# Online Shopping of Technological Products in Kerala - An Empirical Analysis

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**for the Award of the Degree of**

**DOCTOR OF PHILOSOPHY IN COMMERCE**

**By**

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# Declaration

I hereby declare that this thesis entitled '**Online Shopping of Technological Products in Kerala- An Empirical Analysis'** submitted to the University of Calicut for the award of the Degree of Doctor of Philosophy is an original record of research work carried out by me under the guidance and supervision of Dr. P.V. Basheer Ahammed, PG Department of Commerce, P.S.M.O College Tirurangadi.

I also declare that no part of this thesis has been presented for the award of any degree, diploma, fellowship, or other similar title or recognition of any University/Institution before.

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# Certificate

This is to certify that this thesis entitled '**Online Shopping of Technological Products in Kerala- An Empirical Analysis'** prepared by Mr. Shabeer V.P., for the award of the Degree of Doctor of Philosophy in Commerce of the University of Calicut, is a record of bonafide research work carried out by him under my supervision and guidance. No part of the thesis has been submitted for any degree, diploma, fellowship or other similar title or recognition before.

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This is to certify that the adjudicators for the PhD thesis entitled "**Online Shopping of Technological Products in Kerala - An Empirical Analysis**" submitted by Mr. Shabeer V.P., have not suggested any modification or corrections for the thesis and have unanimously recommended the award of the PhD degree in Commerce for the above thesis.

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**Shabeer V.P**

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# List of Abbreviations

| | | |
|---|---|---|
| 4G | - | Fourth Generation |
| AMA | - | American Marketing Association |
| ASSOCHAM | - | Associated Chambers of Commerce and Industry of India |
| B2B | - | Business to Business |
| B2C | - | Business to Consumer |
| C2C | - | Consumer to Consumer |
| CA | - | Company Attribute |
| CE | - | Customer Experience |
| COD | - | Cash on Delivery |
| CVV | - | Card Verification Value |
| DI | - | Diffusion of Innovation |
| EMI | - | Equated Monthly Installment |
| IT | - | Information Technology |
| ITU | - | International Telecommunication Union |
| LCD | - | Liquid Crystal Display |
| LED | - | Light Emitting Diode |
| NBFC | - | Non Banking Financial Company |
| NRI | - | Non Resident Indian |
| OTP | - | One Time Password |
| PA | - | Product Attribute |
| PC | - | Personality of the Consumer |
| PEU | - | Perceived Ease of Use |

| | | |
|---|---|---|
| PG | - | Post Graduation |
| PIN | - | Postal Identification Number |
| PR | - | Perceived Risk |
| PU | - | Perceived Usefulness |
| SEM | - | Search Engine Marketing |
| SEO | - | Search Engine Optimization |
| SMS | - | Short Messaging Service |
| TAM | - | Technology Acceptance Model |
| TNS | - | **TNS** is a world leader in market research, global market information and business analysis |
| TPB | - | Theory of Planned Behavior |
| TRA | - | Theory of Reasoned Actions |
| TRAI | - | Telecom Regulatory Authority of India |
| UNPD | - | United Nations Population Division |
| US | - | United States |
| USD | - | US Dollars |
| WWW | - | World Wide Web |

# CHAPTER 1
# INTRODUCTION

- **Research Background**
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## 1.1 Research Background

The fast growing technological developments gave a new face to the modern world. It brought changes in every field like economical, industrial, social, cultural, educational and political. The development of computer and internet was the most influenced and powerful technological development happened in this era. It can be stated that with the beginning of 21st century, the human generation is transformed in to an 'e-generation'. Compared to various sectors of the nations, industrial sector is the most influenced sector with the development of internet. It has generated tremendous level of excitement and growth in economy, especially in the field of business. The internet has opened a new window of opportunity to the world of business. It helps the entrepreneurs by offering most modern and innovative ways for communicating information, promoting and distributing their products to their target customers. The ability of internet to connect people around the globe without any geographical and political boundary, provided to the business a new scope and platform for doing their business activities. It demolished the pace and place limitations for carrying out all the business activities. Any one who wishes to buy something from the market can easily find products and place their orders virtually from anywhere at any time, 24 hours a day, 7 days a week and 365 days a year.

The e-commerce activities in the field of business have recorded a tremendous growth in the past few decades because of various reasons and it is still growing rapidly. The developments in the technology, economy, education and the changes in the life style of people and their buying capacity throughout the world really boosted the scope and growth of e-commerce activities. Among the consumers, the trend of using computer and internet as a shopping tool has been increasing at an explosive rate throughout the world. The unique function of internet which favors online buying and selling has drawn a great deal of attention from many companies around the world. However, without considering what factors actually motivate the consumers to deal with online shopping sites for purchase of goods and services, many companies rushed in to set up their business over the internet.

When considering the communication of information from buyers to consumers quickly and inexpensively, compared to other traditional mass Medias like television, radio and news papers, internet has the unique advantage of two way communication facility which attracted the business people to set up internet retailing sites to sell their products and services. The increasing rate of adoption of personal computers including smart phones and internet among the consumers have encouraged the companies to provide online retailing shopping sites to market their products and services. Many companies agree that marketing through internet will definitely increase the consumer spending and loyalty. While reviewing the literature, it is seen that, in recent future, the internet marketing will definitely substitute the traditional bricks and mortar stores from the market.

While considering the recent growth and developments in the online business, it can be assumed that many companies are now acknowledging the importance of using the facility of internet in order to market their products and services. But it is interested to note that despite of the increasing popularity of internet marketing, it is wondering that only handful researchers have studied what factors actually influence the consumers while buying goods and services online. It actually makes some difficulty for the internet marketers to formulate their online marketing plans and strategies, which causes losses and failures in this field. Most of the knowledge and information in this important area of marketing is available, based on the unauthentic colorful stories and anecdotes of the paid columnists published through paid medias.

The internet penetration in India is also now increasing at a faster rate. By noticing this factor, similar to the markets of western countries, many foreign companies and Indian companies are now rushing to establish an internet presence in India. But still there is a great deal of confusion and doubts about the actual impact of this new medium of marketing on their business. While reviewing the available literature, it is noticed that only few studies are there to discuss the matters of internet marketing and these studies are mainly focused on areas like e-service quality, web designing and web advertising etc. Some of the previous studies

investigated only the internet user demographics, reasons for shopping online and product preference while making online purchase. No studies actually probed in to the basic issues relating to what factors influence the consumers and why they make a decision to buy products and services online. The influencing factors of their online purchase intention are not at all discussed anywhere in the previous research works. Hence the researcher found there is a gap in the literature to study about the factors that influence the online purchase of technological products among e shopping consumers in Kerala. This thesis "Online Shopping of Technological Products in Kerala- An Empirical Analysis" is an attempt to get in to the depth of online shopping habits for understanding the influencing factors of online purchase among the consumers in Kerala.

## 1.2. The reason to select Technological Products as the Target Products for the Research.

Technological products are the material objects that have been designed by people and developed through technological practice to serve particular functions. Normally technological products are used by individual consumers as well as organizational consumers. The present study mainly focuses on the purchase of technological products which are used by the individual consumers, as the target products in online shopping. After reviewing the available literature and statistics, the researcher is confident about the selection due to the following reasons.

- Due to the fast developments in technology, new innovative technological products are introduced in to the market so regularly.
- The technological products are a high involvement product, requiring consumers to conduct an extensive information search on company and product attributes and benefits before entering in to a purchase decision. This will be easier in online shops.
- The buying capacity and life style of the consumers are showing a progressive growth in the recent years which created an attraction towards using the technological products more often.

- There is an increasing trend of consumers turning in to internet searching for collecting information about technological products. This helps them to compare the products.
- Technological products have become inevitable in our daily life. There will not be any people who are not using any of the technological products. So the number of users of technological products is increasing.
- Online stores are providing price advantage for the technological products compared to the traditional shops. So more consumers are attracting towards online shops especially for the purchase of tech products.
- Online stores are providing easy access of multiple brands of technological products to the consumers.
- Manufactures of the technological products are providing service for the products around the globe. Consumers can visit any service centre of the manufacturer all over the world for getting the service. This facility attracts more and more consumers to purchase the technological products through online stores.
- Manufactures of the technological products are also providing worldwide guarantee for their products. Consumers need to contact the seller or visit the retail shops for getting the warrantee. Consumers need not worry about the maintenance of the product purchased online. This facility also attracts more and more consumers to purchase technological products through online stores.
- The number of persons using internet is increasing which leads to an increase in the number of online purchase also. Hence the researcher is confident about finding the online consumers of technological products easily. So the technological products should prove to be an appropriate choice for this study.

For the purpose of the present study, the scope of technological products is limited only to the electronic products which are normally used by individual consumers rather than organizational customers. These products are classified in to three categories.

**Table 1.1**

**Categorization of Technological Products**

| Category | Items |
|---|---|
| Mobile and Accessories | Mobile phones, Memory cards, Earphones, Adapters, Power banks etc. |
| Computer and Accessories | Laptop, Pen drive, Hard disk, Scanner, Printer, Projector etc. |
| Personal/ Household Items | Watch, LED/LCD, Mixer grinder, Digital camera etc. |

There are tremendous advantages for using internet in marketing products and services. Internet provides a new window of opportunity for marketers to plan innovative activities that have not been previously possible for the business people. However, companies need to develop an insightful understanding and knowledge of consumer behavior when purchasing products and services online. These understandings will be helpful for the companies to plan their marketing mixes and to provide better and useful facilities for buyers to meet their needs and requirements in online purchase. By making such adjustments, marketers can easily establish, maintain and develop customer satisfaction, brand loyalty and provide consumers with a solid rationale for continuing to purchase the same brand of products in future also. Hence the present study is significant as it is a preliminary attempt in the state of Kerala to identify factors and their relative importance in influencing consumers' purchase of technological products online. The research problem and objectives of this study are addressed next.

## 1.3 Research problem and objectives

The purpose of this research work is to identify and analyze the factors influencing the purchase of technological products online by the consumers in Kerala. The research problem addressed was: ***What are the important factors that influence the purchase of technological products among the e shopping consumers in Kerala?***

The specific objectives of the study are:

1. To study the online shopping procedure and to identify the factors influencing online shopping.
2. To analyze the experience and intention of consumers towards online purchase.
3. To explore the relative importance of factors that encourages or discourages consumers from buying technological products online.
4. To analyze the demographic differences among the online buyers in considering the influencing factors of e shopping.
5. To identify the influence of various devices used in online purchase habits of consumers in Kerala.

As this research problem has not previously been investigated in Kerala, the study began with a literature review of previous studies on related subjects, in order to develop a theoretical model for this study. This is closely followed by an exploratory study conducted to generate consumer insight and to refine and explore additional factors, attitudes and intentions towards online purchase of technological products. Finally, a large quantitative online and offline survey was conducted among the internet users in Kerala who have purchased any of the technological products online during the last one year, in order to empirically test and confirm the conceptualized model.

## 1.4 Justification for the research

The study can be justified in terms of both its theoretical and practical contributions. Theoretically this research is contributing to the existing literature about the influencing factors of purchase intention in online shopping and practically it is contributing to the practicing of virtual shopping in Kerala. Each of these contributions is discussed in turn.

### 1.4.1 Theoretical contributions

Although there are several generic international studies on online marketing available in the present literature using the Technology Acceptance Model (TAM), only few research exists with respect to factors influencing consumer's purchase intention when buying technological products online. This is the first empirical study about factors influencing purchase of technological products on the Internet. The theoretical contributions are summarized as follows:

- **Gaps in the literature**

While referring the various previous literatures about internet marketing, it is found that theories like Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and Diffusion of Innovation (DI) theory are the most frequently used theories by the researchers to study about adoption of technologies. But these theories are used by researchers mostly for study about the factors related to the acceptance of technological products such a computers, internet, different software etc. and also these research studies mostly used inappropriate sample size, sampling method which will not be helpful to explain the subject and get into a concrete conclusion. This research study thus contributes to the body of knowledge of present literature.

- **Uninvestigated topic**

The research topic to find out the factors influencing online shopping decisions when purchasing technological products is an uninvestigated topic in this area of study. While reviewing literature, it is noticed that only few studies are there to discuss the matters of internet marketing and these studies are mainly focused on e service quality, web designing and web advertising etc. Some of the previous studies investigating only the internet user demographics, reasons for shopping online and product preference while making online purchase. No studies actually getting in to the basic issues relating to what factors influence consumers and why they make a decision to buy products and services online. The influencing factors of

their online purchase intention are not at all discussed anywhere. Therefore this research study thus contributes to the body of knowledge of this topic.

- **Uninvestigated area**

Most of the previous studies about online marketing are conducted internationally. Only few such studies are conducted to study the behavior of Indian market and none of such studies are there in Kerala. Kerala is a state where the e literacy level of people is very high. People of Kerala are keener about the latest technology adoption. Here IT is a subject of study in the school curriculum. Moreover Kerala is also a major consumer state in India. Hence this research study is significant as it is a preliminary attempt in Kerala to identify factors and their relative importance in influencing consumer purchase when buying technological products online. Hence this research study thus contributes to the body of knowledge of this area.

- **Research model**

Considerable amount of people of Kerala are not using internet and out of the internet users, majority are not making any online purchase. Also there is no study related to this topic conducted in Kerala. As this study examines comparatively a new area of internet marketing, it is hard to find out an explanatory model in the existing literature. By reviewing the available literature in this area, the researcher selected the Technology Acceptance Model to study this topic. A new model has been developed by taking variables from TAM and added some more variables by reviewing the literature especially for this study. This will be helpful for explaining the online purchase intention of e shopping consumers when buying technological products. Hence this research study contributes to the literature for the development of a new research model in this field.

- **Research methodology**

The research topic is a new one in the area of internet marketing. There were no previous studies which discuss the influencing factors on the purchase of technological products in Kerala. The researcher reviewed the available literature

to identify the prospects and elements of internet marketing and there by develop an appropriate theoretical frame work for the study. Then the present system of online marketing was studied to get a detailed knowledge of how the system is working and what are its strengths and weaknesses. Then by discussing the research topic with those people who are in touch with online marketing in any manner, to gain more about consumers' interest towards online shopping, and there by develop hypotheses and proposed model for the study. Finally by preparing a questionnaire based on the information gained from literature review and discussion with the people, a detailed online and offline survey was conducted to collect data from the proposed respondents and to test the hypotheses by using various statistical tools. Hence the research methodology used for the study will contribute to the present literature and will be helpful for the future research in this field.

### 1.4.2 Practical Contributions

This research study also provides some important practical contributions in the field of online marketing. The findings of the study will be helpful in many managerial activities in the online business. Some of the important practical contributions are as follows:

- The study analyzes the development of internet penetration in India and which will be helpful for the companies to decide whether to get into the world of online business or not.
- It will be helpful for the administrators of the online business firms to formulate plans and policies in accordance with the online market needs.
- The marketing managers can formulate marketing strategies to fix their marketing mix so as to provide more satisfaction in accordance with the changing behavior of the online consumers.
- The study gives necessary tips for the web developers to plan and design more effective and useful websites to attract more and more business from the online consumers.

- From the findings of this study, the online business firms may be able to prioritize their products which they offer to their customers, in terms of consumer preference and purchase intention.
- Now a day more and more consumers are turning in to online shops to purchase products and services. It is becoming a threat to the traditional brick and mortar shops. This will compel the government to formulate policies to regulate the online business. The study provides information which will be helpful for the policy makers to formulate regulations in terms of internet, tax issues, security and privacy issues of the customers, fraudulent practices etc.

In brief, the study can be justified in terms of its theoretical and practical contributions to the field of online marketing. It provides a lot of vital information regarding the online purchase intention of e shopping consumers in Kerala when buying technological products. The results of the study contribute to the body of knowledge in this field about the factors which influence online purchase among consumers in Kerala.

## 1.5 Conceptual and Operational Definition of the Terms

The definition and meaning of some of the common terminologies used in online business is explained below.

**E-Commerce**

"E-Commerce is a system for buying and selling of goods and services using Internet as the main means of exchange". (Wikipedia 2016)

**E-tailing**

Electronic retailing is the sale of goods and services through internet. Electronic retailing, or e-tailing, can include business-to-business (B2B) and business-to-consumer (B2C) sales of products and services, through subscriptions to website content, or through advertising.

**Online shopping**

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. (Wikipedia 2016)

**E-Business**

"E-business refers to the complete process necessary to manage an online business". (Wikipedia 2016)

**E-Customer**

"E-Customer is a person who interacts with the business website with the possible intention to conduct some transaction". (Wikipedia 2016)

**E-payment System**

The definition of an electronic payment system is a way of paying for goods or services electronically, instead of using cash or a cheque, in person or by mail.

**E-security**

"E-security refers to the principles which guide safe electronic transactions, allowing the buying and selling of goods and services through Internet, but with protocols in place to provide safety for those involved" (Wikipedia 2016).

## 1.6 Methodology of Research

The study is primarily a descriptive one based on survey method using both Online and Offline questionnaire. Required information is collected from both secondary and primary sources. In the first stage of the research, required information is collected from the available literature to identify and develop a preliminary model for the research work. The present online shopping procedure is also examined as part of the study. After collecting necessary information, by using the Technology Acceptance Model, a preliminary model was put forward and hypothesis were set to carry out the study. In the next stage a detailed questionnaire

was prepared to collect first hand information from the respondents to test the hypothesis specially set up for the study by conducting a survey. The online questionnaire is prepared with the help of Google form.

Samples are drawn from the population by using multi stage sampling method. The entire population of the state of Kerala is divided into three regions, i.e.; North region, Centre region and South region. One district is selected randomly from each zone by using lottery method, i.e.; Malappuram from North region, Ernakulum from Centre region and Trivandrum from South region. The sample populations are selected equally from each region randomly. Data are collected from both rural and urban areas of the state. People from Panchayath are considered as rural population and respondents from corporations or municipalities are considered as urban populations. The survey was restricted to an age group of 16 and above as they are using internet and technological products more often.

## 1.7 Source of Data

Necessary data are collected from both primary sources and secondary sources.

### 1.7.1 Secondary Data

Even though there is no sufficient information available in the literature related to the factors influencing the online purchase of technological products, an attempt is made to find data which is some way related to the online marketing.

The secondary data have been collected from different sources such as:-

- Published thesis and dissertations
- Books, journals and periodicals
- Websites - The present system of online marketing are also examined through various online shopping websites.

### 1.7.2 Primary Data

Primary Data is collected from the Internet users, online shopping firms and consumers of technological products by using a detailed questionnaire and also from direct interactions.

At the first stage the researcher interacts with those people who were using internet and in some way familiarize with the online shopping. The interview is conducted on the basis of a preliminary questionnaire developed from the initial objectives and from the literature review and data collected thereby used to prepare a final questionnaire for the online survey.

In the next stage by using the final questionnaire a detailed online and offline survey was conducted to collect data regarding the factors influencing the online purchase of technological products.

## 1.8 Scheme of the study

The study is structured into 6 chapters to present the research topic in a simple and understandable form.

**Chapter 1-** The first chapter of the thesis provides an overall view of the study. The fast growing importance of online business in the present scenario, relevance of selecting technological products as the target product of the study, research problem and objectives, its practical and theoretical contributions to the body of knowledge, the methodology developed and used specially for this study and the limitations faced by the researcher are also presented in this chapter.

**Chapter 2-** The second chapter is presenting a theoretical overview of the topic by reviewing various literatures already published related to the area of study. A number of published literature and various websites which is some way related to online marketing are referred and screened it to present only those reviews which are relevant for the study and to transact the research topic.

**Chapter 3-** This chapter contains the online shopping profile in India by showing the details of the development of online shopping, the list of various online shopping companies in operation in India, the steps in online shopping procedures, various safety measures to be taken while making online purchase and procedure to be followed to set up an online business.

**Chapter 4** covers questionnaire development, data collection method, and the method of survey administration are explained, substantiated, and discussed in detail.

**Chapter 5** analyses and presents the results of the data collected in two stages and the statistical analysis to test hypotheses by using different tools is also done.

**Chapter 6** evaluates the research findings from the previous chapter. A summary of each hypothesis is presented and conclusions are drawn in relation to theoretical and practical contributions. Major suggestions are also pointed out based on the findings. Limitations of the study are noted and opportunities for future research are also suggested.

## 1.9 Limitations of the Study.

The study is based on the opinions and experiences of the online consumers. The particular nature of the area of this study online marketing, few important limitations and challenges are observed and listed below.

- The study focuses only on online purchase of individual consumers. Organizational consumers are not included in the study.
- The study is based only on consumer's point of view. No data were collected from the seller's point of view.
- Premium membership of online shopping sites such as “Amazon prime” for which additional offers like free and quick delivery are offered is not taken in to consideration.

- The study is limited to the online consumers of the state of Kerala only and the findings may not be applicable to other areas, as vast differences exist among the consumers with regard to demographic and psychographic characteristics.

## 1.10 Conclusion

This chapter summarizes and concludes an overview about the research topic by mentioning the research problem, objectives, justification, methodology, outline and the limitations of the scope of this research study. The researcher developed his work by considering this outline as the foundation for further progress.

## References


Cheung, C. M. K., Zhu, L., Kwong T., Chan, G. W. W. & Limayem, M. (2003), *Online consumer behavior: a review and agenda for future research*, 16th Bled ECommerce Conference, Bled Slovenia, 194-218, June 2003.

C.R.Kothari, (2004), Research Methodology and Techniques (second revised edition), New Age International Publishers: New Delhi.

Lackana Leelayouthayotin, (2004). Factors influencing online purchase intention: The case of health food consumers in Thailand. *Doctoral Thesis*, University of Southern Queensland.

Paneerselvam, R. (2010). Research Methodology. New Delhi: PHI Learning Private. Limited.

Ram Ahuja (2002). *Research methods*. Jaipur: Rawat Publications.

Ranjith Kumar (2014). *Research methodology: A step-by-step guide for beginners*. Noida: Sage Publications India Private Limited.

Ratan Khasnabis & Suvasis Saha (2015). *Research methodology*. Noida: Universities Press (India) Private Limited.

**Internet Cite visited**

https://www.investopedia.com/terms/e/electronic-retailing-etailing.asp#ixzz5NlomYgLy

http://www.Wikipedia.com

http://technology.tki.org.nz/Technology-in-the-NZC/Technological-knowledge/Technological-products

# CHAPTER 2

# REVIEW OF LITERATURE

- **Introduction**
- **Internet Penetration**
- **Internet and Internet marketing**
- **Online and Offline Decision making**
- **Online marketing payment issues**
- **Characteristics of online consumers**
- **Key drivers in Indian Online marketing**
- **Theory of Reasoned Action (TRA)**
- **Theory of Planned Behaviour (TPB)**
- **Technology Acceptance Model (TAM)**
- **Research Constructs**
- **Conclusion**

## 2.1 Introduction

It is important to analyze what has happened in the past before getting in to a decision to start any new venture. As far as the research topic is concerned, online marketing is comparatively a new area of business and retail marketing when compared to traditional bricks and mortar shops. There were very few studies conducted in this area worldwide. The researcher made an extensive review of available literatures which are some way related to the research area, factors which influence online purchase of technological products among e shopping consumers.

Here in this chapter, the researcher reviewed and presented the literatures which are relevant in terms of identifying the importance of the research topic and effect of the factors influencing the purchase of technological products among e shopping consumers in Kerala. This helped the researcher to develop a conceptual model so as to conduct the study in order to satisfy its meaning and objectives. The literature related to the background and concept of marketing, internet, internet marketing, purchase intention, various theories of purchase behavior etc are also reviewed in this chapter. Based on these reviews, the researcher identified the gaps in the previous studies, developed certain hypotheses and also a primary conceptual model for the study.

## 2.2 Marketing

Marketing nowadays comes in a large variety of views and angles based on media platform, audience and business in today's dynamic and evolving marketplace. The techniques of marketing are used in both business and non business organizations. It is a strategy used to popularize products or services across a particular area of market. Marketing is meeting the needs and wants of the consumer. In an economic point of view, it can be said that marketing is the process by which a firm profitably translates customer needs into revenue

According to the American Marketing Association (AMA) Board of Directors, Marketing is the activity, set of institutions, and processes for creating,

communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.

Dr. Philip Kotler defines marketing as “the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit. Marketing identifies unfulfilled needs and desires. It defines measures and quantifies the size of the identified market and the profit potential. It pinpoints which segments the company is capable of serving best and it designs and promotes the appropriate products and services.”

According to Julie Barile, Vice President of e Commerce, Fairway Market, Marketing is traditionally the means by which an organization communicates to, connects with, and engages its target audience to convey the value of and ultimately sell its goods and services. However, since the development of digital media, particularly social media and innovation of technology, it has increasingly become more about companies building deeper, more meaningful and keeping relationships with the people that they want to purchase their goods and services. The ever-increasingly fragmented world of media complicates company’s ability to connect and, at the same time presents incredible opportunity to forge new territory.

The internet technology provides tremendous opportunity to the world of business. It helps in all sectors of business like marketing, production and personal management etc. In addition, the internet technology also reduces overall cost, streamlines marketing activities and drives new business process. The internet technology helps the business to build relationship, assist in developing and improving effectiveness and efficiency in marketing activities, research and development function and offers a new channel for business promotion. Inspite of the tremendous growth rate and unbelievable popularity of the internet, lot of business firms have failed to exploit the opportunities of it. To study more about the internet marketing, first we have to study and analyze the concept, history and growth of internet technology, reason for using it and dynamic changes and penetration during the past decades.

## 2.3 Internet

The origin of the internet technology can be traced date back to a research experiment commissioned by the United States Department of Defense in the 1960's to build robust and decentralized fault tolerant communication network. Iinternet is a network that consists of public, private, business, academic and government networks of local to global scope, connected with a broad array of wireless, electronic and optical network technologies.

Internet is a networking system of interconnected computers around the globe that uses the internet protocol suite to link the devices, which allows to access data from it and helps to communicate each other for the individuals and firms. There is no geographical or political boundary for it to operate. The adoption rate of internet is too high compared to any other technology in the world. (Strauss & Raymond 1999).

The most significant and notable advantage of two way communication provided by the internet creates an endless and incomparable marketing opportunities to the business world compared to any traditional mass communication channels of marketing like television, radio, telephone, paper mail and newspapers. (Warrington, Abgrab & Caldwell 2000).

### 2.3.1 Internet Penetration

The development of internet is the base of online business. The performance of online business will be improved as the internet penetrates in to more and more population in the world.

As per the annual report of Telecom Authority of India (TRAI), 2016-17, India is witnessing revolution in the internet service. The telecom sector in India saw the advent and adaption of 4G network in the year 2016-17. New players have come in to the telecom sector and took this sector in to a new level of competition. Major competition took place in the area of internet usage tariff. Various network providers introduced more and more flexible data packs for the consumers. As a result of this

competition, the data usage proliferated among the consumers. The number of mobile towers and base stations also increased during these periods and which lead more coverage and reach for the network. This report also mentioned the increased availability and usage of smart phones in India, during this period. The number of internet subscribers in India has also increased at a considerable rate. The Internet subscriber base in India as on 31/12/2017 stood at 422.19 million whereas it was 342.65 million as on 31/12/2016. It is found that the total broadband subscriber base in India as on 31/12/2017 is 276.52 million as compared to 149.75 million on 31/12/ 2016.

The introduction of the WWW (World Wide Web) graphical browser leads to the explosion of the internet usage around the globe. The web has enabled the wide dissemination of information compared to the traditional Medias. The development of web browsers like Internet Explorer, Google chrome, Mozilla Firefox etc lets the users of internet to navigate from one web page to another via hyperlinks. It helps the users to access and publish ideas and information from and to a large audience online at reduced expense and time delay. The growth and penetration was further driven by the development of e literacy among the people, development in the telecommunication system, reduced price of computers, and the overall economic development.

Even though the usage and business potential of internet are different from country to country, it is becoming the most influencing and powerful channel of communication around the globe. The useful and informative functions of the internet have attracted lot of people to it and the users have increased at an increasing rate. The amount of investment in this channel has also increased along with this at an exponential rate.

From the table it is clear that the internet user's growth rate is so high compared to the population growth rate. The number of internet users is increasing year by year, especially in the past few years. When we look at to the percentage of population with internet users in 2014, it is 40.4 percent. The table shows that each

year this percentage has increasing considerably. From this trend, it can be assumed that within few years almost all population will use internet.

**Table 2.1**

**World internet users' penetration**

| Year (July 1) | Internet Users | Users Growth | World Population | Population Growth | Penetration (% of Pop. with Internet) |
|---|---|---|---|---|---|
| 2014* | 2,925,249,355 | 7.9% | 7,243,784,121 | 1.14% | 40.4% |
| 2013 | 2,712,239,573 | 8.0% | 7,162,119,430 | 1.16% | 37.9% |
| 2012 | 2,511,615,523 | 10.5% | 7,080,072,420 | 1.17% | 35.5% |
| 2011 | 2,272,463,038 | 11.7% | 6,997,998,760 | 1.18% | 32.5% |
| 2010 | 2,034,259,368 | 16.1% | 6,916,183,480 | 1.19% | 29.4% |
| 2009 | 1,752,333,178 | 12.2% | 6,834,721,930 | 1.20% | 25.6% |
| 2008 | 1,562,067,594 | 13.8% | 6,753,649,230 | 1.21% | 23.1% |
| 2007 | 1,373,040,542 | 18.6% | 6,673,105,940 | 1.21% | 20.6% |
| 2006 | 1,157,500,065 | 12.4% | 6,593,227,980 | 1.21% | 17.6% |
| 2005 | 1,029,717,906 | 13.1% | 6,514,094,610 | 1.22% | 15.8% |
| 2004 | 910,060,180 | 16.9% | 6,435,705,600 | 1.22% | 14.1% |
| 2003 | 778,555,680 | 17.5% | 6,357,991,750 | 1.23% | 12.2% |
| 2002 | 662,663,600 | 32.4% | 6,280,853,820 | 1.24% | 10.6% |
| 2001 | 500,609,240 | 21.1% | 6,204,147,030 | 1.25% | 8.1% |
| 2000 | 413,425,190 | 47.2% | 6,127,700,430 | 1.26% | 6.7% |

* estimate for July 1, 2014 , Source: ***Internet Live Stats*** (elaboration of data by *International Telecommunication Union (ITU)* and *United Nations Population Division)*

From the table, it is clear that the number of internet users have increased from 16 percent of the population to 40 percent with in a time span of 10 years. From the data about internet users in developing nations and developed nations, it is clear that the internet penetration in developing countries is much higher than in developed countries. There is 4 times increase in the percentage of internet users (8% to 32%), in developing nations, while in developed nations it is only from 51% to 78%.

**Table 2.2**

**Internet User Penetration based on Economic Status of Nations**

| | **2005** | **2010** | **2014*** |
|---|---|---|---|
| World Population | 6.5 billion | 6.9 billion | 7.2 billion |
| Population not using internet | 84% | 70% | 60% |
| Users of Internet | 16% | 30% | 40% |
| Internet Users - Developing Nations | 8% | 21% | 32% |
| Internet Users - Developed Nations | 51% | 67% | 78% |

*Source: international Telecommunications Union. *estimate.*

From the table, it is clear that the usage of internet is increasing each year world wide. China contributes almost 22 percent towards the number of world internet users who is the top in the list. India stands at the third position in the number of internet users' world wide. But percentage of population with internet users, the list shows that India has the poor penetration rate 19.19 percent which is the worst in the list. Even though India is contributing only 8.33 percent towards the world internet users, when we look at to the one year growth rate India stands top in the list with 14 percentages. It means the internet and its usages are becoming more and more popular among the Indian population. Now it is becoming part of our life style. People are spending more time in the internet for various purposes.

**Table 2.3**

**List of Top 10 countries by internet usage**

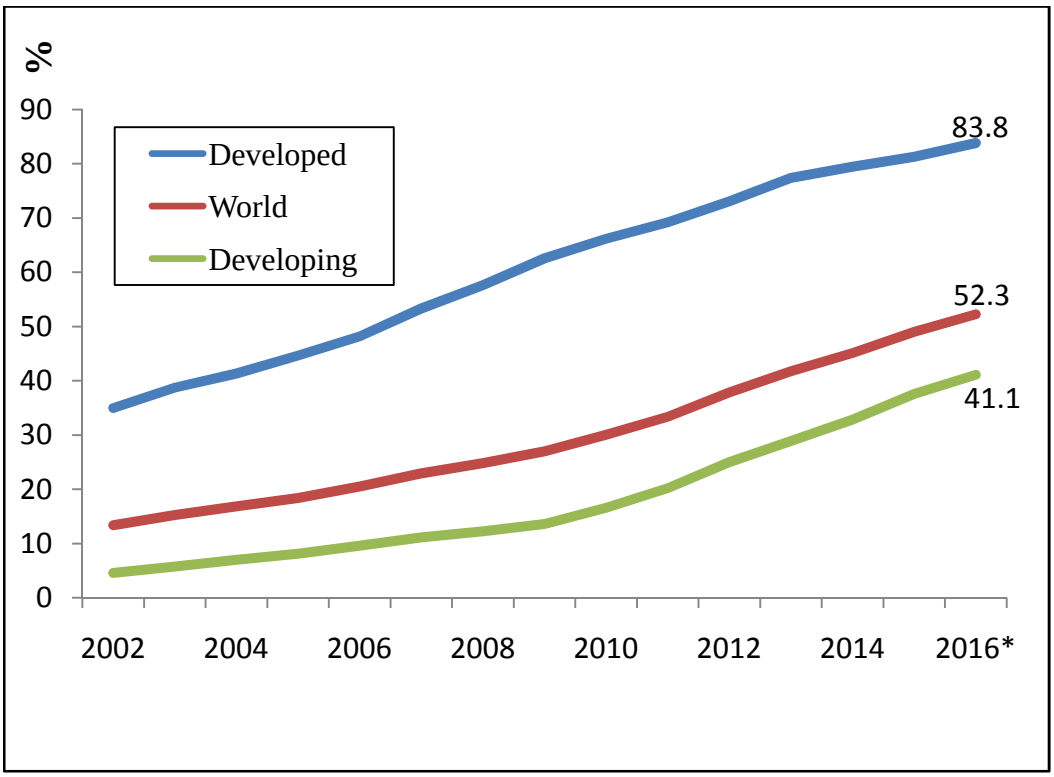
| Rank | Country | Internet Users | 1 Year Growth % | 1Year User Growth | Total Population | 1 Yr % Population Change | Penetration (% of Pop. with Internet) | % Share of World Population | % Share of World Internet Users |
|---|---|---|---|---|---|---|---|---|---|
| 1 | China | 641,601,070 | 4 | 24,021,070 | 1,393,783,836 | 0.59 | 46.03 | 19.24 | 21.97 |
| 2 | US | 279,834,232 | 7 | 17,754,869 | 322,583,006 | 0.79 | 86.75 | 4.45 | 9.58 |
| **3** | **India** | **243,198,922** | **14** | **29,859,598** | **1,267,401,849** | **1.22** | **19.19** | **17.50** | **8.33** |
| 4 | Japan | 109,252,912 | 8 | 7,668,535 | 126,999,808 | -0.11 | 86.03 | 1.75% | 3.74 |
| 5 | Brazil | 107,822,831 | 7 | 6,884,333 | 202,033,670 | 0.83 | 53.37 | 2.79 | 3.69 |
| 6 | Russia | 84,437,793 | 10 | 7,494,536 | 142,467,651 | -0.26 | 59.27 | 1.97 | 2.89 |
| 7 | Germany | 71,727,551 | 2 | 1,525,829 | 82,652,256 | -0.09 | 86.78 | 1.14 | 2.46 |
| 8 | Nigeria | 67,101,452 | 16 | 9,365,590 | 178,516,904 | 2.82 | 37.59 | 2.46 | 2.30 |
| 9 | UK | 57,075,826 | 3 | 1,574,653 | 63,489,234 | 0.56 | 89.90 | 0.88 | 1.95 |
| 10 | France | 55,429,382 | 3 | 1,521,369 | 64,641,279 | 0.54 | 85.75 | 0.89 | 1.90 |

* estimate for July 1, 2014 , Source: ***Internet Live Stats*** (elaboration of data by *International Telecommunication Union (ITU)* and *United Nations Population Division(UNPD))*

Some of the important statistics show that the internet penetration in India is very much influenced by the increase in the usage mobile phones. It provides internet access to the consumers in both home and outside.

**Diagram 2.1**

**Percentage of Household with Internet Access by Level of Development**




Source: ITU World Telecommunication /ICT Indicators database

From the above diagram it is clear that 83.8% of household in developed countries have internet accessibility. In case of developing countries it is 41% and while looking at to the world it is 52.3%. It is clear that the, from 2002 onwards the trend of using internet is increasing over the years even in the developing countries.

The report from various internet service providers shows that internet subscribers in India are increasing in the recent years. The mobile internet usage plays a vital role in this change.

**Table 2.4**

**Internet subscribers in India**

| | Segment | | Internet Subscribers | | % Growth |
|---|---|---|---|---|---|
| | | | 2016 | 2017 | |
| A | Wired | | 20.44 | 21.58 | 5.53 |
| B | Wireless | Fixed | .553 | .582 | 5.32 |
| | | Mobile | 321.66 | 400.04 | 24.37 |
| **Total** | | | **342.65** | **422.20** | **23.21** |

TRAI annual report 2016-17 (Subscribers in millions)

The above table clearly indicates that the total internet subscribers in India have increased by 23.21% in a single year during 2016- 2017. A major portion of this increase is contributed by mobile internet subscribers.

## 2.3.2 Internet and Internet Marketing

Pallab (1996), studied about the penetration of internet and how it influences the marketing function. In his article *marketing on the Internet* he concludes that, the emergence of Internet is the reason behind the growth of online marketing. The Internet is a worldwide network of computers that allows individuals to access information and communication from distant sources. He continues that it is a new technology that has the highest adoption rate compared to other information technology tools.

Waldo.B.H, (2000), in his study about *Re defining the Health Care Landscape with the Internet,* states that Internet creates endless marketing opportunities irrespective of the area where it applies, by providing a significant advantage of two-way communication, which is different in all ways from other traditional mass marketing communication medias.

Philip Kotler (2003), about the *Trends on the new medium of communication,* explains that Internet is fast and growing, not only in the nature of communication but also in the nature of products, and the delivery of them (e-

shopping). Indeed all four factors of the marketing mix, four 'P's being product, price, place, and promotion defined by Kotler, are influenced by the internet.

J Suresh Reddy (2003), in his article about the *Impact of E-commerce on marketing*, mentioned the importance of Internet in marketing. According to him, Internet is providing companies new and improved channel of communication and interaction. Internet can create and maintain closer and more cost effective relationships with customers in customer support and marketing. It also creates a positive relationship with customers that can be serving as the basis for long term interaction and encourage repeated business.

Khan and Mahapatra (2009) in their study about "Service quality evaluation in internet banking: an empirical study in India", remarked that Internet technology has opened the way to internet marketing. As far as the service quality of the business units is concerned, internet plays a vital role in its improvement. Internet provides new modes of information based processes for communicating with the customers like online order taking, advertising and customer services etc. It can also help in reducing cost in business activities like communication with the customers as well as suppliers and trading partners. With the help of internet, a business can also reduce its efforts, time and expenditure in various areas that otherwise traditionally add to the cost of goods and services of the business.

## 2.4 Internet Marketing/ Online Marketing

Online/ internet marketing is defined as "the art and science of selling products and/or services over digital networks, such as Internet and cellular phone networks"

Internet marketing, also called online marketing and digital marketing, is the process of using the web and internet-connected services to promote the business and website. There are a number of disciplines within internet marketing. Some of these include social media, Search Engine Optimization (SEO), Search Engine Marketing (SEM), email marketing, online advertising and mobile advertising. (Irfan Khan, 2015)[5].

Bourlakis et al., (2008) in his study about *e-consumer behavior* states that internet shopping now a day has been so widely and commonly accepted as a way of purchasing products and services. It has become a more popular means for buying and selling in the Internet world. It also provides consumer more information and choices to compare product and price, more choice, convenience, easier to find anything online.

Lee GG and Lin HF (2005) while studying about the *e-service quality* identified the facts that, with the rapid global development of the electronic commerce, more and more business are attempting to gain competitive advantages by using the e-commerce to interact with customers and make them loyal to the firms.

### 2.4.1 Scope and Challenges of Internet Marketing

Codilar (2017), in their article about e- commerce in India- growth and statistics states that the e- commerce business in India has began to take its shape and is expected to continue its phenomenal growth. The pace of e- commerce growth in around the world and especially in India is remarkable due to the coherent support of many factors such as busy schedule of people, convenient internet access and increased use of smartphones.

Swati Prasad (2013) concludes her article about *online shopping- catching fancy of Indian consumers*, with the view of insufficiency in online sites in accordance with the growing number of online consumers, and the importance of establishing many more online sites in India. She also pointed out that the quality of service of the prevailing online sites also needs to improve to attract more and more customers to e-shopping. Swati Prasad by considering some recent studies presented her view that there was a time when marketers complained about Indian consumer being skeptical of using plastic on the internet. They actually want to touch and feel a product in traditional style before spending money on it. But, things have changed a lot in the recent times-the Indian consumer now buys a lot through online.

Mark Brohan (2013) in his article about e-commerce intelligence says that it is an exciting time to be in e-commerce in India, because even though the market has been developing since 2000 it's still very early in the development stage. So more and more e-shopping sites have to be played in India in order to increase the market share as well as induce people to buy online. Today the average consumer in India who shops online may do two or three transactions per month. In just a couple of years as the market grows and matures, the average online shopper could be doing more like four to five transactions per month.

Times of India (February 12, 2013) has published the top five motivators and four barriers for shopping online. The motivators are cash back guarantee, cash on delivery, fast delivery, substantial discounts compared to retail, and access to branded products, while barriers include inability to touch and try products before purchase, fear of faulty products, apprehension of posting personal and financial details online and inability to bargain.

D. K.Gangeshwer (2013), in his paper, internet marketing on Indian context discussed about the top motivating factors of shopping online and also he pointed out some of the disadvantages of e-Marketing like dependability on technology, security, privacy issues, maintenance costs due to a constantly evolving environment, higher transparency of pricing and increased price competition, and worldwide competition through globalization.

Internet world stats (2013) shows that the penetration of e-commerce in India is low, compared to markets like the United States and the United Kingdom, but is growing at a much faster rate with a large number of new entrants.

Advantages enjoyed by consumers who buy online are, convenience, being able to conduct a wider information search, being able to make a broader product selection, buying at better prices, and having fun shopping experiences.

Vishal Midha (2012), while studying about the impact of consumer empowerment on online trust across genders, argues that while e-commerce has grown substantially over the last few decades, it still marks with the lack of trust and

growing privacy concerns. Hence, still people are hesitating to enter in to the world of e-shopping.

Failte Ireland (2012), in his article about *introduction to the various ways in which you can market your business online*, explains that now a days more and more people spend time on line and they are spending less time with traditional media such as newspapers, TV, and so on. So it's becoming too difficult to target customers using traditional channels. In this scenario Internet Marketing is typically a less expensive and a more effective method of targeting potential customers.

Karoor (2012) in his study about e-commerce in India explained that e-commerce encapsulates many of the trading activities involved in traditional retailing. By analyzing the trend in e-commerce in India, it can be said that online commerce in India is destined to grow both in revenue and geographic reach.

Ruckman (2012), while discussing about 10 advantage of online marketing, pointed out that now a days marketing departments are investing more into online marketing because of its numerous advantages like effectiveness in reaching the target customer, Faster and less expensive, open all time, and the success are identifiable and repeatable.

Comegys et al., (2009) in their study about effects of consumer trust and risk on online purchase decision-making, states that the source risk comes in the stage of information search and evaluation because the information in the web sites might contain some mistakes. Some websites require customers to register before searching their website. As such, in addition to product risk, consumers also face the risk of information security in online shopping.

Prasad and Aryasri, (2009) in their study about the determinants of shopper behavior in e-tailing, explain that the web site feature is one of the important things that can influence consumers to buy product online. For example, online retailers can use high technology to improve their websites in order to influence consumer perceptions of the web environment.

Lian and Lin, (2008), while studying about the effects of consumer characteristics on their acceptance of online shopping, states that the development of the internet has increased the number of online shopping activities. Still, many internet users hesitate to purchase online due to privacy and security concerns. In spite of all this, online shopping is continuing to grow and online enterprises become more sophisticated, which results in the dramatic change of how consumers buy products and services.

Koo et al., (2008) in their study about the personal values as underlying motives of shopping online, explains that when customers have enough information, they will need to compare those choices of products or services. In the search stage, they might look for the product reviews or customer comments. They will find out which brand or company offers them the best fit to their expectation. During this stage, well-organized web site structure and the attractive design are important things to persuade consumers to be interested in buying product and service. During the purchasing stage, product assortment, sale services and information quality seem to be the most important point to help consumers decide what product they should select, or what seller they should buy from

Yu and Wu, (2007) in their study about determinants of shopping behavior, they explained that the modern consumers who look for more convenience and speed, online shopping has been shown to provide more satisfaction

Koyuncu, C. and Bhattacharya,G (2004), studied about the impacts of quickness, price, payment risk, and delivery issues on online shopping, found that consumers regarded the longer delivery time for the products bought online and the perceived risk involved in online payment as negative features of e-shopping. They were also pointed out the positive intention of individuals to buy online and why e shopping increases its popularity as quick and efficient browsing, better price for the product compared to traditional shops plus a greater number of product alternatives.

Keen C, et al; (2004), in their study about e-tailers versus retailers: which factors determine consumer preferences?, found that lower prices have led individuals to increase their shopping from online market. Price is undoubtedly a

key factor in many decisions to shop online but product and other features have also been found to be important factors in online marketing.

Kunkel J.(2003), in his study about the risk factor in online marketing reveals that consumers have concerns about providing their credit card numbers online due to unauthorized use thereof, hackers and viruses.

Cheung et al. (2003) while discussing about online consumer behavior, suggested the five main factors influencing consumers' online purchasing intentions and adoptions. They are the consumer's individual characteristics, the medium's characteristics, product/service characteristics, environmental influences, and merchant and intermediary characteristics.

Liang and Lai, (2002) studied about the multi-attribute analysis of preferences for online and offline shopping: Differences across products, consumers and shopping stages pointed out the importance of understanding the post-purchase behavior of consumers in e- shopping. Consumers sometimes have a problem or concern about the product, or they might want to change or return the product that they have bought. Thus, return and exchange services become more important at this stage. The online sellers need to give proper attention to deal with this problem of post purchase behavior.

Abramson and Hollingshead (1999), in their study *Marketing on the Internet - Providing Customer Satisfaction* pointed out that the prices for goods on the internet may be relatively low for various reasons. For example, the overhead cost of maintaining a web site is much less than that of a regular retail outlet, yielding a cost saving which may be passed on to the consumer.

Hager D et.al; (1999), while studying about the basics of user- friendly web design, explains that online consumers have difficulties using web applications. It is often difficult to find a desired item or difficult to move between successive phases of a transaction or it just takes much longer than a similar transaction by using the telephone.

Studies from the late 1990s, such as Smith et al, on the factors leading to online purchasing suggested that online consumers are willing to trade-off convenience and price. E-retailers who make it easier to find and evaluate products by better search tools or website design may be able to charge a price premium to time sensitive consumers.

From the review of the above literature, the researcher identified the following scope and challenges in the field of internet marketing.

**Table 2.5**

**Internet marketing- Scope and Challenges**

| Sl No. | SCOPE | CHALLENGES |
|---|---|---|
| 1. | Number of online consumers are increasing at a faster rate | Lack of technological literacy among ordinary people |
| 2. | Numbers of online shopping sites are also increasing. | Traditional touch and feel concept of Indian consumers. |
| 3. | Business can run 24 hrs a day and 7 days a week. | Consumers fear about delivery of faulty products |
| 4. | Comparability of products and price before making purchase | Fear of furnishing personal and financial information. |
| 5. | Faster and less expensive marketing strategy. | Indian consumers are skeptical on using Debit/ Credit cards. |
| 6. | Offers of cash back guarantee and cash on delivery | Risk involved in the online payment. |
| 7. | Easy access of multiple brands which are normally not available locally. | Inability to bargain. |
| 8. | Fewer prices compared to traditional market. | Limited number of transactions compared to traditional stores. |
| 9. | Providing fun shopping experience attracts more customers. | Fear about the return policy. |

Source: Developed for the research

## 2.4.2 Internet Marketing Penetration

While study the literature about internet marketing, it can be observed that the internet/ online marketing in India is showing a study increase over the years.

The result of the Generation Zed survey (2015) conducted by the leading IT Company in India, Tata Consultancy Services among 1200 students shows that, 82% are making online shopping and 56% are purchasing electronic products online. Among the online electronic product buyers, 59% are boys and 40% are girls. The study also reveals that majority of the population are using smart phones to access the internet.

A new joint study by Assocham and Grant Thornton (2015) indicates that online shoppers are expected to increase from 20 million in 2013 to 40 million in 2016, as an additional 200 million Indians will access the Internet in the next three years, with majority of them coming online through smart phones. According to the study, a significantly low (19%) but fast-growing Internet population of 243 million in 2014 is an indicator of the sector's huge growth potential in India. The study also showed that the number of users making online transactions has increased and the women participation has also grown exponentially. This underlines the potential of Internet use in India and as internet penetration increases, the potential of growth of the e-commerce industry will also increase.

Cataline Zorzini (2015), study about the *State E-Commerce in 2015, ecommerce platforms* finds that throughout the past few years, internet retail sales have seen a steady growth, as more and more people start using their smart phones and tablets to complete their shopping, brick-and-mortar stores will soon see a decline in their sales. Even though online sales still only makes up a small part of the retail market, the types of things people are purchasing online will have a huge impact in the future.

Richa Maheshwari & Sobia Khan (2015) in their article about the *Factory outlets competition with the online shopping due to higher discounts,* mentioning the impact of online shopping on discounted factory outlets that most companies are

finding it tough to maintain their discounted factory outlets as consumers are increasingly turning to shopping online due to the lure of bigger discounts. Many of the discounted factory outlets are either sold or shut operations in the past two years.

Google Trends (2012) The report compiled by combining data from Google Trends and online research conducted by TNS Australia with a sample size of 800 respondents on behalf of Google India reveals that in the year 2011 to 2012, consumer interest in online shopping in India grew 128 percent compared to only 40 percent the previous year. Peoples in non-metro cities are also becoming fashion and brand conscious. Online sites are helping them to overcome the geographic divide.

Rajan Anandan (2012) makes his statement based on the data collected through online research conducted by market researcher TNS that, consumer interest on online shopping was the highest for consumer electronics at 34 percent, followed by apparels and accessories at 30 percent. Other product categories that Indians searched for online were books (15 percent), beauty and personal care (10 percent), home and furnishing (6 percent), baby products (2 percent), and healthcare (3 percent). He further explains that with approximately 8 million Indians shopping online in 2012. The online shopping industry in India is growing rapidly and will continue to see exponential growth. By looking at the trends in 2012, it is expected that 2013 will be a strong growth year for players who're focused on fast-growing categories like apparels and electronic accessories, and niche product categories. It is expected that growth will come from outside of the top eight metros. He further points outs the future prospects of e-shopping by mentioning that there are a total of only about 70 e-commerce companies in India. Currently the industry is worth about $10 billion, but in the next three to four years, it is expected to rise to $30 to $40 billion.

Avnish Bajaj (2012), based on market research conducted by Forrester Research Inc. and Matrix Partners India states that compared to the more mature and far bigger online retail markets in the U.S and Europe, India’s e-commerce sales are relatively small. They are estimated at about $1.6 billion. But the Indian direct-to-consumer e-commerce market is likely to double in size to more than $3 billion

within three years, and could grow to reach $15 billion by 2017. India's online customer base of around 20 million shoppers could increase as much as 1400% and reach 300 million shoppers within 10 years. Catering to Indian consumers that connect to the web via mobile phones will be the key to e-commerce success in India. Over time India's base of 80 million consumers with a personal computer connection to the Internet will be superseded by 220 million consumers with a Smartphone.

G. T. Waghmare (2012) in his article about *E-commerce; A Business Review and Future Prospects in Indian Business*, finds that currently, shoppers in metropolitan India are driving e-Commerce. These consumers are primarily buying travel, consumer electronics, and books online. Even though spending per online buyer remains low, these people make purchases online at least once in a month. Consumers in nonmetropolitan areas are also getting in to this stream by shopping online for goods that are unavailable at local stores.

The Economic Literature Review (2007) reveals that the internet shopping in the coming future continues to grow rapidly and there is evidence that this is beneficial not only to the e-tailer, but also to consumers in terms of lower prices, increased access to information and increased choice.

Parikh (2006) in his study *Profiling Internet Shoppers: A Study of Expected Adoption of Online Shopping in India,* aimed at profiling online shoppers and the results of his study showed that long-term internet surfers, with heavy usage had the strongest affinity for internet shopping. In addition to this, prior experience of internet shopping had a multiplying impact on future intention to shop through internet.

Adesara, (2005) in his article *New consumer mantra: Have money, will indulge in lifestyle spends* predicts that, Indian e-tailing market was Rs 4000 million in the previous years and it is expected to be a market worth Rs 8000 million by the end of 2005. In 2006, the size was expected to increase to Rs 12,000 million, and in 2007 to Rs 20,000 million. By 2008, the market is estimated to grow to Rs 50,000 million, while by 2010, the size would increase to as much as Rs 100,000+ million.

(Techtree (2005), A research group, Juxt Consult, conducted an on-line survey of over 30,000 net users in India and found that 40 per cent of urban net users are also on-line buyers and as little as 5 percent of the net consumers contribute to as much as 42 percent of the total sales on the net.

### 2.4.3 Online and Offline Decision Making

Yulihasri et al,(2011) in their study about the factors that influence customers buying intention on shopping online, explains the importance as well as merits of online marketing. They conclude their study on the opinion that nowadays Internet is not only a networking media, but also a transaction medium for consumers at global market in the world, and becomes a dominant retailer in the future. According to them the most necessary element of e-tail offers a direct interactive channel as well as no time definition, people and place. To shop on Internet becomes an alternative for consumers since it is more comfortable than conventional shopping which usually attributed with anxious, crowded, traffic jam, limited time, parking space etc

Gregory Karp (2009). While discussing on the acceptance of Online shopping, Gregory Karp indicates that online shopping can be a smart consumer's best friend, with the ability to easily comparison shop, search for discounts and make purchases with a few mouse clicks.

The study conducted by Chua et al,(2006) about the factors influencing online purchase intention in Taiwan: an empirical study based on the value-intention framework reveals that the new concept of online retailing has captured the interest of many retailers and merchants because of the recognition that online shopping will is considered as an alternative channel alongside traditional offline retail channels such as physical retail stores and for online firms it is important to have a good understanding of the marketplace for their products and their target customers before engaging in online retailing. With a good understanding of their target customers, online retailers and entrepreneurs may be able to develop more effective and

targeted online retail operations that meet the requirements and expectations of their online Shopping customers.

The findings of the study of Gordon and Bhowan (2005), about the analysis of preference for online and offline shopping reveals that the respondents rated attributes related to the search process, such as shopping quickly, having a large selection of products and best price as being better delivered online than offline. On the other hand, attributes related to experience with the product such as the ability to see, touch or handle the product, and attributes related to the delivery process, such as personal service and speedy delivery, were rated as being better delivered offline than online.

Levin et al; (2005), in their study, explains that, for 'high touch' products like garments, consumers feel that they need physical experience, which require an offline presence, at least at the final stage of purchase. On the other extreme, 'low touch' products like travelling tickets or computer software are products that favor online services both because of the nature of the product and the importance of shopping quickly. Preference for shopping online has been found to be particularly strong for products of service nature and technological in nature, where most attributes can be determined online.

As modeled in the study of Bakos and team (2005) about the Impact of E-Commerce on Competition in the Retail Brokerage Industry, differences in levels of information held between the consumers may also be a decisive factor in the choice between online and offline shopping.

In the studies of Brynjolfsson, Smith and Montgomery(2004), about the consumer choice behavior at internet shop bots reveals that price is the most decisive factor in the choice of e-shopping. Internet retailers charge lower prices than conventional retailers.

Keen C and his team (2004), found in their study about the factors determine consumer preference that, most of the consumers were giving prime importance to price while shopping their product online. Even though price is undoubtedly an

important factor in many decisions to shop online, but product and other characteristics have also been found to be important factors in online shopping.

### 2.4.4 Online Marketing Payment Issues

The information provided by Wikipedia about e- shopping, shows that in India cash on delivery is a preferred payment method in online shopping. India has a vibrant cash economy as a result of which 80% of Indian e-commerce tends to be Cash on Delivery (COD). Similarly direct imports constitute a large component of online sales. Demand for international consumer products (including long-tail items) is growing much faster than in-country supply from authorized distributors and e-commerce offerings.

Atmadip Ray & Writankar Mukherjee ( 2015), in their study about *Zero-interest EMIs on portals like Flipkart, Amazon, Snapdeal & others may make NBFCs heroes,* states that Non-bank finance companies are working on interest-free installment plans for online purchasers. The EMI option is likely to be offered in the next six months. This option is now available only for buying from large brick-and mortar stores. Bajaj finance and other NBFCs are in talks with all the leading ecommerce sites to start zero percent EMI schemes and currently finalizing the mechanism since it would involve a change in technology in the back-end and the way the transaction will be completed. To start with, EMI facility will be offered on the purchase of items such as white goods, televisions and mobile devices.

Mark Brohan (2014), in his article about e-commerce intelligence, explains that the various challenges faced by the E-tailers in India are secure payments processing, order fulfillment and package delivery to 60% of the Indian population that lives outside of major cities such as Mumbai and New Delhi is problematic as the online sellers may not have access to these places and India has a very low percentage of consumers with a credit or debit card for making their payment in online marketing compared with other developed countries such as the U.S. and Europe.

## 2.5 Characteristics of Online Consumers

Based on the survey conducted by Assocham, Mr. DS Rawat,(2013) the secretary general presented his view about the e- commerce developments in his article in The Economic times. The increasing Internet penetration, availability of more payment options, aggressive online discounts, rising fuel prices and availability of abundant online options boosted the e-commerce industry in in the recent years. While mentioning about the trend in online shopping, he explained that the products that are sold most through the e-tailing channels are technological and fashion category, including mobile phones, iPods, accessories, MP3 players, digital cameras. India's e-commerce market, which stood at $2.5 billion in 2009, reached $8.5 billion in 2012 and rose 88 per cent to touch $16 billion in 2013. The survey estimates the country's e-commerce market to reach $56 billion by 2023, driven by rising online retail. The age-wise analysis of this study revealed that 35 per cent of online shoppers are aged between 18 years and 25 years, 55 per cent between 26 years and 35 years, 8 per cent in the age group of 36-45 years, while only 2 per cent are in the age group of 45-60 years. Besides, 65 per cent of online shoppers are male while 35 per cent are female.

Laudon and Traver, (2009) in their book *E-Commerce Business, Technology and Society,* narrates that in terms of online communication, when customers see banner ads or online promotion, these advertisements may attract customers' attention and stimulate their interest in particular products. Before they decide to purchase, they will need additional information to help them out. If they do not have enough information, they will search through online channels, e.g., online catalogs, websites, or search engines.

Broekhuizen and Jager (2004), in their research report *A Conceptual Model of Channel Choice: Measuring Online and Offline Shopping Value Perceptions*, pointed out the characteristics of present online shoppers appear to;

- Be younger, wealthier and better educated than their offline counterparts

- Have higher computer literacy; spend more time on their computer and on the internet
- Find online shopping easier and more entertaining, and
- Are less fearful of financial loss from online shopping.

Donthu and Garcia (1999), during their research for consumer characteristics related to online marketing, found that consumers who shop online seek convenience and variety. Moreover, they are more innovative and spontaneous than conventional buyers. Also they are less aware of the brand of the product and tend to have a more positive attitude towards advertising and direct marketing.

Liang and Huang (1998), as a result of their study about the consumer acceptance of products in electronic products, states that online shopping is one of the most popularized activities that take place on the internet. Yet the reasons why consumers buy through online and what drives them to do so are still vague. But it can be assumed that those customers' looks for variety of products at different range and brands are more attracted to the online shops.

## 2.6 Key Drivers in Indian Online Marketing

1. Increasing broadband Internet
2. Drastic 4G penetration to Indian communication network.
3. Standards of living and a burgeoning, upwardly mobile middle class with high disposable incomes
4. Availability of much wider product range (including long tail and direct Imports) compared to what is available at brick and mortar retailers
5. Busy lifestyles, urban traffic congestion and lack of time for offline shopping
6. Lower prices compared to brick and mortar retail driven by disintermediation and reduced inventory and real estate costs
7. Increased usage of online classified sites, with more consumer buying and selling second-hand goods

8. Evolution of the online marketplace model with sites like eBay,Flipkart, Snapdeal, Infibeam, and Tradus.

## 2.7 Review of Behavioral Intention Theories

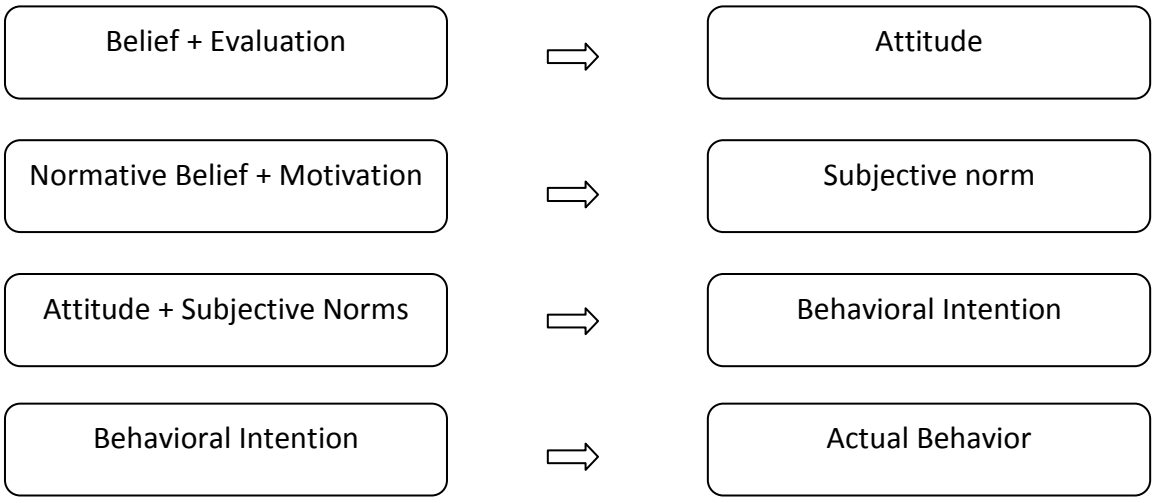
The most frequently used theories for studying behavioral intention in technological products were the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the Theory of Reasoned Action (TRA). Most of these theories have been developed from the Theory of Reasoned Action originally proposed by Fishbein and Ajzen (1975).

### 2.7.1 Theory of Reasoned Action (TRA)

*"Behavior is preceded by intentions and the intentions are determined by the individual's attitude toward the behavior and the individual's subjective norms"* **(Fishbein & Ajzen 1975)**

**Diagram 2.2**

**Theory of Reasoned Action**




**Strengths of the Theory**

- Strong predictive power of consumer's behavioral intention that have been demonstrated with a wide variety of consumer products.

- TRA is a well-researched theory designed to explain virtually any human behaviors.

**Weaknesses of the Theory**

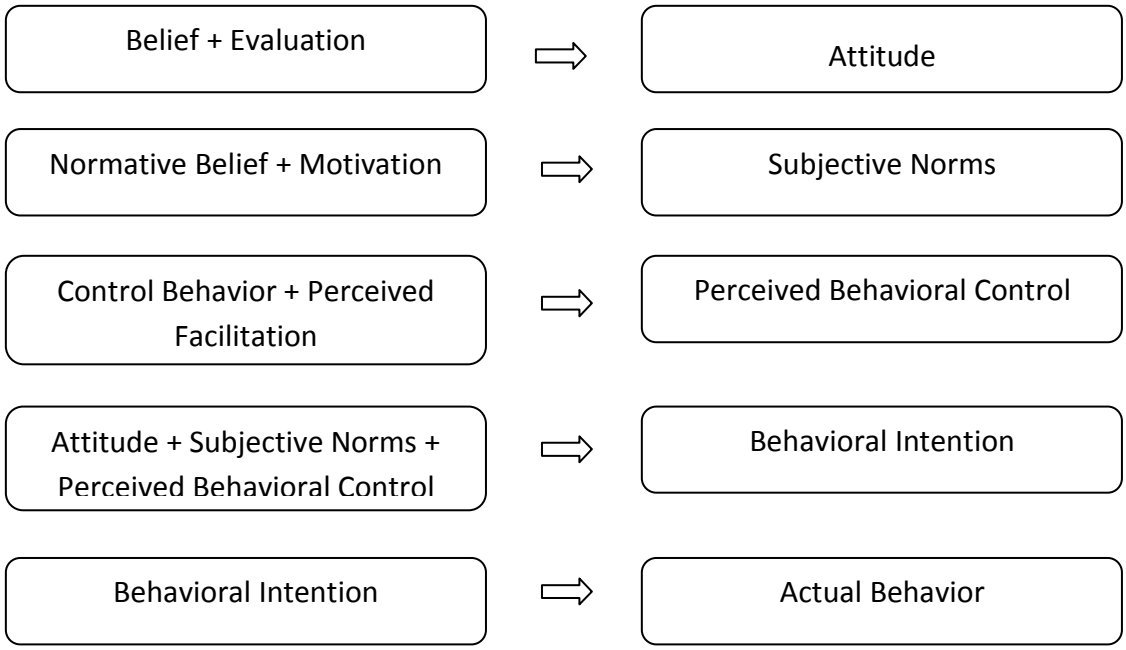
- Consumers do not have complete control over their behavior in some conditions.
- Direct effect of subjective norms on behavioral intention is difficult to isolate from the indirect effects of attitudes.
- Did not include personality characteristics, demographic, or social roles that influence behaviors.

## 2.7.2 Theory of Planned Behaviour (TPB)

*"Perceived behavioral control regarding the availability of resources and opportunities for performing the behavior influences both intentions and behavior. Behavior is also affected by habit and arousal."* **(Ajzen 1985)**

**Diagram 2.3**

**Theory of Planned Behavior**



**Strengths of the Theory**

- A broader model compared to TRA
- The theory has received substantial empirical support for predicting behavior in information systems and other domains.

**Weaknesses of the Theory**

- Constructs are difficult to define and measure in the study.
- The model suffers from multi co-linearity among the independent variables

## 2.7.3 Technology Acceptance Model (TAM)

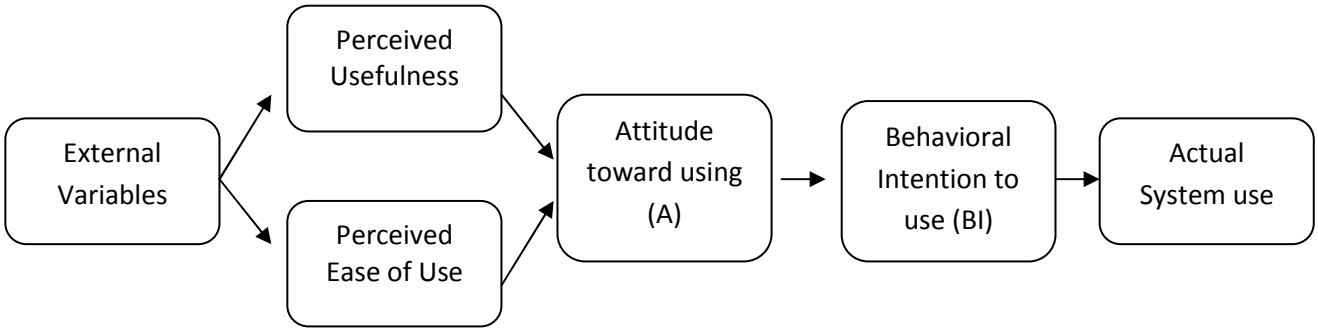
The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably:

- **Perceived usefulness (PU)** - This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".
- **Perceived ease-of-use (PEU)** - Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989).

*"Individual's behavioral intention to use a system is determined by perceived usefulness and perceived ease of use. The effects of external variables on intention to use are mediated by perceived usefulness and perceived ease of use"* **(Davis 1989)**

**Diagram 2.4**

**Technology Acceptance Model**

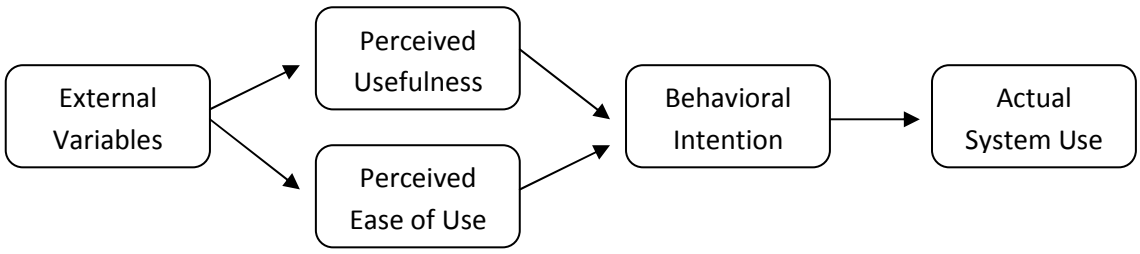



**(TAM Version 1. Davis 1989)**

Davis, Bagozi and Warshaw (1989), used the above model to conduct a longitudinal study with 107 users to measure their intention to use a system after a one hour introduction to this system, and again 14 weeks later. In both cases, their results indicated a strong co-relation between reported intention and self reported system usage with perceived usefulness responsible for the latest influence on people's intention. However, perceived ease of use was found to have a small but significant effect on behavioral intention which later subsided over time. But the main finding was that both perceived usefulness and perceived ease of use were found to have a direct influence on behavioral intention, thus eliminating the need for the attitude construct from the model.

**Diagram 2.5**

**Final Version of TAM (Venkatesh and Davis 1996)**



**Strengths of the Theory**

- Numerous empirical studies have found that TAM consistently explains a substantial proportion of the variance in usage intentions and behaviors with a variety of information technologies.
- Direct effect of subjective norms on behavioral intention has yielded mixed results in the past. This theory used perceived usefulness and perceived ease of use to replace subjective norm.
- TAM is a robust, powerful, and parsimonious model for predicting user acceptance of information technologies.

**Weakness of the Theory**

- Ignores some important theoretical constructs.

## 2.8. Research Constructs

Based on the literature review, and informal discussions with the internet users who either bought any product or searched for information in online shopping sites, five more constructs namely **Company Attributes (CA)**, **Product Attribute (PA), Perceived Risk (PR), Customer Experience (CE), and Personality of the Consumer (PC)** have also been added to the Technology Acceptance Model construct **Perceived Usefulness (PU) and Perceived Ease Of Use (EOU),** to better explain the phenomenon of online shopping among e-shopping consumers in Kerala. This seven constructs which may influence online purchase intention can be classified in to three categories of attributes.

1. **Product attributes** composed of Company Attribute (CA) and Product Attribute (PA)
2. **User attributes** composed of Perceived Risk (PR), Customer Experience (CE) and Personality of the Customer(PC)
3. **Internet attributes:** This attribute is composed of Perceived Ease of Use (PEU) and Perceived Usefulness (PU)

## I. Company Attributes (CA)

From the literature review, it is found that the effect of attitude on purchase intention was strongly associated with the level of information about company which provides goods and services through online. Consumers generally reach a purchase decision quicker when they have adequate and useful company information especially among new buyers. Therefore, this factor is included into the model.

**Variables**

1. After sales service
2. Trusted company
3. Popularity of the company
4. Permanent physical address
5. Working for a long time
6. Delivery

**Research question 1:** How the Company attributes (CA) would directly affect the purchase of Technological products online.

## II. Product Attributes (PA)

The product is one of the most important factors in a companies marketing mix. Customers are very much particular about the quality of the product they wish to purchase. The peculiar features of the product and its utilities have significant importance in marketing of the company both in online and offline. There fore this construct is also included in this model.

**Variables**

1. Trusted product
2. Value for money
3. Product popularity
4. Product available only in online
5. Need to touch or test products

6. Reference group
7. Product features
8. Product endorsement
9. Brand name

**Research question 2:** How the Product attributes (PA) would directly affect the purchase of Technological products online.

### III. Customer Experience (CE)

The future decision is always associated with the past experiences. Now a day the internet usage is almost familiar to most of the people, but online marketing is a new terminology for the majority of the people of Kerala. The customer experience (CE) of computer and Internet technology should play a major role in predicting whether they will purchase online or not. Consumers gain more confidence when their Internet experiences and skills increases and subsequently spend more time and money in online shops. Therefore, this factor is also included into the model.

**Variables**

1. Belief of users
2. Past experience of users
3. Like shopping
4. Easy product finding
5. Product comparison
6. Demonstration of usage
7. Chance for bargaining
8. Purchase bill
9. Time to judge the product
10. Feeling when not making any purchase
11. No sales person to bother with

**Research question 3:** How the Customer Experience (CE) would directly affect the purchase of Technological products online.

### IV. Perceived Risk (PR)

Consumers generally perceive a risk in almost all store purchase decisions. Consumers normally associate a higher level of risk with non-store purchase rather than store purchase. Unlike offline consumers, online consumers are more concerned with risks involved in buying on the Web such as using credit/debit card, fraud and not receiving the right products after ordering etc. Therefore, this factor is also included into the model.

**Variables**

1. Fear of losing credit cards
2. Fear of being cheated
3. Safety
4. No warranty
5. Quality of the product not as expected
6. Return policy
7. Supply of defective products
8. Payment system
9. Delay in delivery delivery

**Research question 4:** How the Perceived Risk (PR) would directly affect the purchase of Technological products online.

### V. Personality of the Consumer (PC)

The reviews of literature and interaction with the online consumers have given an insight to the researcher that the personality of the customer plays a vital role in online shopping. The following variables have been developed to measure the impact of personality of the customer and its influence on online purchase of technological products.

**Variables**

1. Trendy and fashionable
2. Skillful in internet surfing
3. Good in English language
4. Like to use latest technologies

**Research question 5:** How the Personality of the Customer (PC) would directly affect the purchase of Technological products online.

**VI. Perceived Ease of Use (PEU).**

This construct is taken from the original Technology Acceptance Model. Perceived ease of use is defined as the degree to which a person believes that using a particular system would be free of effort (Davis 1989). It has a strong influence on behavioral intention to adopt information technology. If a technology is perceived as too difficult to use, a person will choose an alternative option that is easier for him or her to perform. The internet usage and the online shops are comparatively new medium in India with a low penetration rate. Hence perceived ease of use should have a direct impact on the purchase intention among the e shopping consumers in Kerala.

**Variables**

1. Easy to download
2. Short download time
3. Not too lengthy text
4. Not complicated
5. Design of web sites
6. Provide picture and details
7. Delivery time
8. Not annoying
9. Quick process

**Research question 6:** How the Perceived ease of use (PEU) would directly affect the purchase of Technological products online.

## VII. Perceived Usefulness (PU)

This construct is also taken from the original Technology Acceptance Model. This factor is well documented and consistently proven in many empirical studies to have a high impact on the behavioral intention to adopt technological products (Davis, Bagozzi & Warshaw1989). Perceived usefulness is defined as the degree to which a person believes that using a particular system would accelerate his or her personal growth and would enhance his or her job performance (Davis 1989). Perceived usefulness is the most important factor influencing behavioral intention especially when making an adoption decision. Perceived usefulness is generally associated with convenience and ease of use. This study was aimed at examining the impact of perceived usefulness on the purchase of technological products online.

### Variables

1. Fun and entertaining
2. Informative
3. Convenient
4. Save time and money
5. Fast transactions
6. Variety of information
7. Cheaper price
8. Varied choice of companies
9. Domestic and international shopping
10. Price advantage

**Research question 7:** How the Perceived usefulness (PU) would directly affect the purchase of Technological products online.

## 2.9. Conclusion

This chapter presents an understanding about the background of online shopping by reviewing the existing literature. A stage wise review is made based on various topics which lead to the better understanding of the concept of online shopping. The literatures related to marketing, internet and its penetration world wide including special focus to India, internet marketing and its scope and challenges, online and offline decision making of consumers, online payment issues etc are reviewed in detail with available literature. Gaps in the literature are also identified during the review of existing literature in the area of online marketing. Majority of the previous studies are based on adoption of technologies rather than online shopping. It is found that there is no study that concentrates on what factors actually encourage or discourage the consumers of Kerala to purchase online.

The researcher reviewed various model of behavioral theories like Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) and found that Technology Acceptance Model (TAM) is best suitable to develop a research model for this study. The researcher analyzed the strengths and weaknesses of this theory in detail and found that it has high reliability, theoretical foundation and wide acceptance. The researcher added five additional constructs based on the information from the literature on top of the two original constructs namely perceived ease of use (PEU) and perceived usefulness (PU) in order to construct a unique model for this study. The five additional constructs are company attribute (CA), product attribute (PA), perceived risk (PR), customer experience (CE) and personality of the consumer (PC).

**Reference**


Avnish Bajaj, (2012), co-founder and director of Matrix Partners India, based on market research conducted by Forrester Research Inc. and Matrix Partners India. 2012.

Adesara, H. (2005) "*New consumer mantra: Have money, will indulge in lifestyle spends*" http//:www.Indiantelevision.com.

A Gordon, K Bhowan, (2005), *Factors that Influence Online Shopping Behavior*. Alteration 12.1a (2005) 145-169, ISSN 1023- 1757.

Atmadip Ray & Writankar Mukherjee ( 2015), "Zero-interest EMIs on portals like Flipkart, Amazon, Snapdeal & others may make NBFCs heroes", *The Economic Times, Finance, ET Bureau*, Mar 26, 2015, 04.00AM IST.

Ajzen, I. 1985, From Intentions to Actions: A Theory of Planned Behavior, in Action Control: From Cognition to Behavior, J. Kuhl and J. Beckmann, eds, NY: *Springer Verlag.*

Abramson and Hollingshead, (1999), *Marketing on the Internet - Providing Customer Satisfaction. Marketing mix*. August 1999. Retrieved on Nov. 10 2015.

Bourlakis, M. , Papagiannidis, S. and Fox, H. (2008), E-consumer behaviour: Past, present and future trajectories of an evolving retail revolution, *International Journal of E-Business Research*, vol. 4, no. 3, pp.64-67, 69, 71-76.

Broekhuizen, T. and Jager, W. (2004), "*A Conceptual Model of Channel Choice: Measuring Online and Offline Shopping Value Perceptions*". University of Groningen, Research Institute SOM (Systems, Organisations and Management) in its series Research Report with number 04F04, 2004.

Bakos, Y. Lucas Jr, H. OH. W. Simon, G. Viswanathan, S. Weber, B. (2005), The Impact of E-Commerce on Competition in the Retail Brokerage Industry, *Information Systems Research*, 16 (4), pp. 352 - 372 December 2005.

Brynjolfsson, E., Smith, M. and Montgomery, A., (2004), The Great Equalizer? Consumer Choice Behavior at Internet Shop bots, *MIT Sloan Working Paper* No. 4208-01, 2004.

Comegys, C., Hannula, M. and Váisánen, J. (2009), "Effects of consumer trust and risk on online purchase decision-making: A comparison of Finnish and United States students", *International Journal of Management*, vol. 26, no. 2, pp. 295-308.

Cheung, C. M. K., Zhu, L., Kwong T., Chan, G. W. W. & Limayem, M. (2003), *Online consumer behavior: a review and agenda for future research*, 16th Bled ECommerce Conference, Bled Slovenia, 194-218, June 2003.

Cataline Zorzini, (2015), The State E-Commerce in 2015, ecommerce platforms, ecommerce news, June 2, 2015.

Chua, C.W. and Lu, H. P., (2006), "Factors influencing online music purchase intention in Taiwan: an empirical study based on the value-intention framework", *Internet Research*, Vol. 17. No. 2, 2006. pp. 139-155.

"Convenience Equally Important As Discounts for Online Shoppers in India". CouponRani. Retrieved 11 November 2013.

Codilar, (2017), http://www.codilar.com

D. K. Gangeshwer, (2013), E-Commerce or Internet Marketing: A Business Review from Indian Context, *International Journal of u- and e-Service, Science and Technology* Vol.6, No.6 pp.187-194.

D S Rawat, (2013), Assocham Secretary General, according to a survey by industry body Assocham. 2013. *The Economic Times- Internet*, **PTI** Dec 30, 2013.

Donthu, N. and Garcia, A., (1999), The Internet Shopper, *Journal of Advertising Research*, 39: 52–58.

Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. 1989, User Acceptance of Computer Technology: A Comparison of Two Theoretical Models, *Management Science*, vol. 35, no. 8, pp. 982-1003.

Davis, F.D. 1989, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, vol. 13, pp. 319-339.

Davis, F.D and Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *Int. J. Human- Computer Studies,* 45(1). 19-45.

Economic literature review, (2007), *Internet shopping* – Annexe F, June 2007. A report for the Office of Fair Trading by Europe Economics, p 67.

E-commerce in India. From Wikipedia, the free encyclopedia. 2015.

E-commerce in India. From Wikipedia, the free encyclopedia. Retrieved on 4 Aug 2013.

E-commerce in India. From Wikipedia, the free encyclopedia. 2014.

Failte Ireland, (2012), National Tourism Development Authority, Overview of Internet Marketing, 2 April 2012, Version 1.0.

Fishbein, M. & Ajzen, I. 1975, *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Reading, MA. Addison-Wesley.

Gadget 360, an NDTV Venture, Internet news, Indo Asian news service, 11 August 2015.

Google Trends (2012), Online research conducted by TNS Australia with a sample size of 800 respondents on behalf of Google India in November 2012.

G. T. Waghmare, (2012), "E-commerce; A Business Review and Future Prospects in Indian Business", Internet Marketing in India: *Indian Streams Research Journal*, vol. 2, no. IV, pp. 1-4.

Gregory Karp, (2009), personal finance writer for The Morning Call, Allentown, Pa. Chickago Tribune, October 25, 2009.

Hager, D., C. kibbler & L. Zack, (1999), The Basics of User- Friendly Web Design. *Journal for Quality and Participation*. May/June 1999. Vol.22, Issue 3. p 58.

http://www.techtree.com/India/News/Internet_Shopping_in_India/551-5701-617.html.

***Internet Live Stats*** (elaboration of data by *International Telecommunication Union (ITU)* and *United Nations Population Division)*

Irfan Khan, (2015). Entrepreneur India, What can a blog does to your business, Nov 2, 2015

"Internet World Stats" (2013). Internet World Stats. Retrieved 2013-07-04.

"India broadband penetration growth". Internetworldstats.com. Retrieved 2013-07-04.

J. Suresh Reddy, (2003), Impact of E-commerce on marketing, *Indian Journal of Marketing*, May, vol. xxxiii, No.5.

Kotler, P. (2003), *Marketing Management*. Eleventh Edition. New Jersey. Prentice Hall.

Koo, D. M., Kim, J. J. and Lee, S. H., (2008), "Personal values as underlying motives of shopping online", Asia *Pacific Journal of Marketing and Logistics*, vol. 20, no. 2, pp. 156-173.

Koyuncu, C. and Bhattacharya, G. (2004), The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. *Journal of Socio-Economics*, Volume 33, Issue 2, pp. 241-251, April 2004.

Keen, C., Wetzelsb, M., De Ruyterc, K. and Feinberg, R., E-tailers versus retailers: Which factors determine consumer preferences?, *Journal of Business Research* 57 pp. 685– 695, 2004.

Kunkel, J. (2003), Reducing Risk, Maximising Return in Online Retailing. Chain Store Age. September 2003. Issue 9 p3.

Keen, C., Wetzelsb M., de Ruyterc, K. and Feinberg R., (2004), E-tailers versus retailers: Which factors determine consumer preferences?. *Journal of Business Research* 57 pp. 685– 695, 2004.

Lee, G. G. and Lin, H. F. (2005), Customer Perceptions of E-Service Quality in Online Shopping. *International journal of Retail and Distribution Management*. Vol.33, No. 2, 2005. pp 161-176.

Lian, J. and Lin, T., (2008), Effects of consumer characteristics on their acceptance of online shopping: Comparisons among different product types, *Computers in Human Behavior*, Vol.24: pp48 – 65.

Liang, T. P. and Lai. H. J., (2002), "Effect of store design on consumer purchases: An empirical study of on-line bookstores", *Information & Management*, vol. 39, no. 6, pp.431-444.

Levin, A., Levin, I. and Weller,J. (2005), A Multi-attribute Analysis of Preferences for Online and Offline Shopping: Differences across products,consumers and shopping stages, *Journal of Electronic Commerce Research*, Vol. 6, No.4, 2005.

Laudon, K.C. and Traver, C.G., (2009), *E-Commerce Business. Technology. Society*, 5th edition, Prentice Hall, New Jersey.

Liang, T. P., Huang, J. S., 1998, An empirical study on consumer acceptance on products in electronic markets: A transaction cost model, *Decision Support Systems*, 24: 29– 43.

M. S. Khan and S. S. Mahpatra, (2009), Service quality evaluation in internet banking: an empirical study in India, *International Journal for Indian Culture and Business Management*, vol. 2, no. 1, (2009), pp. 30-46.

Mark Brohan, (2013), Research director, internet RETAILER – Portal to E-Commerce Intelligence, January 11, 2013.

Mathrubumi Malayalam daily, 30 Dec 2015, based on the 'Generation Zed' survey conducted by Tata Consultancy Service.

Mark Brohan, (2014), Research director, *internet RETAILER* – Portal to E-Commerce Intelligence, December 2014.

"Models of e-commerce in India". Desinerd.com. 2012-08-29. Retrieved 2013-07-04.

Pallab, P. (1996), Marketing on the Internet, *Journal of Consumer Marketing*, vol.13, issue 4, pp. 27-39.

Prasad, C. and Aryasri, A., (2009), “Determinants of shopper behavior in e-tailing: An empirical analysis”, Paradigm, vol. 13, no. 1, pp.73-83.

Parikh, D. (2006), “Profiling Internet Shoppers: A Study of Expected Adoption of Online Shopping in India”, *IIMB Management Review*, Vol 18, No 3. 2006.

PTI Aug 29, 2010, 02.22pm IST (2010-08-29). "E-commerce growth with 3G". *Economictimes. indiatimes.com*. Retrieved 2013-07-04.

R. R. Ruckman, (2012), http://www.imgrind.com/10-advantages-of-internet-marketing/10 Advantages Of Internet Marketing, (2012) January 19.

Richa Maheshwari & Sobia Khan, (2015), *Factory outlets are finding the going tough with shoppers hooked to online shopping due to higher discounts*, The Economic Times, Retail, ET Bureau Sep 25, 2015, 04.00AM IST.

Rajan Anandan, (2012), Citing data from Google Trends based on the online research conducted by market researcher TNS. 2012.

Smart Beautiful Digital Marketing - 10 Definitions of Marketing, on the web page of CNN iReport By D Mc Greggr, Posted April 28, 2015, retrieved on January 14, 2016.

Strauss, J. & Raymond, F. (1999), *Marketing on the Internet*, Prentice-Hall, Upper Saddle River, New Jersey.

Swati Prasad**, (**2013), Inside India | January 29, 2013, Article- Online shopping catching fancy of Indian consumers

Smith, M.D., J. Baileyand E. Brynjolfsson. *Understanding Digital Markets: Reviews and Assessments.* In Understanding the Digital Economy, MIT Press, 1999.

Telecom Regulatory Authority of India (2017)

Times of India, (2013), http://timesofindia.indiatimes.com/tech/tech-news/internet/50-sales-of-e-commerce-sites-like-Indiatimes-Shopping-Myntra-Jabong-from-tier-II-III-cities/articleshow/18460504.cms, Feb 12, 2013.

Techtree (2005), “Internet Shopping in India”

U. Karoor, (2012), “E-commerce in India: Early Bards expensive worms”, Consumer and shopper insights, 2012.

Vishal Midha, (2012), Article- Impact of consumer empowerment on online trust: An examination across genders, *Elsevier International Journal*. pp198-205, 17-May- 2012.

Warrington, T.B., Abgrab, N.J., & Caldwell, H.M. (2000), Building Trust to Develop Competitive Advantage in E-Business Relationships, *Competitiveness Review*, vol. 10, issue 2, pp. 160-168.

Waldo, B.H. (2000), Re deifining the Health Care Landscape with the Internet, *Nursing Economics*, March-April, vol. 18, issue 2, pp.99-100.

Yu, T. And Wu, G. (2007), “Determinants of internet shopping behavior: An application of reasoned behavior theory”, *International Journal of Management*, vol. 24, no. 4, pp. 744-762, 823.

Yulihasri, M. D. Aminul Islam and Ku Amir Ku Duad, (2011), “Factors that Influence Customers’ Buying Intention on Shopping Online”, *International Journal of marketing studies*, Vol.3, No.1, February 2011. Pp 128-139.

# Chapter 3

# Online Shopping Profile in India

- **Introduction**
- **List of Online Shopping Sites in India**
- **Online Shopping Steps**
- **Online Retail Sales in India**
- **Safety in online shopping**
- **Setting Up of an Online Business**
- **Conclusion**

## 3.1. Introduction

This chapter analyses the overview of online shopping business in India based on the objectives set by the researcher. The objectives analyzed and achieved through this chapter is;

- To identify the online shopping procedure and its effect in retail business in India.

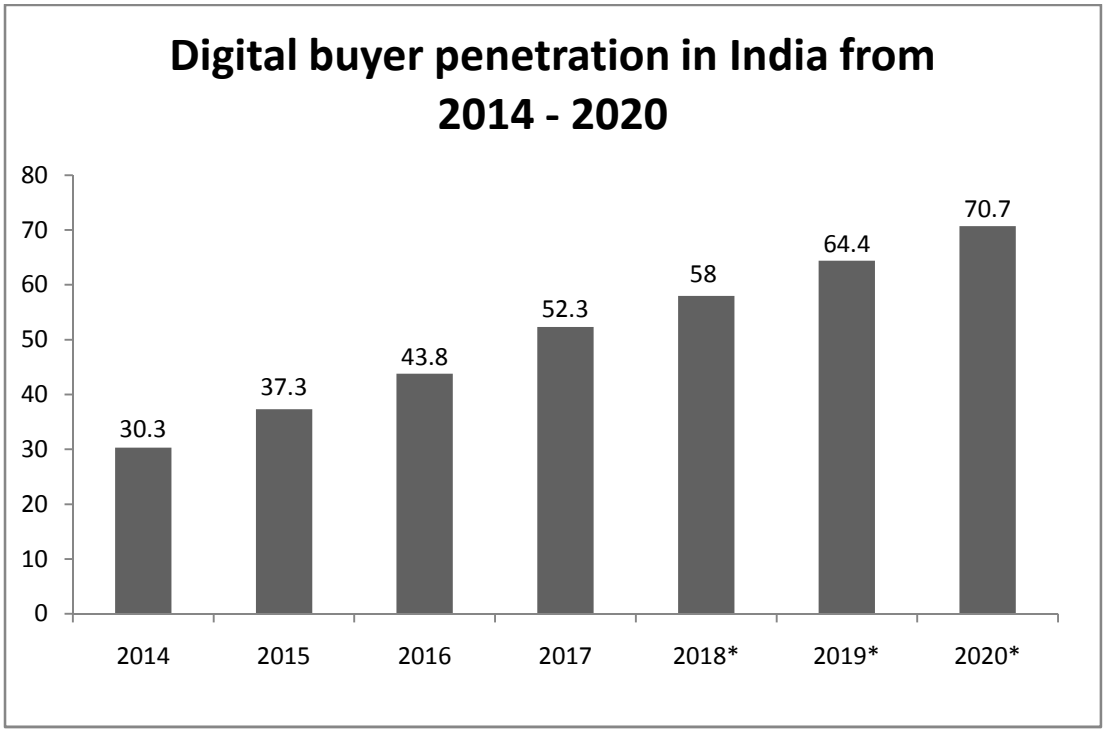
Online shopping is a form of electronic commerce which allows a customer to buy goods and services directly from an online seller over the internet at any time, anywhere by using a web browser. Online shop is alternatively known in various names like e- store, e- shop, web shop, web store, online store and virtual store. In an online store one is able to browse and search for products as he would in a traditional store. There one can find wide range of products in multiple brands. The detailed description and specification will also be published along with the products. Most online sites contain review of the products by people who have already purchased and used it. This will help the buyer to get an idea about the product before making any decision. Here the customers need not move anywhere and face any type of pressure from the seller for making his purchase. But in traditional shopping one has to leave his home to a store and sometimes have to face the pressure of the seller for making his purchase.

The fast development of telecommunication technology and internet in the past few decades is changing many aspects of our lives – how we search for information, how we travel and not at least how we buy products or services. Although classic shop-based retail is still preferred, e-commerce or electronic commerce, namely the buying and selling of products and services exclusively through electronic channels, is gaining ground. The most well-known form of e-commerce or electronic commerce is online shopping, also known as business to consumer e-commerce (B2C), where private customers can order various products which they then receive by courier or postal mail. Another category of e-commerce focuses on transactions between companies, such as manufacturers and wholesalers

or wholesalers and retailers and is called business to business e-commerce (B2B). The third category of e-commerce involves transactions from consumer to consumer (C2C), as in the example of eBay or other similar websites.

The penetration of internet and its popularity among the consumers is the base of online business development in India. The online buyers are basically internet users. The more and more people using the internet, the chance of buying online is also more.

**Diagram 3.1**

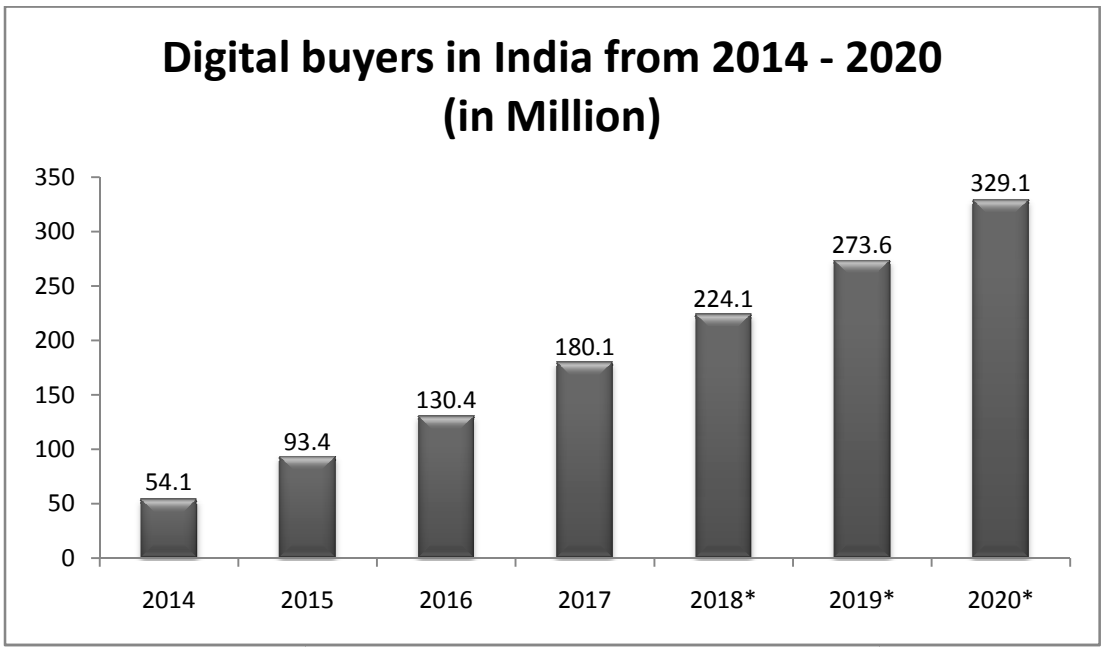



(Source- Statista: Digital buyer penetration in India from 2014-20, (*estimate))

The statistics in the above diagram shows that in 2014 30.3 percent internet users in India had purchased products from online stores. It shows that the percent of transforming the internet users to online buyers are increasing over the years. It can be estimated that by the year 2020, 70.7 percent of internet users in India will become online buyers.

The online buyers in India are increasing over the years. The popularity of internet among the consumers leads them to the chance of becoming online buyers as mentioned in the previous diagram. The diagram 3.2 shows the increase in the number of digital buyers in India from 2014 to 2020.

**Diagram 3.2**




(Source- Statista: Digital buyers in India from 2014-2020, (*estimate))

The above statistics shows that in 2014 the online buyers in India was 54.1 million and it has increased steadily over the years. In 2020 it is estimated to be 329.1 million online buyers in India.

## 3.2. List of Online Shopping Sites in India

Online shopping is slowly and gradually creeping in to Indian market. At present, more and more people prefer online shops for their daily purchase. During the festival seasons and also on some special periods, online portals give more offers to their customers compared to the traditional retail stores. The recent studies and trends show that India has come a long way from being a country of wary online customers to a country of millions of satisfied online shoppers.

There are a large number of online shopping sites available in India. With the increasing trend of online shopping in the country, the number of shopping websites has increased to a large extent within the last few years, even though which one to trust is quite a dilemma. An A to Z list of some of the major online shopping websites which operates all over India is presented in the table below.

**Table 3.1**

**List of some of the online shopping sites in India.**

| Sl. No. | Letter | E store | Sl. No. | E store |
|---|---|---|---|---|
| 1. | A | Ajio.com | 2. | Asos.com |
| 3. | | Abof.com | 4. | **Amazon.in** |
| 5. | | Aliexpress.com | 6. | Americanswan.com |
| 7. | | AskmeBazaar.com | 8. | Adirawoman.com |
| 9. | B | Brandmile.com | 10. | beautylounge.com |
| 11. | | bestylish.com | 12. | brandsvillage.com |
| 13. | | Biotique.com | 14. | Biba.in |
| 15. | | blab.co.in | 16. | Bradsndeals.com |
| 17. | | **Bigbasket.com** | | |
| 18. | C | Cosmetix.in | 19. | Caratlane.com |
| 20. | | cilory.com | 21. | Chrono24.in |
| 22. | | Coolbuy.in | 23. | Craftsvilla.com |
| 24. | | Couponation.in | 25. | Carkhana.com |
| 26. | D | Dealsandyou.com | 27. | donebynone.com |
| 28. | | Digaaz.com | 29. | Darveys.com |
| 30. | | doozyshopping.com | | |
| 31. | E | **Ebay.com** | 32. | Evya.in |
| 33. | | Ethoswatches.com | 34. | Ethnicdukaan.com |
| 35. | | Elitify.com | | |
| 36. | F | **Firstcry.com** | 37. | Forever21.com |
| 38. | | Fashionandyou.com | 39. | Fernsnpetals.com |
| 40. | | **Flipkart.com** | 41. | Forevernew.co.in |
| 42. | | **futurebazaar.com** | 43. | Fashionara.com |
| 44. | | Fashnvia.com | 45. | Fabfurnish.com |

| Sl. No. | Letter | E store | Sl. No. | E store |
|---|---|---|---|---|
| 46. | | Fashionatclick.com | 47. | Faballey.com |
| 48. | | Fetise.com | 49. | Fressup.com |
| 50. | G | goodlife.com | 51. | gkboptical.com |
| 52. | | Globusstores.com | 53. | Getitbazaar.com |
| 54. | H | **homeshop18.com** | 55. | healthkart.com |
| 56. | | Handspick.com | 57. | Hot9offers.com |
| 58. | | Helioswatchstore.com | | |
| 59. | I | **infibeam.com** | 60. | Indiarush.com |
| 61. | | indiavarta.com | 62. | Indianroots.com |
| 63. | | Iknowstudio.com | 64. | **Indiatimes shopping.com** |
| 65. | | in.loccitane.com | | |
| 66. | J | Jewelskart.com | 67. | **Jabong.com** |
| 68. | | Juvalia.in | | |
| 69. | K | Koovs.com | 70. | Kiehlsindia.com |
| 71. | L | Landmarkshop.in | 72. | Limeroad.com |
| 73. | | letsbuy.com | 74. | **Localbanya.com** |
| 75. | | lenskart.com | | |
| 76. | M | **myntra.com** | 77. | Moodsofcloe.com |
| 78. | | mydala.com | 79. | Meenabazaar.com |
| 80. | | Mirraw.com | 81. | Meenabazaar.in |
| 82. | N | 99labels.com | 83. | **naaptol.com** |
| 84. | | Nupinch.com | 85. | Nykaa.com |
| 86. | | Nordstrom.com | 87. | nnnow.com |
| 88. | O | oyegirl.com | 89. | Only.in |
| 90. | | **Olx.in** | 91. | Oasap.com |
| 92. | P | **paytmmall.com** | 93. | Pipabella.com |
| 94. | | poshfusion.com | 95. | Paperlillie.com |
| 96. | | purplle.com | 97. | Perniaspopupshop.com |
| 98. | | Peppercloset.com | 99. | Prettysecrets.com |
| 100. | | **Pepperfry.com** | | |

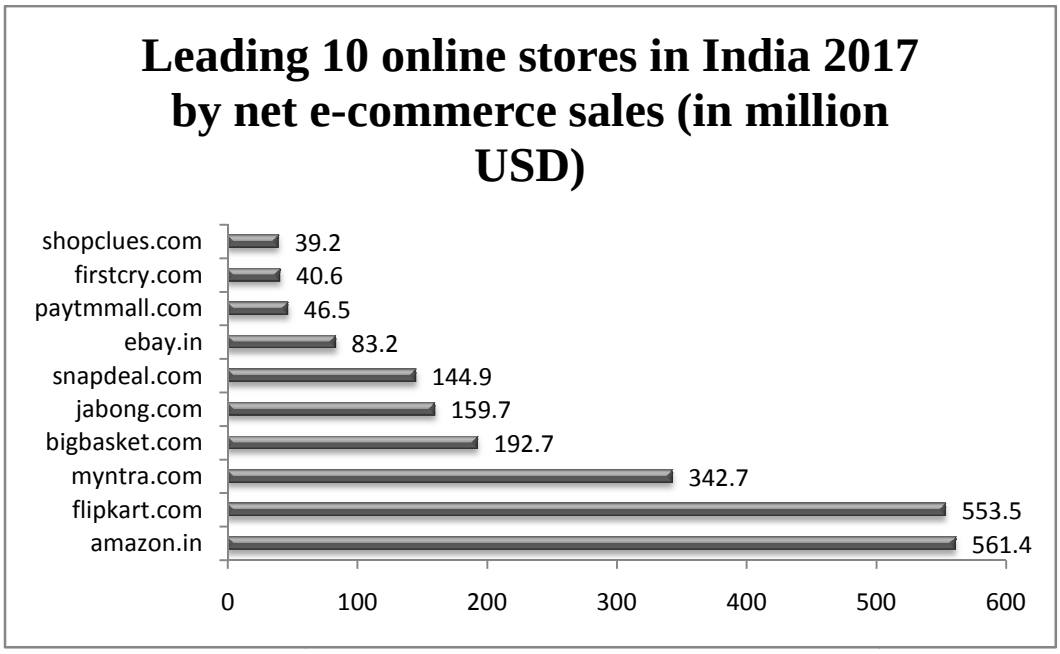
| Sl. No. | Letter | E store | Sl. No. | E store |
|---|---|---|---|---|
| 101. | Q | qvendo.com | | **Quikr.com** |
| 102. | R | romwe.com | 103. | Rooja.com |
| 104. | | Rangrage.in | | |
| 105. | S | **shoppersstop.com** | 106. | snapittoday.com |
| 107. | | Shopalike.in | 108. | stylecraze.com |
| 109. | | shopping.indiatimes.com | 110. | **Shopclues.com** |
| 111. | | **shopping.rediff.com** | 112. | styleme.co.in |
| 113. | | **snapdeal.com** | 114. | Shinedeals.com |
| 115. | | shopatmajorbrands.com | 116. | Shopnineteen.com |
| 117. | | shop.mango.com/IN | 118. | Stalkbuylove.com |
| 119. | | Slassy.com | 120. | Stevemadden.in |
| 121. | | Suhaniepittie.com | 122. | Stylefiesta.com |
| 123. | | Sbuys.com | 124. | Stylista.com |
| 125. | T | Theprivatesales.com | 126. | Thecollective.in |
| 127. | | Tradus.in | 128. | Thebodyshop.in |
| 129. | | Toteteca.com | 130. | Trivenisarees.com |
| 131. | | Trendin.com | 132. | Thequirkbox.com |
| 133. | U | urbantouch.com | 134. | Utsavfashion.in |
| 135. | V | violetbag.com | 136. | Varighty.com |
| 137. | | Voguemagnet.com | 138. | Voylla.com |
| 139. | | Vivaahsurat.com | 140. | veromoda.in |
| 141. | W | wholesale-dress.net | 142. | Wforwoman.com |
| 143. | | watchkart.com | | |
| 144. | Y | yebhi.com | 145. | Youshine.in |
| 146. | | **yepme.com** | | |
| 147. | Z | zoomin.com | 148. | Zoutons.com |
| 149. | | zivame.com | 150. | zovi.com |
| 151. | | Zomato.com | | |

***(Developed for this research)***

The major online shopping sites functioning in India are marked as bold in the above list. These companies enjoy major share in the online business in India. Inspite of these online shopping companies, majority of the reputed retail stores and malls have started online shopping operation in their respective market in addition to their normal way of doing business.

Even though there are a number of online stores functioning in India, major share of the online business is carried out by a few of them. The diagram 3.3 below shows the major online shopping sites based on their e commerce sales during the year 2017. The statistics in diagram 3.3 presents a ranking of the leading online stores in India based on their sales volume in 2017. In the year 2017, the online store amazon.in generated 561.4 million U.S. dollars via e-commerce sales of physical goods in India ranked at the top of the list. Flipkart.com gives a tight competition for amazon.in with 553.5 million USD during the same period. A recent initiative of 'Mahindra', firstcry.com also gained their place in the leading 10 online sellers last year.

**Diagram 3.3**




(Source- Statista: e-commerce sale in India 2017)

## 3.3. Online Shopping Steps

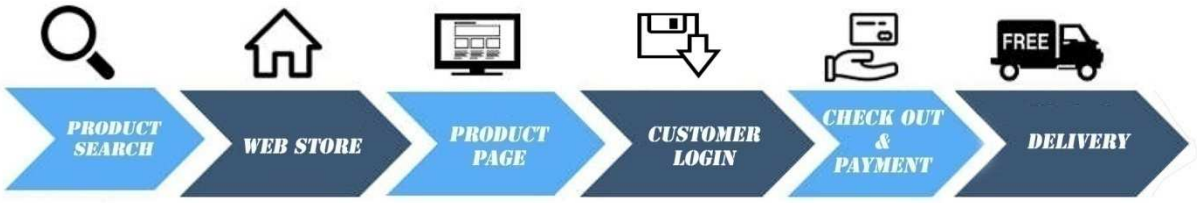
For a customer, it is essential to have basic computer literacy to enter in to the world of online shopping. Basically one needs to have a computer with an internet connection to make an online purchase. The online shopping steps can be simply explained with the help of an online store. More or less, every online store follows almost similar procedure to complete an online purchase. For an easier understanding of the procedure of e shopping, here the researcher takes one of the online stores ***Flipkart*** as a model to explain the online shopping steps. The steps are explained with the help of screenshots of each window appeared during the online shopping.

**Flipkart.com** is one among the leading online store functioning in India through which consumers can buy various categories of items including Electronics, Appliances, Fashion and Apparels, Home and furniture, Books and stationary, Movies and games, Fitness and personal care and many more. Flipkart provides the customers attractive price offers, various payment options, EMI options including no cost EMI, effective replacement policy and prompt delivery. Recently 'Wallmart' the leading MNC in the retail business had purchased flipkart.com and it becomes more powerful in online business in India.

A customer will have to go through the following stages to complete an online purchase. The diagram shown below depicts the different stages of online shopping from product search to delivery of the product.

**Diagram 3.4**

**Stages of Online Shopping**



## Product Search

A consumer who is in need of any particular product online, have to search for the product in Google by typing it on the search bar. Google will provide him all links of various online stores from where he can collect the information and to shop the product. Consumer can click the link of a web store which offers the product he wants, to enter in to their online store. While clicking the link they will get in to the official web site of the online store Flipkart.

## E Commerce Website

The consumer can also get in to the desired web store directly by typing the name of the web store in the search bar of Google or they can use the mobile app of the web store by downloading it from the android play store. Here they can look for the item either by clicking the appropriate categories shown at the top of the window or type the name of the item in the search bar which they want to buys. The various categories shown in Flipkart home page are Electronics, Appliances, Men, Women, Baby & Kids, Home & Furniture and Books & More. In each product category, there will be a number of subcategories are also there for the consumers to choose. It can be better understood through the screenshot shown below.

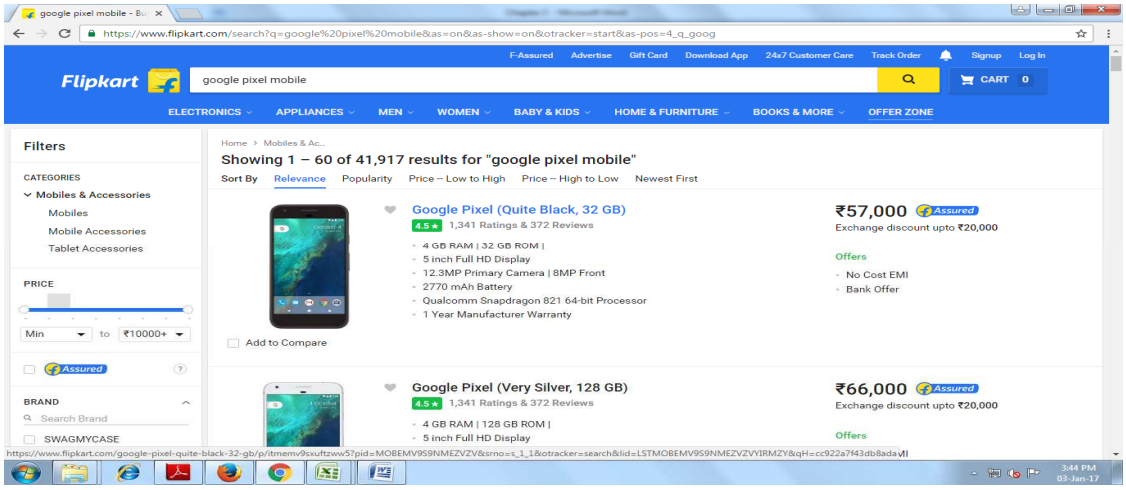
**Figure 3.1**

**Web Page of an Online Shop**

## Product Page

While given a search, the consumer will be provided with the list of all products with its pictures, price quoting, product ratings, user reviews and basic product details. Here the consumer can select any of the items as per their wish by clicking on the picture of the product.

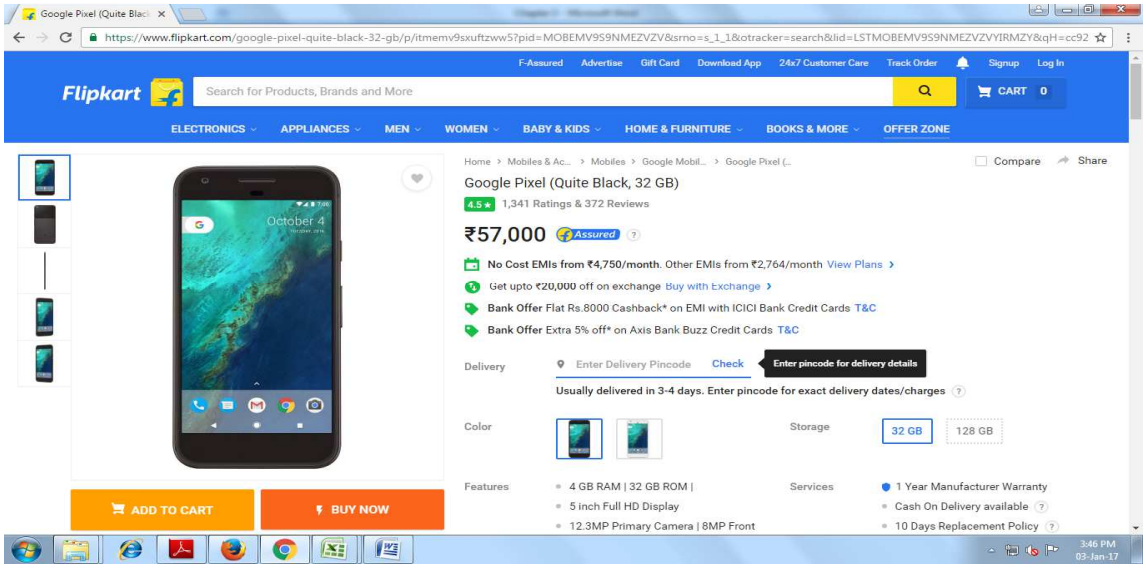
**Figure 3.2**
**Product page**




By clicking on the product of choice, the consumer will be provided with pictures of the product in various angles and on pointing the cursor on the product, they can see the magnified image. In this page there will be details about the EMI options for the consumer, PIN code checking for ensuring proper delivery of the product and detailed specification about the product. Here the consumer can also see two buttons “Add to Cart” and “Buy Now”

**Figure 3.3**

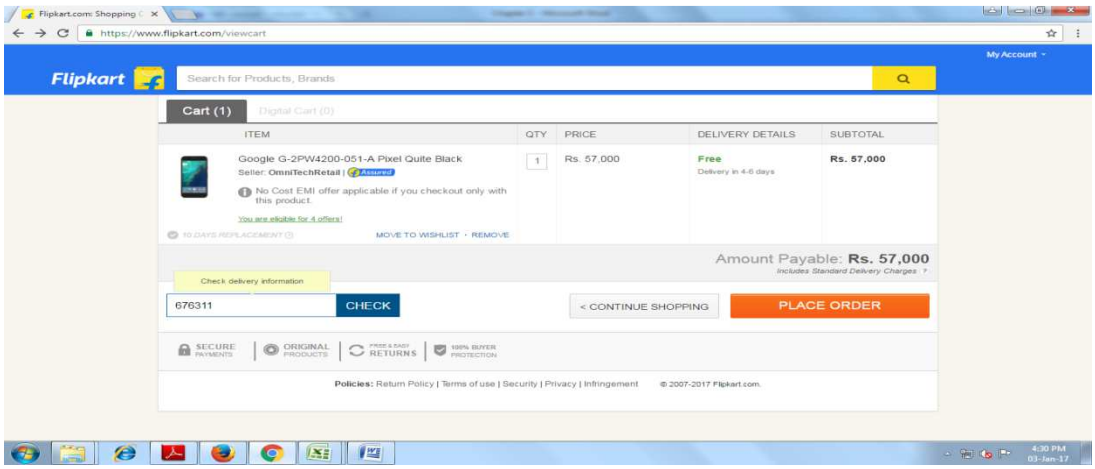
**Product Picture page**




If the consumers want to put it in their shopping cart, they can click ‘Add to Cart’ button. This page shows their cart details like Item, Quantity ordered, Price, Delivery details and Sub Total. Here the consumers can go for new shopping by clicking ‘Continue shopping’ button or complete transaction by clicking ‘Place order’ button.

**Figure 3.4**

**Shopping Cart Details**



## Customer Login

If the consumers want to buy the item, click ‘Buy Now’ button shown in figure 3.3. Then the consumer will be moved to a new page. Here they need to login in to the site by providing either their mobile number or email id. Then click ‘continue’. Then they will be asked to type a password and to click ‘Login’.

**Figure 3.5**
**Consumer login page**

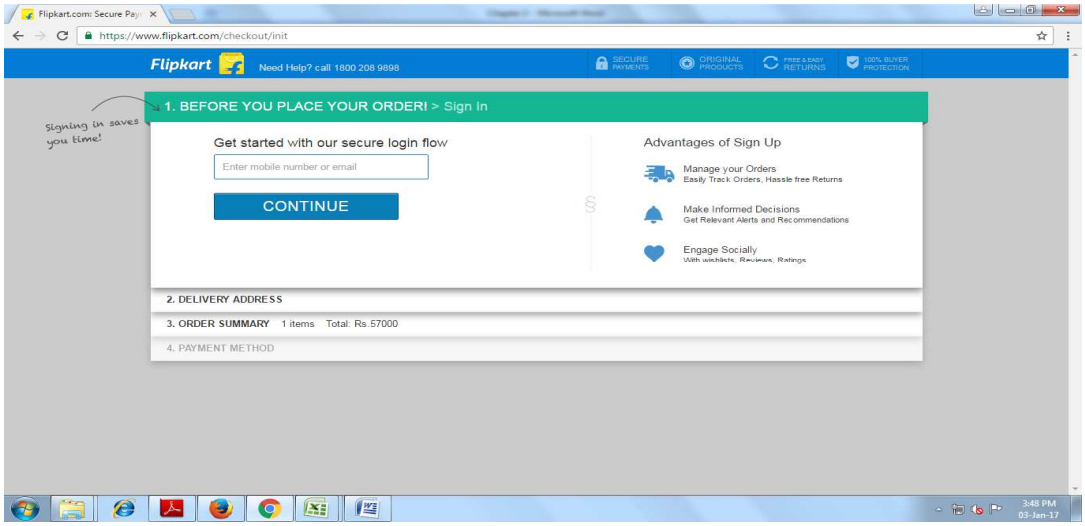
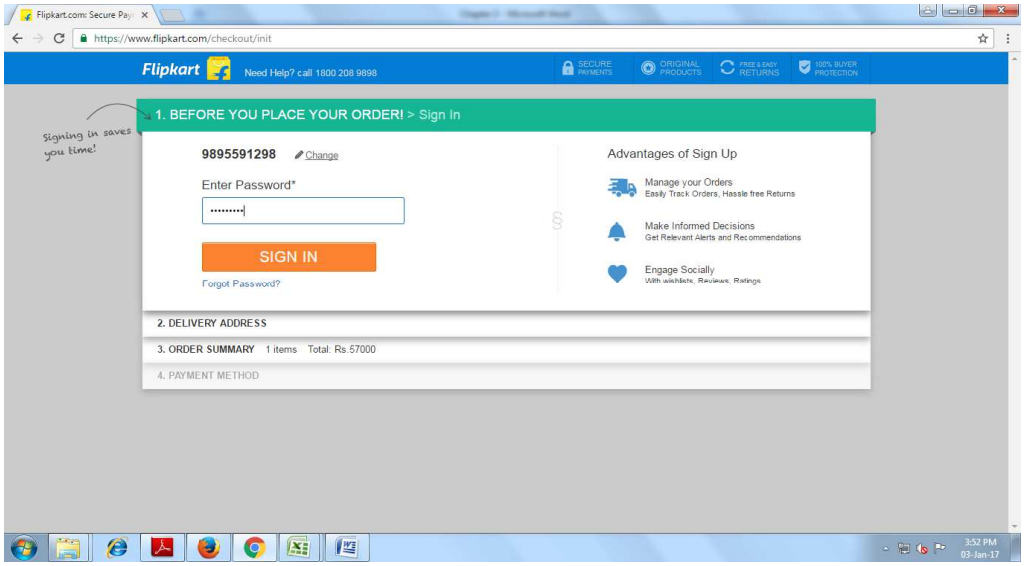



**Figure 3.6**

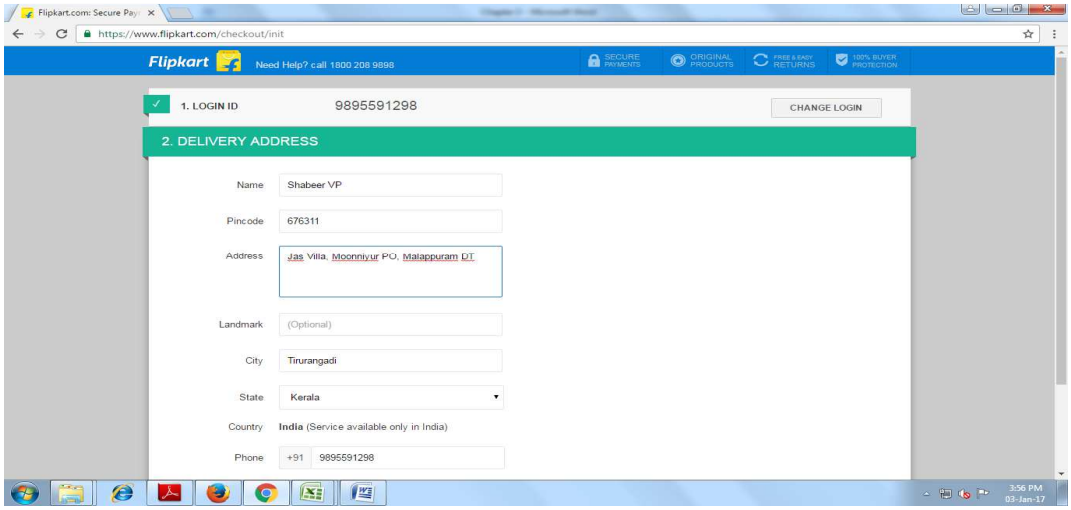
**Consumer login page2**



Then they will be moved to a new page where they have to provide their delivery address. Then click ‘Save & Continue’

**Figure 3.7**

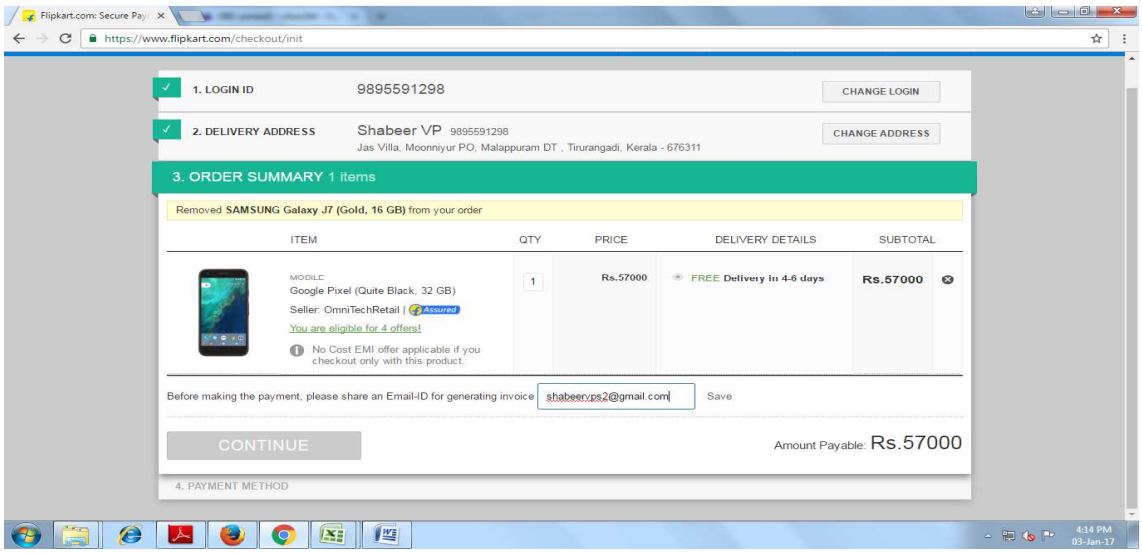
**Delivery Address Page**




The consumers will be taken to a new page which shows the order summery. This page will show the details about the Item, Quantity ordered, Price to be charged, Delivery details and the Sub Total. At the end of the page the consumers have to share their email id for to generate their invoice. Then click ‘Continue’.

**Figure 3.8**

**Page Showing the Order Summery**

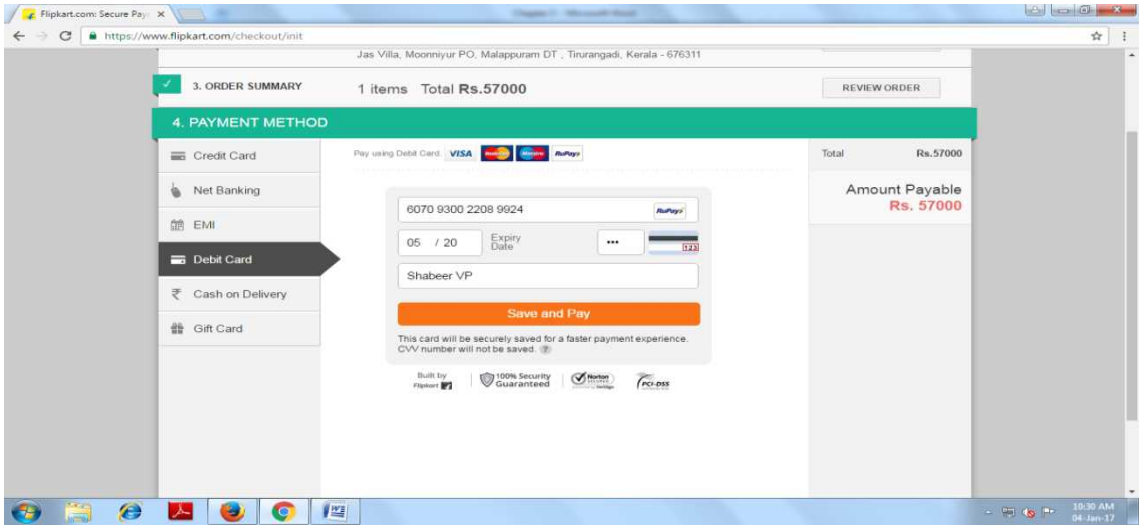


**Check out & Payment**

The customer will be taken in to the payment method window. Here they can select their payment choice from options like Credit card, Net banking, EMI, Debit card, Cash on delivery, Gift card and mobile wallet. Click ‘Save and Pay’ button after providing the card details like card number, name printed on the card, validity of the card and CVV number.

**Figure 3.9**

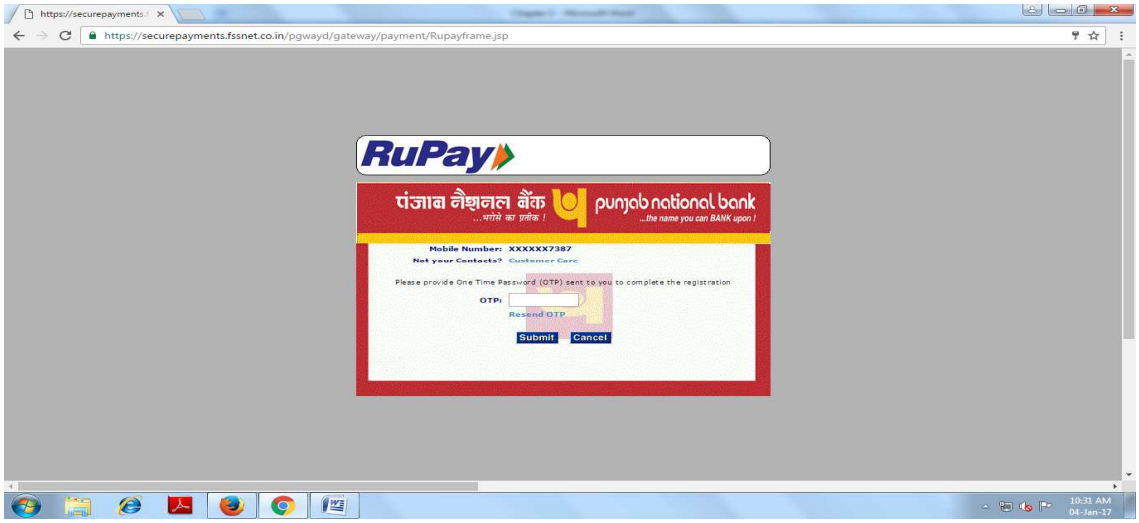
**The Payment Window**




The system will send an OTP to the registered mobile number of the consumer as SMS. Type the OTP in the given space and click ‘Submit’ to process the payment or click ‘Cancel’ to drop the transaction.

**Figure 3.10**

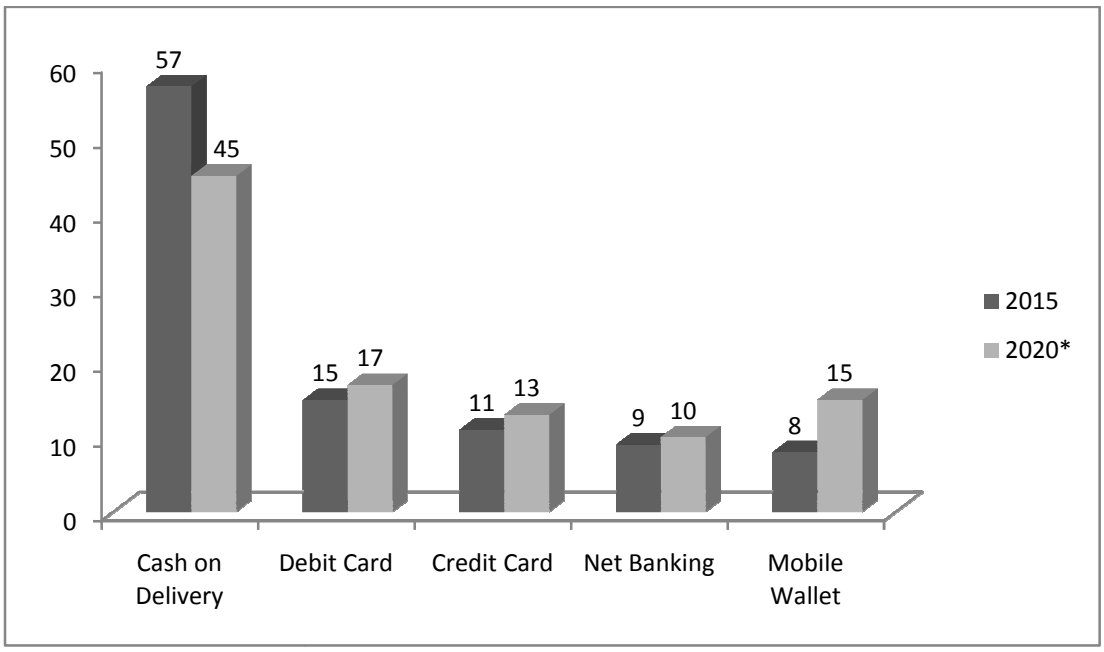
**The Payment Window- OTP**




The percentage of preferred online payment methods among various options of payment followed by e shopping consumers in India from 2015 to 2020 are presented below in diagram 3.5

**Diagram 3.5**

**Choice of Payment among Online Consumers**




(Source- Statista: preferred digital payment method in India from 2015 - 2020)

The statistics in the above diagram 3.5 shows that majority (57%) of online buyers in India presently follows the cash on delivery system of payment method in online shopping. But the trend of using this method of payment is decreasing over the years. By 2020 it is estimated that only 45% of online buyers will choose this method of payment. But as for the other modes of payment is concerned; it shows that the percentage of using debit card, credit card, net banking and mobile wallet will continue to increase over the years.

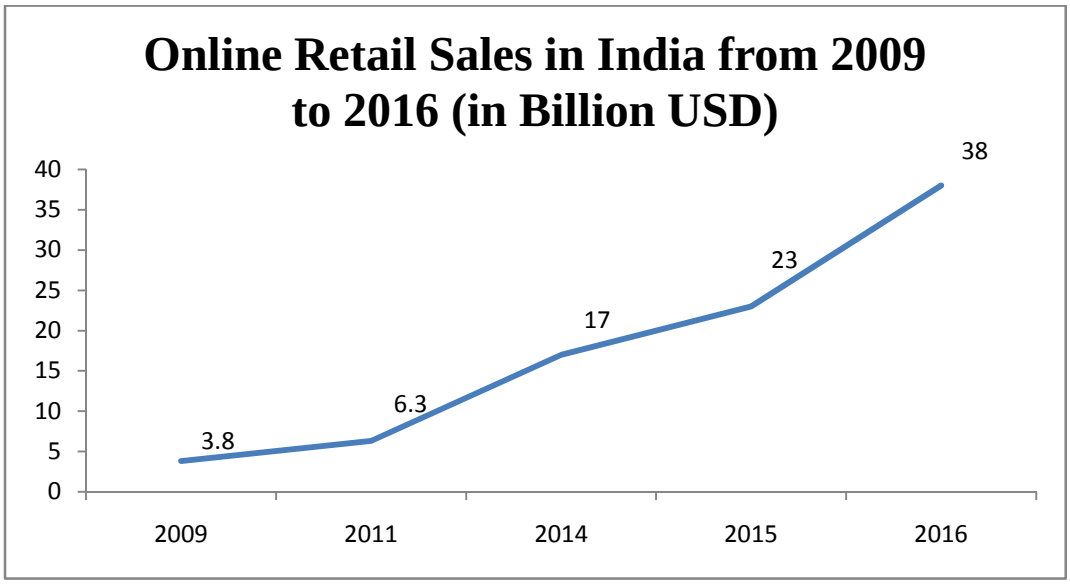
**Delivery**

After confirming the payment, the company delivers the product to the address provided to the store. Normally the period of delivery will be informed to the consumer during the process of purchase. During the process of purchase the store will verify the postal pin code of the consumer to check the possibility of delivering the product to the given address and will inform them the delivery period also. If the company is not delivering the product to the pin code given, will ask him to change it and provide a new pin code.

## 3.4. Online Retail Sales in India

The online shopping habit is increasing among the consumers in India. More and more people are coming to use the online stores for making their retail purchase. The researcher checked the data of online retail sales volume and its share in total sales volume in India.

**Diagram 3.6**

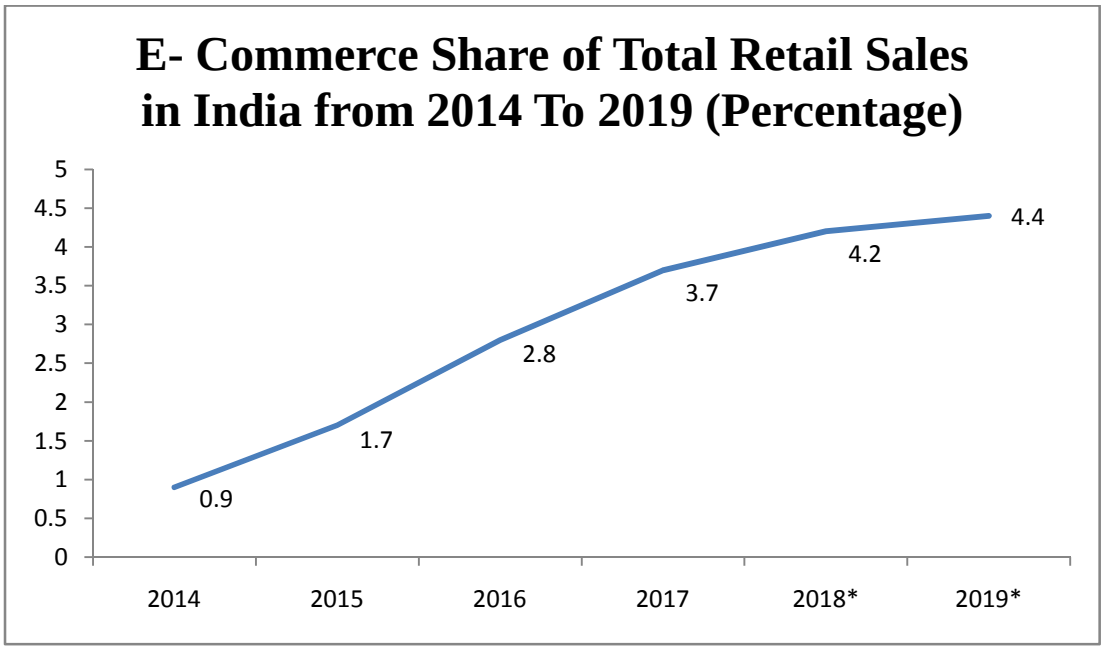



(Source- Statista: Online Retail Sales in India from 2009 to 2016 (in Billion USD))

The above statistics related to online retail sales in India over the period of 2009 to 2016 shows that the online sales volume in India is steadily increasing. In 2016 the sales volume is 38 billion US Dollars while it was only 3.8 billion US Dollars in 2009.

The researcher further checked the share of e- commerce sale to total retail sale in India. The results are presented in diagram 3.6 below.

**Diagram 3.7**




(Source- Statista: E- Commerce Share of Total Retail Sales in India from 2014 to 2019, (*estimate))

The figures in the above diagram show that the share of online business in total retail sale in India is also increasing steadily over the years. The share of online business to total retail business in India was only .9 percent in 2014 but it is estimated to be increasing to 4.4 percent in 2019.

## 3.5. Safety in Online Shopping

As discussed in the earlier chapters, the internet becomes a revolution in the life style of modern generation. Online shopping has also become a part of today's shopping culture. Day by day, more and more people are entering in to online shopping world. The penetration to the online shopping is increasing every year throughout the world.

As the online shopping habits increase, the fraudulent activities are also increasing in the field of e shopping. The online frauds may try to steal the financial as well as the personal information of the e shoppers. As a result of this some people are still hesitant to do online shopping. They still worry about providing their credit/

debit card details online. Hence, customers need to take more safety and precautionary steps in using online shopping.

Some safety and precautionary measures are listed below to control the fraudulent activities in online shopping and to make the shopping experience safe and secure.

**Company profile:**

It is important to check the identity of the online store first. There are online stores who concentrate only on online selling and their brand name is popular and recognizable easily, like Flipkart, Amazon, ebay etc. In addition to this, there are so many reputed real life retail stores who now entered to online selling to serve their customers well. But it is important to check those stores who do not have any retail store or instant recognition. Some fraudulent sellers try to cheat the buyer by creating fake web stores that normally seem to be so genuine. It is important to check the registration details and contact of the store before furnishing any sort of personal and financial information and making any online deal.

**Website privacy policy.**

Before furnishing the financial and personal information of the consumer, one should look for the privacy policy of the web store and understand how they store and use the details provided. Whether they use the data beyond the transaction like to send any emails, update deals or pass to any other third party.

**Personal and financial information**

Make sure that the information entered in the site is correct for making a transaction. An incorrect personal and financial data may cause many unseen problems. So before closing the transaction, it will be better to review the entered data.

**Phishing filter.**

To make sure that the online shopping web site is legitimate, it is better to install a phishing filter in the computer. This will help the customer to protect from phishing sites by alerting whenever it detects any distrustful or unauthentic website. Avoid or ignore all deals and offers that are too good to be believable in normal cases.

Look out for the following details before closing the transaction and making the payment.

- Delivery cost
- Delivery address
- Product warranty scheme
- Payment options
- Product tracking system
- Order cancellation system
- Products return policy if not satisfied
- Cash refund system if order cancelled.
- Select a secure payment option

In all online shopping sites, there will be a number of payment options available for the customer to choose from like Credit card, Debit card, Net banking, Gift card, EMI, and Cash on delivery. The customer can select any option which he thinks more secure and safe to him.

**Keep a transaction record.**

After making a transaction, it will be better to maintain a record by keeping the details like, the transaction id, date and time of the transaction etc. Normally the web store will send an email to the consumer showing all the details of the transaction.

## 3.6. Setting Up of an Online Business

Both the central and state governments are promoting entrepreneurship to substitute the employment searching among the people. But still people are hesitating to enter in to the field of business. It may be because of the complicated procedure and heavy investment to set up a business. The popularity of internet and usage of social media have opened a new area of entrepreneurship. If one wishes to start a business career but do not have enough capital to own a franchise or open a store, it is the time for to consider starting an online business. There are no much complications to set up a business online. It offers incomparable opportunity to start a business around the world with only having a computer and proper internet connection. Compared to the traditional business, online trading only takes minimum resources and time, that's why it is a less investment way to run a business. A brief explanation is given below about setting up of an online business to develop an understanding among the people who are interested in it.

**Develop a Business Plan and Model**

It is essential to develop a well defined business model and plan to start an online business, just like to set up any traditional brick and mortar business. If one do not have proper planning for each stage and for different situations, the possibility of failure will be very high. The law, competition, cost etc everything should be closely monitored and planned accordingly. There is a saying that "walking out unprepared is a risk that anyone should not take" is applicable to this form of business also.

**Decide the Product or Service.**

The product or service in online business is equally important as in traditional business. What differentiates the product or service from the products of other sellers really matters. There may be hundreds of online sellers offering the same kind of products or services. So, one should focus on the uniqueness of the product. It is better to concentrate on serving products to any one or two particular segment of the market in the beginning stage.

**Register the Business and Domain Name.**

One should take care of the business regulations prevailing in the state regarding online business. The business needs to be registered along with its domain name as per the states law. The domain name should be easy to catch and short to pronounce for the customers. The business will be official only after proper registration.

**Design an E Commerce Website.**

Website is the face of an online shop. It must be attractive and user friendly as far as possible. Normally a website will get very short time to grab the attention of the customers. So it must be looking gentle to promote the product. It should provide convenient 'log in' to the home page, easy and convenient ordering layout, the character font size must be easy to read and clearly display the product pictures. Make sure that the logo of the business which is placed at the top of the page links to the home page of the website. Most importantly, the website must be easy to use for the customers when they are willing to make their purchase.

There are two options for the online business to choose, in order to create a website.

- Build a new website designed around the requirement of the online business by contacting a web developer.
- Contact a website provider who offers customized designs to fill with information and pictures of the products.

The website should communicate to the people about the business. The address, history and the vision should be furnished in the website. It also has to encourage the customers to get in touch in future also with the business by providing all the contact details.

The website security is also very important for the benefit of the business as well as the customers. The reputation of the business is highly depending upon the security of the information furnished by the customers. Once the trust towards the

business is lost, it is hard to rebuild again in the minds of customers. The security system of the website must be updated on a regular basis. The business should install antivirus software to block virus attack to the website and ensure spam filters in the website.

**Shopping Cart Software**

The shopping cart software will allow the website to display the products, track the orders and manage the order inventory. Customers can pick the items which they decide to purchase from the website and add to the shopping cart till they complete their online purchase. When the buyer completes the purchase, the shopping cart will calculate the amount of the items in the cart and display it after including the delivery charges, if any, associated with the product. This software also will be able to help in choosing which payment portal to be selected to transfer payments and manage the transaction.

**Set up a Merchant Account.**

To receive payments from the customer after completing their online purchase, the business needs to set up a merchant account. This is similar to a normal bank account which allows the business to receive the card payments made by the customers. The website will lead the customers to the payment page after completing their purchase.

**Go Social.**

When the online shopping website is ready to operate, let the customers hear about it. Whatever is the product, flying the name always in the air is the key to success of the business. Use the social media platforms so regularly. It is good to have a Facebook, Twitter, Google Hangouts and Instagram account to make the business more popular. These platforms will provide free account and are also good places to get starting the online business. It is good to use the business logo as the profile picture so that the customers can easily identify and recognize the business. Go social is all about getting involved the business with the customers.

## 3.7. Conclusion

Online shopping is comparatively a new style of shopping among the people of India. The slow growth of financial and technological sector adversely affected the pace of online shopping penetration in India. But now a day, along with the all round developments of the country, the life style of the people are improving and online shopping also started to show an increasing trend. A number of online shopping companies are started their operations in India and many Indian traditional retail shops have now started their operation through internet by setting up an online web store. The e shopping companies made their web store more attractive and shopping made so easy through simple shopping procedures.

The researcher made an attempt to provide an overview about the online shopping in India in this chapter. The major online shops in India and their volume of business, the shopping procedures and the safety measures to be taken while making an online purchase are briefly explained in this chapter. Various statistics related to online business in India like online retail sales over the years and its share to the total retail sales, the number of digital buyers, preferred digital payment option among the consumers etc. are also discussed with the help of diagrams showing the related statistics.

## References

http://www.flipkart.com

Statista (2016),- The statistics Portal, https://www.statista.com/statistics/251631/number-of-digital-buyers-in-india/

# Chapter 4

# Methodology

- **Introduction**
- **Research Design**
- **Research Model**
- **Hypothesis of the Study**
- **Sample Design**
- **Data Collection Method**
- **Questionnaire Development and Structure**
- **Pilot Study**
- **Online and Offline Survey**
- **Techniques of Data Analysis**
- **Conclusion**

## 4.1 Introduction

This chapter explains the details of the research methodology used to collect data from the respondents for testing the hypothesis and there by fulfilling the objectives of the study. The population for this research is the people of Kerala who were the users of internet and purchased any of the technological products online during the past 12 months. The internet penetration and its usage are growing at an increasing rate in Kerala every year. Online shopping habits among the people of Kerala are also increasing in the same manner. So it is very difficult to calculate the total number of population of the study who are online buyers of technological products. The first chapter briefly described the methodology of research and the source of data to be collected. Here in this chapter the researcher describes in detail about the research design, defining the sample and its size, questionnaire development and collection of data.

## 4.2. Research Design

A research design simply means the plan or outline of the research study to search and find out the answers and results to the research questions and hypothesis. The researcher came in to a conclusion that Descriptive research is the most appropriate design for this study about the online purchase of technological products among the e shopping consumers in Kerala. While analyzing the previous studies and literature, it is identified that there are mainly three types of research designs commonly used by the researchers to investigate answers for their research questions. These are descriptive design, exploratory design and casual designs.

Seven research constructs and variables associated with each construct are identified. In addition to this few more variables relevant to the study are also identified. The research objectives and problem has also been stated clearly. So the descriptive research design will be more suitable to measure the research problem and describe the factors influencing online purchase of technological products by the e shopping consumers in Kerala.

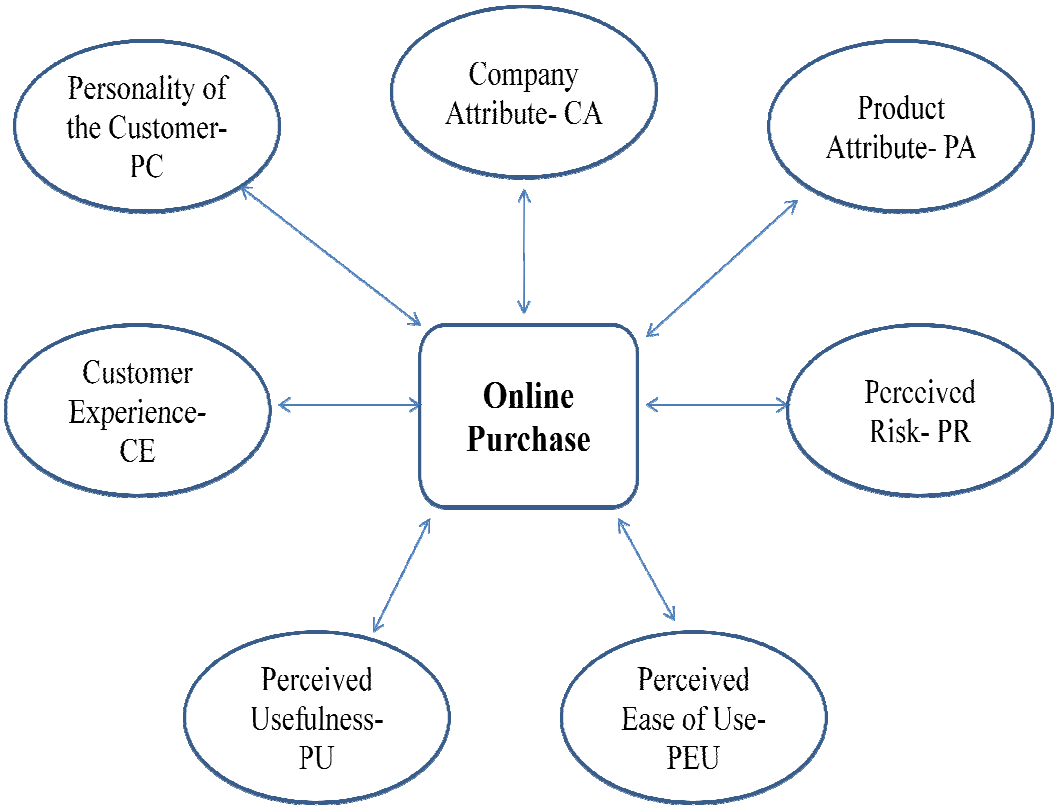
## 4.3. Research Variables

The researcher has already identified seven research constructs namely, Company Attribute (CA), Product Attribute (PA), Perceived Risk (PR), Perceived Ease of Use (PEU), Perceived Usefulness (PU), Customer Experience (CE) and Personality of the Consumer (PC) based on the data from the previous literature and discussions with the online shoppers in Kerala. Various variables associated with each of this constructs are also identified and are shown in the second chapter. In addition to these, there are some more variables identified by the researcher while reviewing the literature which are also relevant to the present study.

- Place of internet access
- Device used to make online shopping
- Time required for completing an online purchase
- Most popular product and service in online market
- Number of online purchase made a year
- Kind of technological products purchased online
- Delivery period in online shopping
- Online spending for buying technological products a year
- Future online shopping intention of consumers
- Online shopping recommendations

## 4.4. Research Model

**Diagram 4.1**




***Source: Developed for the Research***

## 4.5. Hypotheses of the Study

The following hypotheses have been set to achieve the objectives of the research.

- Null Hypotheses related with the objective 'To analyze the experience and intention of consumers towards online purchase'.

1. There is no relation between the time required to complete an online purchase and demographic factors of an online buyer
2. There is no relation between demographic variables and online spending a year by the consumer

3. There is no relation between place of buyer and delivery period in online shopping
4. There is no relation between number of online purchases a year and demographic variables

- Null hypotheses related with the objective 'To identify the influence of various devices used in online purchase habits of consumers in Kerala'.

1. There is no relation between demographic factors of an online buyer and device used for making purchase

- Null hypotheses related with the objectives, 'Explore the relative importance of factors that encourage or discourage consumers from buying technological products online' and 'To analyze the demographic differences among the online buyers in considering the influencing factors of e shopping'.

1. There is no relation between demographic variables and company attributes on online purchase.
2. There is no relation between demographic variables and product attributes on online purchase
3. There is no relation between demographic variables and perceived risk on online purchase
4. There is no relation between demographic variables and perceived ease of use on online purchase
5. There is no relation between demographic variables and perceived usefulness on online purchase
6. There is no relation between demographic variables and customer experience on online purchase
7. There is no relation between demographic variables and personality of the consumer on online purchase

## 4.6. Sample Design

The researcher realized that it is very difficult to conduct a survey for the online shoppers in Kerala since there isn't any secondary data which leads to measure the quantity of the internet shoppers. There is information about the internet users in the literature and the secondary sources but the online shoppers represent only a limited number out of the total internet users. It is identified from the literature that there is no proper data register or statistics which shows number of online shopping site visitors and buyers geographically.

Since there is only limited number of proposed respondents who can contribute to the research study, the researcher had to go for purposive sampling technique. Purposive sampling also know as Judgment sampling, is a non probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher. According to Black, K. (2010), researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money.

Based on the literature the researcher reached at a conclusion and judgment that the computer and internet using people are capable of being selected as the sample population. The employees of private and government sectors, professionals, business class people, the people working abroad and their family and the students of higher secondary and colleges represent the major part of the internet users in Kerala. The population consists of internet users of three districts randomly selected from three regions of Kerala. The population also includes both urban people and rural people of Kerala. So the people of the above said sectors and areas served as the sample population of this study.

## 4.7. Sample Size

Under the circumstances of unsure total population, the researcher uses the following formula is applied to calculate the sample size for the study. The researcher wishes to have a 95% confidence level and 5% confidence interval of the right population of the online shoppers to calculate the sample size.

Sample size = $Z^2$ x (p) x (1-p)/$C^2$

Where:

Z= Z value. (1.96 for 95% confidence level)

P= Percentage picking a choice, expressed as decimal (.5 used for sample size needed)

C= Confidence interval, expressed as decimal

Sample size = $1.96^2$ x (.5) x (1-.5)/$.05^2$

= 3.8416 x .25/ .0025

= .9604/ .0025

= 384.16

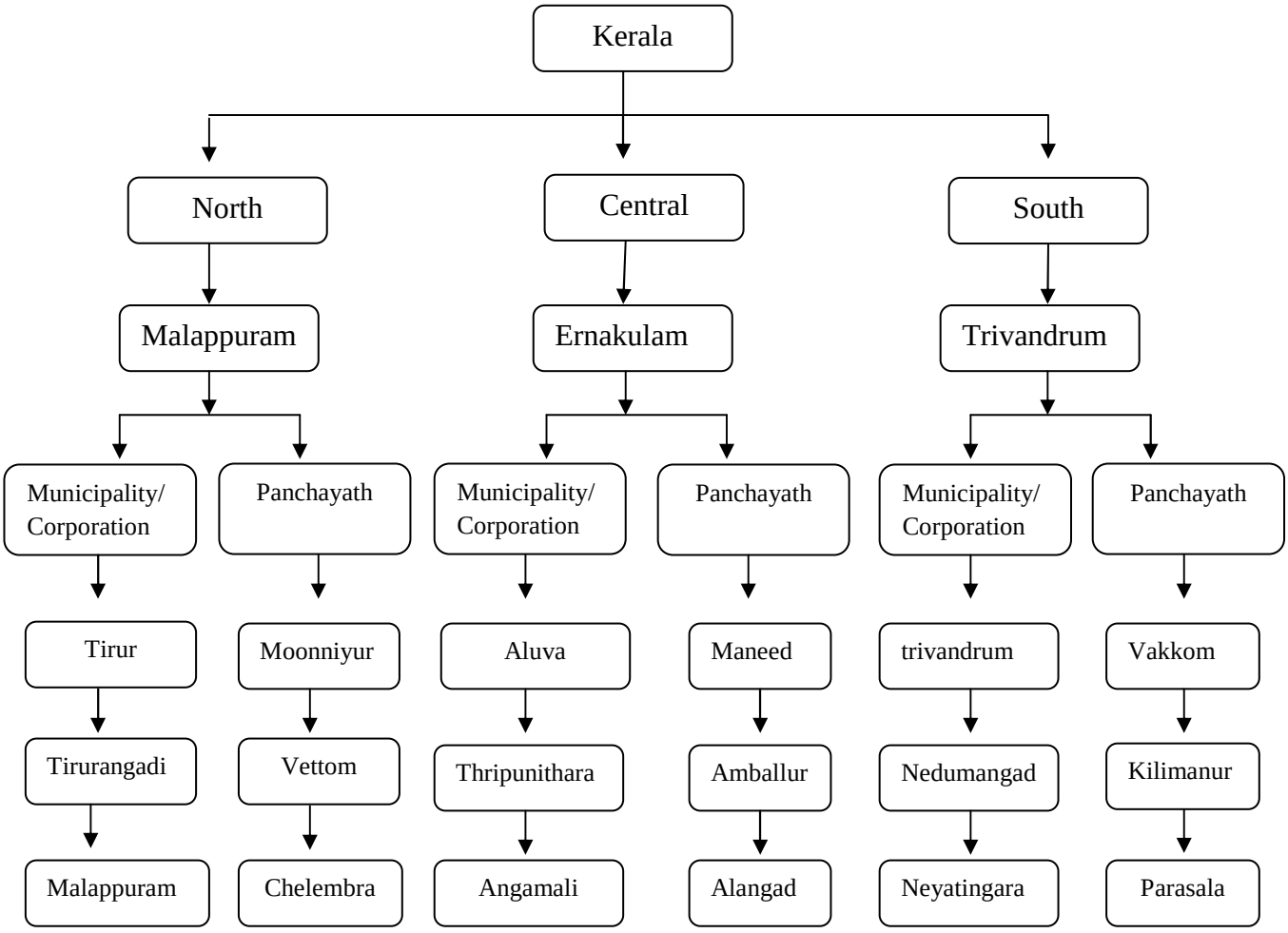
So the sample size calculated for this research study is rounded off to **384** samples.

## 4.8. Data Collection Method

The research was conducted and data collected from three districts of Kerala drawn from three regions namely North region, Centre region and South region as mentioned in the first chapter. One district from each region is selected randomly by using lottery method. The selected districts are; Malappuram district from the North region, Ernakulam from the Centre region and Thiruvananthapuram from the south region. Equal numbers of 128 samples are selected from each district. Three corporation/ municipality and Panchayath were selected from each district randomly also by using lottery method. The population from corporation/ municipality is considered as urban population and the population from Panchayath is considered as rural population. The selected districts, corporation/ municipalities and Panchayath are shown in the diagram 4.2.

**Diagram 4.2**

**Data Collection Map**




## 4.9. Questionnaire Development and Structure

The research was undertaken with a well structured questionnaire having two parts. As the researcher decided to conduct an online survey to collect the data, a self administered online questionnaire was prepared by using Google form. The first part helps to collect the demographic information of the respondents and their internet usage pattern and experience in online shopping. All demographic questions like gender, age, marital status, education, income, place of living and area of residence etc. and questions related to internet usage and online shopping habits like hours spent in internet, device used to make online purchase, time taken to complete

a transaction etc are involved in the first part of the questionnaire. The respondent was asked just to click on the column provided in the Google form questionnaire to respond to each question.

The second part of the questionnaire was structured in such a format that the respondent has to choose his opinion in a five point Likert Scale. The five point Likert scale measures the level of agreement from Strongly Agree to Strongly Disagree, of the respondent to various statement related to the hypothesis set by the researcher to satisfy the objective of the research. The statements related to online shopping are distributed under the 7 research constructs specially developed for this study. This part of the questionnaire helps to collect the opinion, perception and attitude of the customer regarding online shopping. The questions were developed from the literature and the experience of the researcher in the field of online shopping.

While reviewing the literature, it was observed that variety of methods were used by different researchers for data collection for their research work like, face to face interviews, questionnaire methods, telephone, e mail and combination of all these. The present study used a self administered online survey for the data collection by using questionnaire prepared through ***Google Form.***

Data collection is the process by which the opinions and useful information from target respondents about the topic are collected, classified and categorized according to their demographic and socio economic characteristics (Churchill GA. 1987). Here the researcher tries to justify his decision about the selection of online survey, which is the most appropriate data collection mode for this research work.

The research objective is to get information from the internet users of Kerala about their motivation and intention in buying technological products through online shopping. The proposed respondents of this survey are people who were very much involved with the internet and using it as a part of their day to day activities. In normal conditions these respondents are economically from middle and upper class families and they were either students or working people. So it will be difficult for the researcher to get physical access of these people in day time because they may

either in their educational institutions or in the offices. In such a circumstance it will be better to use a self administered online questionnaire to get the required information from them.

### 4.9.1 Advantages of Google Form Online Questionnaire

A self administered online Google form questionnaire has the following advantages in using it in a research study.

- It can be designed and administered easily.
- The respondents will get enough time to read and answer the Google form questionnaire as and when they feel comfortable.
- It will help the researcher to reduce the cost of data collection
- It will help the researcher to collect the data so fast compared to the traditional questionnaire method.
- The chances of accuracy in result will be much high compared to the traditional survey.
- There will not be any influence of the biases of the researcher in the responses of the respondents.
- The researcher can access the respondents easily irrespective of where they work or resides.
- It will create interest among the respondents to respond to the questionnaire as it will not be a boring one.

### 4.9.2. Weaknesses of the Online Questionnaire

There are a number of strengths for the online questionnaire as pointed out above, still it has certain limitations also.

- The response rate in online survey is difficult to predict. Many junk mails are received each day by the people. So there may be chance for not getting the attention of the respondents towards the mailed questionnaire.

- There may be delay in receiving the response of the respondents. There isn't any face to face interaction with the respondents by the interviewer. So there is no chance to for the interviewer to compel the respondents to react to the questionnaire in time.

- The respondent who uses the internet and check the mail on a regular basis will be able to notice the questionnaire and answer it.

- There is no chance for the interviewer to give explanations and clarifications to the respondent when they are needed.

All weaknesses of the online questionnaire are duly considered and necessary strategies taken to overcome these weaknesses. Proper covering letter is attached with the questionnaire mail to get the attention of the respondents. Follow up mail and phone calls are also made to increase the response rate and reduce delay in responding. Questionnaire is sent only to those people who are regular users of internet and work in it. The questionnaires are designed in such a way that, it is easy and simple to understand for anyone. There will not be any need for further explanation to answer the questionnaire.

In summary, the researcher considered, an online self administered Google form questionnaire will be the most suitable way for collecting the required quantitative data for this research study. The researcher considered both the advantages and the weakness of the online questionnaire and took maximum advantage of the strength of online questionnaire and took necessary strategies to overcome the weakness.

The Google form questionnaire was sent to the respondents in two sets. The first set of questionnaire to collect the demographic details of respondents and the basic quantitative information regarding their experience in online shopping. After receiving the filled first set questionnaire, the second set of Google form questionnaire is sent to them to collect information regarding the opinion, beliefs and attitudes towards online purchasing of technological products.

## 4.10. Questionnaire Layout

The questionnaire is designed in such a way that, it should attract the attention of the respondents and creates interest among them to go through it by using easy and simple to follow layout style. Online surveys are a new method of data collection for the respondents of Kerala. As majority of the data is collected thorough online questionnaire, the researcher is not having a face to face interaction with the respondents to explain the questions. So enough care was given to make it easy to understand and follow with the objectives of the research. A good lay out design is important to achieve high response rate and low fatigue among the respondents.

- Completion time: The questions are designed in such a way that, the respondents can understand the questions so easily and there by save the filling time. The questionnaire can be filled within 15 minutes of time even for a lazy respondent.

- Order of questions: The related questions are sequentially arranged one by one to keep the continuity and there by create interest among the respondents.

- Covering letter: A covering letter explaining the importance of completing the questionnaire rather than an appeal was given to encourage the respondents to respond.

- Message box: A message box is provided with questionnaire to suggest their views and opinions about the research topic in addition to the information under the questionnaire to create a feeling of participation in the minds of respondents.

- Length of the questionnaire: The total length of the questionnaire is limited to 6 pages of A4 size paper.

- Arrangement of questions: The questions were arranged under 3 sections namely A, B and C and the length of the questions is also trimmed to meet the objective. This will be helpful to reduce the fatigue among the respondents while reading the questions.

- Priority: The most important and interesting questions are arranged at the top of each section of the questionnaire to create and maintain the interest of the respondents.

- Use of logical routing: The questionnaire was designed in such way that the respondents were offered provision to quit from the questionnaire when they were not eligible to go further. For example, if the respondent ticks 'No' to the question 'have you bought product or services online during the past 12 months' he will be automatically out from the questionnaire and their response will not be recorded. It was helpful to screen the respondents who were not useful for this study.

- Data submission: the online questionnaire was designed in such a way that the respondents could not submit the incomplete questionnaire into the system. If the respondents try to submit the questionnaire without filling the entire mandatory columns, they will be routed back to each unfilled columns. Only the completed questionnaire was accepted by the system.

- Question type: majority of the questions used in the questionnaire are close-ended. Only few questions are there in the questionnaire as open ended.

Pretest of questionnaire is conducted frequently at different stage of layout to know how well the respondents understand the questions, time taken to complete the questionnaire and is there any confusion created in their minds while filling it etc. The questionnaire is tested with the online consumers who were in personal touch with the researcher. In addition to this, opinions were also asked from the experts about the questionnaire design. The layout of the questionnaire is revised and adjusted according to it.

## 4.11. Pilot Study and Pre-Test.

It is important to conduct a pilot study to ensure the strength and weakness of the questionnaire in order to make necessary revisions and adjustments in it. After preparing the Google form online questionnaire, the researcher conducted a pilot study among 39 respondents which is 10 percent of the sample size during the

period of December 2016 to February 2017. The online questionnaire was mailed to 13 respondents from each regions randomly selected by the researcher who were having similar profiles. The participants of the pilot study were requested to note the level of difficulty of the questions, time taken to complete the questionnaire and to put their suggestions for further improvement. This process helped the researcher to find weakness and confusion in the design of the questionnaire and revise and adjust it accordingly before sending to actual field survey. After receiving response, it was numbered and coded accordingly. The code sheet was prepared in Excel and entered in SPSS by the researcher himself.

Reliability testing is very essential for the validation of the scale and to check the dependability or internal consistency of the statements. In this study, the reliability of the scaled statements was tested by using Cronbach's Alpha Reliability Coefficient and ANOVA with Tukey's Test for Non additivity. An alpha value of 0.70 or above is considered to be criterion for demonstrating strong internal consistency. The result of the test is shown below in Table 4.1 and 4.2 and it exhibits the reliability of the scale adopted and confirms that the data are Stabilized and Not Repeated. Cronbach's Alpha for these scaled statements in both questionnaire and interview schedule are higher than the standard Cronbach's Alpha of 0.70. Hence, it is proved that internal consistency of the scales is high, and both the questionnaire and interview schedule can be considered as highly reliable.

Necessary changes were made in the questionnaire as per the feedback and suggestions from the respondents of the pilot study. After revising the questionnaire used for pilot study, expert opinions were taken to finalize the questionnaire to use in the actual field survey

**Table 4.1**

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | Number of Items |
|---|---|---|
| .869 | .885 | 68 |

**Data is reliable**

**Table 4.2**

**ANOVA with Tukey's Test for Non additivity**

| | | | Sum of Squares | df | Mean Square | F | Sig |
|---|---|---|---|---|---|---|---|
| Between People | | | 103.087 | 38 | 2.713 | | |
| Within People | Between Items | | 1343.175 | 67 | 20.047 | 56.410 | .000 |
| | Residual | Non additivity | .000[a] | 1 | .000 | .000 | .996 |
| | | Balance | 904.811 | 2545 | .356 | | |
| | | Total | 904.811 | 2546 | .355 | | |
| | Total | | 2247.985 | 2613 | .860 | | |
| Total | | | 2351.072 | 2651 | .887 | | |
| Grand Mean = 3.632 | | | | | | | |

Tukey's estimate of power to which observations must be raised to achieve additivity = 1.001.

**Data found to be stabilized and not repeated**

## 4.12. Online Survey

After checking the reliability of the collected data, few corrections were made in the online questionnaire and sent to 600 people in different time periods during 2016 and 2017, through email in Google form format. Collecting email id of the respondents was not felt a difficult task for the researcher. The researcher used his personal and official contacts in this process. The friends and relatives who owns and working in different IT companies, government and private sectors, working abroad and in different educational institutions, really helped so much. But the response rate was not up to the expectation of the researcher. So the researcher sends reminder mail and made phone calls to the respondents. Finally it was managed to receive 353 filled Google forms (Response rate of 59%). But when the researcher goes through the received Google forms, it was found that around 109 responses were incomplete or have serious factual mistakes. The questionnaire was sent again to them by mentioning the mistakes through mail. Through this, 67 correct responses

were received, contributing to a total of 311 duly filled valid responses through the online survey.

## 4.13. Offline Survey

The researcher, when goes through the response of the online survey, it is found that respondents numbers of business class, students and people working abroad who were actually making online purchase, are very few. The researcher finds that even though the above class of people are using internet so frequently but they were not checking their emails regularly. So the researcher decided to conduct an offline survey for them to make the response to the sample size of 384. The researcher took print outs of the same questionnaire which is used for online survey by making some slight changes in its layout. The remaining 73 responses (19% of the sample size) were collected from these people through the offline survey.

Thus a total of 384 online buyers of technological products who were having different demographic backgrounds and living in Kerala, responded well and the data provided by them actually formed the bases for this research study.

## 4.14. Tools and Techniques Used for Analysis of Data

Mathematical and statistical tools and techniques used for analyzing the collected data are given below.

- Percentage and Cumulative Percentage: In mathematics, a percentage is a number or ratio expressed as a fraction of 100. It is often denoted using the percent sign, "%".
- Cross tab: Cross tabulation simply means the data tables, which present the results of the entire group of survey respondents as well as results from sub-groups of respondents.
- Chi square test: A chi-squared test, also written as $\chi^2$ test, is any statistical hypothesis test where the sampling distribution of the test statistic is a chi-squared distribution when the null hypothesis is true. The chi-squared test is used to

determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories.

- Mean and Standard Deviation: The standard is a measure that is used to quantify the amount of variation or dispersion of a set of data values. A low standard deviation indicates that the data points tend to be close to the mean of the set, while a high standard deviation indicates that the data points are spread out over a wider range of values. The mean is the central value of a discrete set of numbers: specifically, the sum of the values divided by the number of values.

- Brown-Forsythe Robust test of equality means: The Brown–Forsythe test is a statistical test for the equality of group variances based on performing an ANOVA on a transformation of the response variable.

- Binomial test: Binomial test is an exact test of the statistical significance of deviations from a theoretically expected distribution of observations into two categories.

- Independent sample t Test: The independent samples *t*-test is used when two separate sets of independent and identically distributed samples are obtained, one from each of the two populations being compared.

- One Way ANOVA: In statistics, one way analysis of variance is a technique that can be used to compare means of two or more samples using the F distribution.

- Post Hoc Test for Multiple Comparison: ANOVA test tells an overall difference between groups, but it does not tell which specific groups differed. Post hoc tests are run to confirm where the differences occurred between groups, when an overall statistically significant difference in group means is shown.

## 4.15. Conclusion

This chapter explained the research methodology used to conduct this study. The research design is discussed in detail along with the presentation of research model specially developed for this study. Various hypotheses set based on the objective of the study is presented. The sample design is discussed in detail and the sample size calculation is also presented with the calculations. The data collection method used in this study is presented with the help of a diagram and explained in detail. Majority of the data is collected through online questionnaire. The questionnaire development and its structure are also explained in detail. The reason for selecting online questionnaire is justified by pointing out the benefits and weaknesses of the online questionnaire. The questionnaire layout is also discussed. The pretest survey was conducted among the online shoppers and research experts and friends. The questionnaires were revised and adjusted according to the opinions and comments made by these people. A pilot study is also conducted among 39 respondents and reliability checked and the result is also presented. Various statistical tools which can be used to analyze the data are also pointed out. The data analysis and its interpretations based on the collected data are presented in the next chapter.

**Reference:**

Arya, P. P., Yesh Pal (2001). *Research methodology in management*. New Delhi: Deep and Deep Publishers Private Limited.

Bhattacharya, D. K. (2004). *Research Methodology*. New Delhi: Excel Books.

Donald, H. Mc Burney (2002). *Research Methodology*. Singapore: Thomson Asia Private Limited.

Kothari & Gourav Garg (2014), Research methodology: Methods and Techniques. New Delhi: New Age International Publishers.

Lackana Leelayouthayotin, (2004). Factors influencing online purchase intention: The case of health food consumers in Thailand. *Doctoral Thesis*, University of Southern Queensland.

Mohan, S., & Elangovan, R. (2007). *Research methodology in Commerce*. New Delhi: Deep and Deep Publishers Private Limited.

Sachdeva, J. K. (2008). *Business Research Methodology*. Mumbai: Himalaya Publishing House.

Varma, R. K., & Gopal Varma (1989). *Research methodology*. New Delhi: Commmon wealth Publishers.

# Chapter 5

# Data Analysis

- **Introduction**
- **Profile of the Respondents**
- **Crosstab Analysis of the Respondents**
- **Place of internet access for making online purchase**
- **Device used to make online shopping**
- **Time required for completing an online purchase**
- **Most popular product and service in online market**
- **Number of online purchases made a year**
- **Kind of technological products purchased online**
- **Delivery period in online shopping**
- **Online spending for buying technological products a year**
- **Future online shopping intention**
- **Online shopping recommendations**
- **Analysis of research construct**

## 5.1 Introduction

In the preceding chapter, theoretical reviews of the concept of online shopping procedure and methods have been narrated. This chapter is exclusively devoted to analyze and discuss the data collected based on the specific objectives that have been formulated to evaluate online shopping habits among consumers of Kerala. For a detailed and in-depth analysis, the present chapter is divided into two parts. Part I and Part II. The first part deals with the analysis of two objectives related with experience and intention of consumers towards online shopping and the influence of various devices used in making online purchase and the second part deals with the analysis of next two objectives related with encouraging and discouraging factors of online shopping and its demographic influence on online buyers.

## Part I

The objectives analyzed and achieved through the first part of this chapter are;

- To analyze the experience and intention of consumers towards online purchase.
- To identify the influence of various devices used in online purchase habits of consumers in Kerala.

To achieve these objectives, this chapter analyzes the demographic characteristics of the online buyers. Crosstab analysis is done to find the interaction effect of various demographic characteristics. Chi-square test is conducted to find the statistical significance at 5% level and the result is interpreted on the basis of the test results. The online experience of consumers is also checked on the basis of online spending habits among e shopping consumers, the period taken to receive delivery of the product bought through online, time taken to complete an online purchase, number of online purchases made in a year and various devices used to make online purchase. Various mathematical and statistical tools like percentage,

crosstab, Chi-square test, mean and standard deviation, robust test of equality of means, binomial test, anova and independent sample t test are used to analyze and interpret the data.

The fourth chapter identified and justified the methodology to be used for the study. The collected data from 384 sample respondents were duly coded and entered in an Excel sheet. This data were imported into SPSS software and the above mentioned statistical tests were done with the help of this software. Various hypothesis were formulated and the results of these tests are interpreted and explained on the basis of these hypothesis.

## 5.2 Demographic Profile of the Sample Respondents

Respondents from the sample survey belong to different demographic profile. Hence, it is relevant and meaningful to evaluate these profiles of the respondents. The demographic profiles have a great influence on the present study.

The variables considered in the present study under demographic profile are listed below.

- Gender
- Age
- Marital status
- Education
- Occupation
- Income
- Place of living
- Area of residence

The above mentioned variables are illustrated with the help of a statistical table.

**Table 5.1**

**Demographical Profile of the Online Buyers**

| Demography | Characteristics | Frequency | Percent |
|---|---|---|---|
| **Gender** | Male | 344 | 89.6 |
| | Female | 40 | 10.4 |
| **Total** | | **384** | **100** |
| **Age (in years)** | 16-25 | 117 | 30.5 |
| | 26-35 | 217 | 56.5 |
| | Above 55 | 50 | 13 |
| **Total** | | **384** | **100** |
| **Marital Status** | Single | 131 | 34.1 |
| | Married | 253 | 65.9 |
| **Total** | | **384** | **100** |
| **Education** | High school | 1 | .3 |
| | +2/Equivalent | 53 | 13.8 |
| | Graduation | 264 | 68.8 |
| | PG | 41 | 10.7 |
| | Others | 25 | 6.5 |
| **Total** | | **384** | **100** |
| **Occupation** | Govt./Public Sector | 58 | 15.1 |
| | Private Sector | 158 | 41.1 |
| | Business | 33 | 8.6 |
| | Student | 105 | 27.3 |
| | Domestic affairs | 9 | 2.3 |
| | NRI | 21 | 5.5 |
| **Total** | | **384** | **100** |
| **Income (per month)** | 20000- 40000 | 216 | 56.3 |
| | 40000- 60000 | 153 | 39.8 |
| | Above 60000 | 15 | 3.9 |
| **Total** | | **384** | **100** |

| Demography | Characteristics | Frequency | Percent |
|---|---|---|---|
| **Place of Living** | North | 128 | 33.3 |
| | Central | 128 | 33.3 |
| | South | 128 | 33.3 |
| **Total** | | **384** | **100** |
| **Residence** | Rural | 148 | 38.5 |
| | Urban | 236 | 61.5 |
| **Total** | | **384** | **100** |

*Source: Survey Data*

### 5.2.1. Gender

The above table shows the important demographic profile and characteristics of the respondents. Respondents were mostly male (89.6%) and only 10.4% females have attended the survey as online shoppers in Kerala. From this statistics, it is clear that compared to female respondents, male respondents is predominant in online shopping of technological products in Kerala.

### 5.2.2. Age

The age wise details of the respondents show that majority of the respondents (87%) in the survey were aged between 16-35 age ranges (30.5% for 16-25 age group and 56.5% for 26-35 age groups). Only 13% of the sample respondents are aged above 35 years. It clearly shows that younger generation of Kerala is more interested in using technological products and buying it through online shopping compared to the older consumers.

### 5.2.3. Marital Status

Majority of the respondents who participated in the survey were Married (65.9%) consumers. Only one third of the respondents (34.1%) were found unmarried.

### 5.2.4 Education

Education wise data of the respondents shows that majority of the online shoppers is highly educated. 86 percent of the respondents are having graduation or above level of education. It indicates that education level of people in Kerala have certain influence on their interest in the purchase of technological products through online shops.

### 5.2.5 Occupation

Occupation wise data shows that in Kerala those who are working in private sector employment is more interested in the purchase of technological products online (41.1%) compared to other occupational segment. The next highest percent of online buyers of technological products are students (27.3%) and Govt. / Public sector employees (15.1%).

### 5.2.6 Income

As per the information received through the survey, it shows that majority of the respondents (56.3%) who buy technological products online are fall under the income group of 20000-40000 and 39.8% of respondents are in 40001-60000 income groups.

### 5.2.7 Place of Living

As mentioned in the methodology chapter, the online buyers of Kerala are classified in to three regions namely, North region, Central region and South region. Respondents are purposefully selected equally from each region at the rate of 128 each.

### 5.2.8 Area of Residence

The survey data reveals that majority of respondents who make online shopping of technological products in Kerala reside in urban area (62%) and the rural respondents are only 38% of the respondents. It is a clear indicator that in Kerala urban respondents are more attracted with the new changes in the marketing and shopping habits and interested in online shopping of technological products.

## 5.3 Crosstab Analysis

Cross tabulation simply means the data tables, which present the results of the entire group of survey respondents as well as results from sub-groups of respondents. Crosstabulation enable us to examine and analyze the relationships within the collected data that might not be readily apparent when analyzing total survey responses.

An attempt is made here to test the relation between various demographic characteristics of the respondents with one another in their influence in online shopping of technological products with the help of crosstabs.

### 5.3.1 Age to Gender

Crosstab analysis is conducted between Gender and Age of respondents to test, whether there is any relation between the age of respondents and their gender in the purchase of Technological products online.

$H_0$ : There is no significant relation between age and gender of respondents in influencing online purchase of technological products.

$H_1$ : There is significant relation between age and gender of respondents in influencing online purchase of technological products.

**Table 5.2**

**Age to Gender Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Age | 16-25 | No. | 100 | 17 | 117 |
| | | % | 85.5% | 14.5% | 100.0% |
| | 25-35 | No. | 196 | 21 | 217 |
| | | % | 90.3% | 9.7% | 100.0% |
| | Above 35 | No. | 48 | 2 | 50 |
| | | % | 96% | 4% | 100.0% |
| Total | | No. | 344 | 40 | 384 |
| | | % | 89.6% | 10.4% | 100.0% |
| Pearson Chi-Square | | Value | df | Significance | |
| | | 4.455 | 2 | .108 | |

*Source: Survey Data*

The above table clearly shows that above 35 year old respondents especially female are not much interested in making their purchase online. It shows that a majority of 217 respondents who shop online come under the age group of 26-35 and out of it 196 are male and only 21 are female. Now it can be concluded that there is some sort of interaction effect between age and gender of the respondents and it has certain influence on purchase decision in online shopping. So male respondents aged between 26 -35 are more interested in online purchase of technological products in Kerala compared to other age groups and females. Chi square test is conducted to check whether this difference is significant or not.

The chi square test result shows that the P value (.108) is greater than 5% level of significance which means that the difference is not significant. Hence the null hypothesis that there is no significant relation in gender based on their age level on inducing them to go for online purchase of technological products is accepted. As the levels of age vary the tendency to go for online purchase also changes irrespective of the gender difference.

### 5.3.2. Gender and Marital Status.

The relation between gender and marital status of respondents in relation to online purchase of technological products is studied by formulating the following hypothesis. Table 5.3 given below shows the details of the analysis.

$H_0$: There is no significant relation between gender and marital status of the respondents in influencing online purchase of technological products

$H_1$: There is significant relation between gender and marital status of the respondents in influencing online purchase of technological products

**Table 5.3**

**Gender to Marital Status Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Marital Status | Single | Number | 118 | 13 | 131 |
| | | % within marital status | 90.1% | 9.9% | 100.0% |
| | Married | Number | 226 | 27 | 253 |
| | | % within marital status | 89.3% | 10.7% | 100.0% |
| Total | | Number | 344 | 40 | 384 |
| | | % within marital status | 89.6% | 10.4% | 100.0% |
| Pearson Chi-Square | | Value | df | Significance | |
| | | .052[a] | 1 | .820 | |

*Source: Survey Data*

The above gender to marital status wise table shows that out of the total 384 respondents 34% are unmarried and 66% are married. Out of the total 131 unmarried online buyers of technological products in Kerala, 90.1% are male and only 9.9% are women. Again out of the 253 married respondents, 226 (89.3%) are men and only 27 which are 10.7% are women. From the interaction effect between gender to marital status, the study reveals that both married and unmarried male respondents in Kerala are showing more interest in making online purchase of technological products. From the above table it is clear that married male respondents (58.85%) in Kerala are more interested in online purchase of technological products.

The chi square test result shows that the 'P' value is greater than 5% which means that the difference is not significant. Hence the null hypothesis that there is no significant relation in gender based on their marital status on inducing them to go for online purchase of technological products is accepted. Both the married male and female are more interested in online purchase compared to the unmarried male and female respondents.

### 5.3.3. Gender and Education.

Does the education level of the respondent have any influence on the intention of online purchase of technological products on the basis of their gender? The next attempt is to find the relation between gender to education of the respondents in their online purchase intention. The level of education is classified as High school, +2/ Equivalent, Graduation, Post Graduation and others for to get a more clear result. The following hypothesis has been formulated in this regard.

$H_0$: There is no significant relation between the gender and education of the respondents in influencing online purchase of technological products.

$H_1$: There is significant relation between the gender and education of the respondents in influencing online purchase of technological products.

**Table 5.4**

**Gender to Education Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Education | High school | Number | 1 | 0 | 1 |
| | | % Education | 100.0% | 0.0% | 100.0% |
| | +2/ Equivalent | Number | 50 | 3 | 53 |
| | | % Education | 94.3% | 5.7% | 100.0% |
| | Graduation | Number | 235 | 29 | 264 |
| | | % Education | 89.0% | 11.0% | 100.0% |
| | PG | Number | 37 | 4 | 41 |
| | | % Education | 90.2% | 9.8% | 100.0% |
| | Other | Number | 21 | 4 | 25 |
| | | % Education | 84.0% | 16.0% | 100.0% |
| Total | | Number | 344 | 40 | 384 |
| | | % Education | 89.6% | 10.4% | 100.0% |
| **Pearson Chi-Square** | | Value | df | Significance | |
| | | 2.347[a] | 4 | .672 | |

*Source: Survey Data*

The above table shows that the level of education has definite influence on the online purchase intention of e shopping consumers in Kerala. Out of the total 344 male respondents, 293 respondents (85%) and out of the 40 female respondents 37 (92.5%) have more than +2 or equivalent level education. To be more precise the table also shows that on both genders, 235 male respondents (61% of the total male respondents) and 29 female respondents (72.5% of the total female respondents) are graduates.

The chi square test result shows that the P value is greater than 5% which means that the difference is not significant. Hence the null hypothesis that there is no significant relation in gender based on their level of education on inducing them to go for online purchase of technological products is accepted. As the level of education increases the tendency to go for online purchase also increases irrespective of the gender difference.

### 5.3.4. Gender and Occupation

The relationship between gender and occupation of the respondents is analyzed in order to find its influence on the intention of online purchase. For the purpose of the research, the occupation of the respondents has been classified as Govt. /public sector employment, private employment, business, student, Domestic affairs and NRI's. The following hypotheses has been formulated; and the result is shown in table 5.5

$H_0$: There is no significant relation between gender and occupation of respondents in influencing online purchase of technological products.

$H_1$: There is significant relation between gender and occupation of respondents in influencing online purchase of technological products.

**Table 5.5**

**Gender to Occupation Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Occupation | Govt./ Public | Number | 53 | 5 | 58 |
| | | % within Occupation | 91.4% | 8.6% | 100.0% |
| | Private | Number | 148 | 10 | 158 |
| | | % within Occupation | 93.7% | 6.3% | 100.0% |
| | Business | Number | 32 | 1 | 33 |
| | | % within Occupation | 97.0% | 3.0% | 100.0% |
| | Student | Number | 90 | 15 | 105 |
| | | % within Occupation | 85.7% | 14.3% | 100.0% |
| | Domestic affairs | Number | 0 | 9 | 9 |
| | | % within Occupation | 0.0% | 100.0% | 100.0% |
| | NRI | Number | 21 | 0 | 21 |
| | | % within Occupation | 100.0% | 0.0% | 100.0% |
| Total | | Number | 344 | 40 | 384 |
| | | % within Occupation | 89.6% | 10.4% | 100.0% |
| **Pearson Chi-Square** | | Value | df | Significance | |
| | | 86.485[a] | 5 | .000 | |

*Source: Survey Data*

The table shows that out of the total 344 male respondents 148 (43%) and out of the 40 female respondent 10 (25%) are private sector employees. In combined, 158 respondents which are 41% of the total respondents are working in private sector. Students come second largest segment of online purchasers in Kerala. 27.3% of the respondent is students. Out of total female online buyers, it is seen that a major part 37.5 percent are students. From the table it is also clear that in all categories of employment, male respondents have significant dominance in online purchase in Kerala.

When the data is further analyzed with chi square test, it is seen that the chi square value is less than 5% which means the difference is highly significant and

there by the null hypothesis is rejected. It means that the occupation of respondents and their gender have significant relation towards the interest in online purchase of technological products.

### 5.3.5. Gender and Income.

A further analysis of the relation between gender and income on the online purchase intention of technological products is made. Both personal and family income of the respondents is considered here. For the purpose of the research, income is classified in three categories ranging from Rs. 20000 to Rs. 60000 and above. The following hypothesis has been formulated.

$H_0$: There is no significant relation between gender and income of respondents in influencing online purchase of technological products.

$H_1$: There is significant relation between gender and income of respondents in influencing online purchase of technological products.

**Table 5.6**

**Gender to Income Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Income | 20000-40000 | Number | 193 | 23 | 216 |
| | | % within Income | 89.4% | 10.6% | 100.0% |
| | 40001-60000 | Number | 139 | 14 | 153 |
| | | % within Income | 90.8% | 9.2% | 100.0% |
| | Above 60000 | Number | 12 | 3 | 15 |
| | | % within Income | 80.0% | 20.0% | 100.0% |
| Total | | Number | 344 | 40 | 384 |
| | | % within Income | 89.6% | 10.4% | 100.0% |
| **Pearson Chi-Square** | | Value | df | Significance | |
| | | 1.752[a] | 2 | .417 | |

*Source: Survey Data*

From the above table, it can be observed that out of 344 male respondents a majority of 193 respondents (56%), out of 40 female respondents a majority of 23 respondents (57.5%) come under the income range of Rs. 20000 – 40000 per month. A total of 139 male and 14 female respondents which are 40% of the total respondents come under the income range of Rs. 40001 – Rs. 60000 per month. Only 12 male and 3 female which are 4% of the total respondents come under the income range of Rs. 60000 and above.

The chi square test result shows that the P value is greater than 5% which means that the difference is not significant. Hence the null hypothesis that there is no significant relation in gender based on their income on inducing them to go for online purchase of technological products is accepted.

### 5.3.6. Gender and Place of living.

A further analysis is made to study the habit of online purchase on the basis of gender and place of living of respondents. The research area is classified in to three regions namely North, Central part of Kerala and South. Gender wise analysis is done in each regions by preparing a cross table and the following hypothesis are tested. The results are shown in table 5.7.

$H_0$: There is no significant relation between gender and place of living of respondents in influencing online purchase of technological products.

$H_1$: There is significant relation between gender and place of living of respondents in influencing online purchase of technological products.

**Table 5.7**

**Gender to Place of Living Analysis**

| | | | Gender | | Total |
|---|---|---|---|---|---|
| | | | Male | Female | |
| Place of Living | North | Number | 117 | 11 | 128 |
| | | % within gender | 91.4 | 8.6 | 100.0% |
| | Central part of Kerala | Number | 109 | 19 | 128 |
| | | % within gender | 85 | 15 | 100.0% |
| | South | Number | 118 | 10 | 128 |
| | | % within gender | 92 | 8 | 100.0% |
| Total | | Number | 344 | 40 | 384 |
| | | % within place of living | 89.6% | 10.4% | 100.0% |
| Pearson Chi-Square | | Value | df | Significance | |
| | | 2.83 | 2 | .243 | |

*Source: Survey Data*

The above table shows that out of 344 male respondents, 117 respondents are from north region, 109 are from central region and 118 are from south region. Out of the 40 female respondents 11 are from north region, 19 are from central region and 10 are from south region. It shows that male respondents are dominating in all three regions in case of online purchase of technological products in Kerala. But it also shows that, within regions, there is slight variation among the male and female online buyers in their proportions. The data is again checked with chi square test to see whether there is any statistical significance in this difference.

The chi square test result shows that the P value is greater than 5% which means that the difference is not significant. Hence the null hypothesis that there is no significant relation in gender based on their place of living on inducing them to go for online purchase of technological products is accepted. Both male and female respondents have shown same level of interest towards online purchase irrespective of their place of living.

## 5.4. Properties of Online Shopping

A study about the various properties and characteristics related to the online shopping is made to analyze the intention and online shopping experience of the consumers. The areas considered in the present study related to online shopping experience are pointed out below.

- Place of internet access for making online purchase
- Device used by the consumers to make online shopping
- Time required for completing an online purchase
- Most popular product and service in online market other than technological products
- Number of online purchases made a year
- Kind of technological products purchased online
- Delivery period in online shopping
- Online spending for buying technological products a year
- Future online shopping intention
- Online shopping recommendations

### 5.4.1. Place of Internet Access for making Online Purchase.

The technological development in Kerala is very high compared to any other states of India. Kerala is having the highest e literacy rate in India. Significant amount of people have awareness about the usage of computer and internet. Majority of the people in Kerala are using mobile phones having internet connection. They are having computer and internet connection at their home and workplaces also. Information technology is a part of the curriculum in the state. The educational institutions are also providing internet connected computer labs for their students.

It means that consumers in Kerala have chances for making online purchase from anywhere. As part of the study an attempt is made to find from where the respondents are using the internet for making their online purchase.

**Table 5.8**

**Place of Internet Access**

| | | Frequency | Percent |
|---|---|---|---|
| Valid | Home/ personal place | 270 | 70.3 |
| | Workplace | 109 | 28.4 |
| | Educational Institution | 5 | 1.3 |
| | Total | 384 | 100.0 |

*Source: Survey Data.*

The above table 5.8 shows that 70.3% percent of the respondents are using internet from their home/ personal place for making online purchase. Only 28.4% are using internet from their work place and 1.3 percent of respondents are from their educational institutions for purchasing online.

#### 5.4.1.1 Relation between Occupation and Place of Online Purchase

Further analysis is made to study whether there is any relation between the occupation of online buyers and the place of online purchase. The following hypothesis is set to examine this relation. The result is shown in table 5.9.

$H_0$: There is no significant relation between occupation of online buyers and place of online purchase of technological products.

$H_1$: There is significant relation between occupation of online buyers and place of online purchase of technological products.

**Table 5.9**

**Occupation and Place of Purchase Analysis**

| | | Occupation | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | Govt. | Private | Business | Student | Domestic affairs | NRI | |
| Place of purchase | Home | 55 | 81 | 12 | 100 | 9 | 13 | 270 |
| | Work place | 3 | 77 | 21 | 0 | 0 | 8 | 109 |
| | Other | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Total | | 58 | 158 | 33 | 105 | 9 | 21 | 384 |
| **Pearson Chi-Square** | | | Value | | Df | Significance | | |
| | | | 123.983[a] | | 10 | .000 | | |

*Source: Survey Data.*

The above table shows that the govt. / public sector employees, students, house wives and NRIs are making most of their online purchase from their homes. The business people are making most of their online purchase from their work place. But in the case of private sector employees, they are making their online purchase from both home and workplace almost in the same manner.

The result is checked with chi square test to know whether the difference is significant or not. Here the chi square value is less than 5 percent, which shows that the difference is highly significant and there by the null hypothesis is rejected. It means that place of online purchase and the occupation of online buyers has significant relation. Thus, the test result throws light on the fact that based on the nature of jobs; the respondents are making their online purchase from different locations.

### 5.4.2. Device Used to Access the Internet/ Purchase Online

As mentioned above, the people of Kerala are highly technologically updated. Information technology is part of the school curriculum in Kerala. So the students are very much in touch with the computer and internet. Majority of the people of Kerala have mobile phones especially smartphones. Significant numbers

of homes and students have either desktop or laptop. The usage of internet is increasing among the people. As the network providers introduce flexible data packs for internet, more and more consumers are attracted towards taking internet connection.

So it will be interesting to check which device is used by the online shoppers of Kerala more for accessing the internet and making their online purchase. Three options of device (Desktop, Laptop and Smartphone) have been given to the respondents to comment on it.

**Table 5.10**

**Device Used to Access the Internet/Purchase Online**

| | | Frequency | Percent |
|---|---|---|---|
| Valid | Desktop computer | 30 | 7.8 |
| | Laptop | 117 | 30.5 |
| | Smartphone | 237 | 61.7 |
| | Total | 384 | 100.0 |

*Source: Survey Data.*

The above table 5.10 shows that among the online buyers in Kerala, 7.8% respondents are using their desktop computers, 30.5% respondents are using their Laptop and a majority of 61.7% are using their Smartphone for accessing internet and making online purchase.

This data is further checked with various demographic characteristics of the respondents to know whether there is any significant relation among them in using various devices for making online purchase. Cross tabs are used to analyze the data and Chi-Square test is used to check the significance of the results.

### 5.4.2.1 Relation Between Gender and Device Used to Purchase Online

The data is further analyzed to check whether the device used to make online purchase has any significant relation between the male and female online buyers of technological products in Kerala. The following hypothesis are formulated.

$H_0$: There is no significant relation between gender of respondents and device used to make online purchase of technological products.

$H_1$: There is significant relation between gender of respondents and device used to make online purchase of technological products.

**Table 5.11**

**Gender to Device Used to Purchase Online**

| | | Gender | | Total |
|---|---|---|---|---|
| | | Male | Female | |
| Device | Desktop | 25 | 5 | 30 |
| | Laptop | 106 | 11 | 117 |
| | Smartphone | 213 | 24 | 237 |
| Total | | 344 | 40 | 384 |
| **Pearson Chi-Square** | Value | Df | Significance | |
| | 1.406[a] | 2 | .495 | |

*Source: Survey Data.*

The gender wise cross tab of device used to make online purchase also shows that both male and female respondents are using smart phone more for accessing the internet and making online purchase. The chi- square value is also well above 5 percent level of significance. Hence the null hypothesis that there is no significant relation among the gender of the online buyers in using the device to make online purchase is accepted.

### 5.4.2.2 Relation Between Age and Device Used for Online Purchase

An attempt is made to learn whether the device used to make online purchase have any significant relation with the age of the online buyers of technological products in Kerala. The following hypothesis is formulated to examine this relation.

$H_0$: There is no significant relation between age of online buyers and device used to make online purchase of technological products.

$H_1$: There is significant relation between age of online buyers and device used to make online purchase of technological products.

**Table 5.12**

**Age to Device Used to Purchase Online**

| | | Device | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | Desktop | % | Laptop | % | Smartphone | % | |
| Age | 16-25 | 9 | 7.7 | 15 | 12.8 | 93 | 79.5 | 117 |
| | 25-35 | 15 | 7 | 76 | 35 | 126 | 58 | 217 |
| | >35 | 6 | 12 | 26 | 52 | 18 | 36 | 50 |
| Total | | 30 | 7.8 | 117 | 30.5 | 237 | 61.7 | 384 |
| Pearson Chi-Square | | | | Value | Df | Significance | | |
| | | | | 34.208[a] | 4 | .000 | | |

*Source: Survey Data.*

The above table 5.12 shows that, in between the age groups, out of the respondents aged in between 25-35, a majority of 126 respondents (58%) are using smart phones for internet access and online purchase. 35% of respondents are using laptops and only 7% are using desktop. But among the age groups, when we take the percentage of respondents who buy online, out of the 117 online buyers of 16-25 age groups 79.5% are using smartphones to make online purchase. Only 20.5% are using either laptop or desktop.

It also shows that, in the case of above 35 year old respondents, out of 50 online buyers, a majority of 26 (52%) are using their Laptop for making online purchase. 12% of the online buyers are also using desktop for the same purpose. The usage of smart phones among this age group for making online purchase is only 36%.

The result is again checked with chi square test to know whether this difference is statistically significant or not. Here the chi square value which is less than 5% shows that the difference is highly significant and there by the null hypothesis is rejected. It means that there is significant relation between the age of

the online buyers and the device used to make online purchase among the e shopping consumers in Kerala. Below 35 years age groups are using smartphones more to make online purchase, but above 35 years online consumers in Kerala are using laptop and desktop compared to smartphones to make online purchase of technological products.

### 5.4.2.3 Relation Between Occupation and Device Used to Shop Online

The data is further analyzed to check whether there is any relation between the occupation of the respondents and the device used by them to purchase online for technological products in Kerala. The following hypothesis is formulated to examine the relation,

$H_0$: There is no significant relation between occupation of online buyers and device used to make online purchase of technological products.

$H_1$: There is significant relation between occupation of online buyers and device used to make online purchase of technological products.

**Table 5.13**

**Occupation to Device Used to Purchase Online**

| | | Occupation | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | | Govt. | Private | Business | Student | House wives | NRI's | |
| Device | Desktop | 12 | 4 | 4 | 8 | 2 | 0 | 30 |
| | Laptop | 27 | 56 | 15 | 15 | 0 | 4 | 117 |
| | Smartphone | 19 | 98 | 14 | 82 | 7 | 17 | 237 |
| Total | | 58 | 158 | 33 | 105 | 9 | 21 | 384 |

*Source: Survey Data.*

The above crosstab 5.13 shows that, irrespective of occupational difference, the online buyers are not using desktop so often for making online purchase, except government employees. Out of the total 30 online buyers who use desktop, majority are government employees. But compared to the three devices, a majority of 27 government employees are using laptop more for making online purchase. Out of the

58 government employees who buy technological products online, only 19 are using smartphones.

But the private sector employees, respondents working abroad and students are using smart phones more for making online purchase. Out of the 158 private sector employees, majority of 98 online buyers, out of 105 student respondents, majority of 82 online buyers, and out of 21 NRI's, majority of 17 online buyers are using smartphones to make online purchase.

The business people are using laptop and smart phones almost in the same manner for making online purchase. Out of the 33 business class respondents, 15 online buyers are using laptop and 14 are using smartphones to make online purchase. Laptop is getting a slight advantage over smartphones in case of business class respondents. The result is again checked with chi square test to know whether the difference is statistically significant or not.

**Table 5.14**

**Chi-Square Test**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 60.150[a] | 10 | .000 |
| N of Valid Cases | 384 | | |

*Source: Survey Data.*

Here the chi square value is .000 which is well below 5% level of significance and there by shows that the difference is highly significant and there by the null hypothesis is rejected. It means that the device used by the respondents to access the internet and making online purchase and their occupation has significant relation. So this result indicates that, based on the nature of jobs the respondents are using different devices to shop online.

### 5.4.2.4 Relation between Place of Living and Device Used to Shop Online

The data is further analyzed to study whether there is any relation between the place of living of the respondents and the device used by them to make online purchase of technological products in Kerala. The following hypothesis have been formulated to examine this relation,

$H_0$: There is no significant relation between place of living of online buyers and device used to make online purchase.

$H_1$: There is significant relation between place of living of online buyers and device used to make online purchase.

**Table 5.15**

**Place of Living to Device Used to Purchase Online**

| | | Place of living | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | North | % | Central | % | South | % | Total |
| Device | Desktop | 6 | 4.7 | 16 | 12.5 | 8 | 6.2 | 30 |
| | Laptop | 27 | 21.1 | 40 | 31.2 | 50 | 39.1 | 117 |
| | Smartphone | 95 | 74.2 | 72 | 56.3 | 70 | 54.7 | 237 |
| Total | | 128 | 100 | 128 | 100 | 128 | 100 | 384 |
| Pearson Chi-Square | | Value | | Df | | Significance | | |
| | | 20.468[a] | | 4 | | .000 | | |

*Source: Survey Data.*

The above crosstab 5.15 shows that majority of respondents living in the north, central and south regions of the state are using smart phones more to purchase online. But the percentages of respondents region wise shows that 74.2% of the online buyers who live in the northern region of Kerala are using smartphones to make online purchase. It is only 21.1% in the case of laptop and 4.7% in the case of desktop. But in the central part of Kerala and southern region almost 50% of the online buyers are using either desktop or laptop for the same. In the central region,

even though majority of 56.3% are using smartphones for making online purchase, a considerable amount of 12.5% are using desktop and 31.2% are using laptop for the same purpose. In the southern region, a majority of 54.7% of respondents are using smartphones to make online purchase. Still a considerable amount of 39.1% is using laptop for the same.

Chi square test is conducted to check whether this difference is statistically significant or not. Here the chi square value is .000 which shows that the difference is highly significant and there by the null hypothesis is rejected. It means that the device used by the respondents to access the internet and making online purchase and their place of living has significant relation. The region wise data of online buyers shows that, in the northern region of Kerala, online buyers are using smartphones more to make online purchase but in the central region and southern region, online buyers are using other devices also almost in the same manner.

#### 5.4.2.5 Relation between Area of Residence and Device Used to Shop Online

The study is made to know whether there is any relation between the area of residence of respondents and device used by them to purchase online for technological products in Kerala. The following hypothesis have been formulated to examine the relation,

$H_0$: There is no significant relation between area of residence of online buyers and device used to make online purchase of technological products

$H_1$: There is significant relation between area of residence of online buyers and device used to make online purchase of technological products

**Table 5.16**

**Area of Residence to Device Used to Purchase Online**

| | | Area of Residence | | | | |
|---|---|---|---|---|---|---|
| | | Rural | % | Urban | % | Total |
| Device | Desktop | 10 | 6.75 | 20 | 8.48 | 30 |
| | Laptop | 29 | 19.60 | 88 | 37.28 | 117 |
| | Smartphone | 109 | 73.65 | 128 | 54.24 | 237 |
| Total | | 148 | 100 | 236 | 100 | 384 |
| Pearson Chi-Square | | Value | Df | Significance | | |
| | | 15.243[a] | 2 | .000 | | |

*Source: Survey Data.*

The above crosstab 5.16 shows that both the rural and urban respondents are using smart phones more to purchase online. But the percentage of the area wise respondents, it shows that 73.65% of rural people are using smart phones while it is only 54.24% in case of the urban people. While 37.28% of the urban respondents are using laptop, it is only 19.6% for rural online buyers. Only 8.48% of urban respondents and 6.75% of rural respondents are using desktop for making online purchase.

The chi square test is done to check whether this difference is statistically significant or not. Here the chi square value is .000 which shows that the difference is highly significant and there by the null hypothesis is rejected. It means that the device used by the respondents to access the internet and making online purchase and area of residence has significant relation. The respondents who live in rural and urban area are significantly different in using different devices for making their online purchase. The rural online buyers are using smartphones more compared to urban consumers of technological products. In the urban areas, considerable amount of consumers are using laptop and desktop for making online purchase.

### 5.4.3. Time Required for Completing an Online Purchase

It is found in the literature that, one of the major advantages of online purchase compared to the traditional purchase, is time saving. It will be interesting to know, in online shopping procedure, how much time is taken to complete the transaction by an ordinary online buyer. Various demographic factors like gender, age, place of living and area of residence of the online buyers of Kerala with time required for them to complete an online purchase is studied here. The respondents are asked to write the time in hour's starting from ½ hrs, 1, 1.5, 2 etc, in response to an open ended question. The following hypothesis has been formulated for this purpose.

1. $H_0$: There is no significant relation between gender of online buyers with time required to complete an online purchase.

   $H_1$: There is significant relation between gender of online buyers with time required to complete an online purchase.

2. $H_0$: There is no significant relation between places of living of online buyers with time required for completing an online purchase.

   $H_1$: There is significant relation between places of living of online buyers with time required for completing an online purchase.

3. $H_0$: There is no significant relation between area of residence of online buyers with time required for completing an online purchase.

   $H_1$: There is significant relation between area of residence of online buyers with time required for completing an online purchase.

4. $H_0$: There is no significant relation between age of online buyers with time required for completing an online purchase.

   $H_1$: There is significant relation between age of online buyers with time required for completing an online purchase.

**Table 5.17**

**Time Required for Completing an Online Purchase**

| Demographic factors | | N | Mean | Std. Deviation |
|---|---|---|---|---|
| Gender | Male | 344 | .567 | .1704 |
| | Female | 40 | .638 | .2261 |
| | Total | 384 | .574 | .1780 |
| Place of Living | North | 128 | .576 | .1800 |
| | Central Kerala | 128 | .536 | .1304 |
| | South | 128 | .605 | .2042 |
| | Total | 384 | .574 | .1780 |
| Area of Residence | Rural | 148 | .578 | .1818 |
| | Urban | 236 | .572 | .1760 |
| | Total | 384 | .574 | .1780 |
| Age | 16-25 | 117 | .543 | .1404 |
| | 25-35 | 217 | .555 | .1572 |
| | >35 | 50 | .730 | .2517 |
| | Total | 384 | .574 | .1780 |

*Source: Survey Data.*

The above descriptive table 5.17 shows that the total mean value of the entire respondents is .574 which means that just above half an hour is required for the online buyers to complete an online purchase. The mean value of male respondents is .567 which is less than the mean value of the female respondents .638. It means that the female respondents are taking more time to complete an online purchase compared to the male respondents.

**Table 5.18**

**Robust Tests of Equality of Means**

| Time required for completing an online purchase (in Hrs) for Gender. | | | | |
|---|---|---|---|---|
| | Statistic[a] | df1 | df2 | Sig. |
| Brown-Forsythe | 5.166 | 1 | 41.092 | .028 |

*Source: Survey Data.*

The result shows the p value less than 5%, which means that the relation is significant and the null hypothesis have to be rejected. The time required for completing an online purchase by women is significantly high compared to male respondents.

Comparing the mean value of time required for completing an online purchase with the place of living of the respondents, it is seen that online buyers of Central part of Kerala are taking least .536 hrs and people of south region are taking the most .605 hrs. The respondents of north region are taking .576 hrs to complete an online purchase. Anova test is done to check the significance of the mean difference among the place of living of the respondents.

**Table 5.19- ANOVA**

| Time required for completing an online purchase (in Hrs) for place of living | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .277 | 2 | .139 | 4.458 | .012 |
| Within Groups | 11.857 | 381 | .031 | | |
| Total | 12.135 | 383 | | | |

*Source: Survey Data.*

The ANOVA result shows that the p value .012 which is well less than 5% level of significance. It means that the relation is significant and hence the null

hypothesis is rejected. The time required for completing an online purchase by the online buyers of north, central and south regions are significantly different. The online buyers of central part of Kerala are taking a lesser time compared to the online buyers of southern and northern regions of Kerala.

The above table 5.17 also reveals that based on the area of residents of the respondents, the rural people are taking more time (.541) to complete an online purchase compared to the respondents of urban area (.515).

The Robust test of equality of means is conducted to find whether this difference is statistically significant or not.

**Table 5.20**

**Robust Tests of Equality of Means**

| Time required to complete an online purchase (in Hrs) for Area of Residence | | | | |
|---|---|---|---|---|
| | Statistic[a] | df1 | df2 | Sig. |
| Brown-Forsythe | 4.201 | 1 | 218.639 | .042 |

*Source: Survey Data.*

Here also, as the p value .042 is less than 5% level of significance which means that the difference in the mean value of rural and urban respondents is statistically significant and can be concluded that the rural people who are purchasing online are taking more time to complete their purchase compared to the online buyers of urban part of Kerala.

The age wise classification of time required for completing an online purchase, the table 5.17 shows that the mean value of 16-25 and 25-35 age groups are .543 and .555 respectively. But the above 35 age group shows a high mean value of .730. It means that the higher age groups are taking more time for completing an online purchase compared to the younger generation. Anova test is done to check the statistical significance of mean difference among different age groups of the respondents.

**Table 5.21- ANOVA**

| Time required for completing an online purchase (in Hrs) for different age groups | | | | | |
|---|---|---|---|---|---|
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 1.407 | 2 | .704 | 24.986 | .000 |
| Within Groups | 10.728 | 381 | .028 | | |
| Total | 12.135 | 383 | | | |

*Source: Survey Data.*

The data is again checked with one way ANOVA to see whether this mean difference is statistically significant or not. The result shows that the p value .000 is well less than 5% level of significance and it can be concluded that the younger generation of online buyers are taking lesser time compared to the older generation in completing online purchase of technological products.

### 5.4.4. Most Popular Product/ Service in Online Market

The products in the online shopping sites are classified and displayed under different categories just like in the traditional bricks and mortar shops. Consumers can directly go for his choice of category of products. It will help the consumers to save their time in searching the product in the entire site. The current study is conducted only among the online buyers of technological products in Kerala. It will be interesting to find what are the various products or services, the online buyers are interested to purchase in addition to technological products. The respondents are asked to tick as many categories of products in addition to the technological products; they bought from various online shopping sites.

**Table 5.22**

**Most Popular Product/ Services in Online Market**

| Product/ Services | Number | % | Rank |
|---|---|---|---|
| Educational products | 17 | 7.3 | 4 |
| Banking/financial services/insurance | 29 | 12.6 | 3 |
| Clothes/fashion products | 103 | 44 | 1 |
| Foods or medicines | 2 | .1 | 5 |
| Travel / hotel arrangements | 84 | 36 | 2 |
| Total | 235 | 100 | |

*Source: Survey Data.*

Out of 384 respondents, only 235 respondents have bought some of the above mentioned products or services through the internet. Rank is given from 1 to 5 based on the percentage of the respondents. The above table (5.22) shows that in addition to the technological products majority of the respondents (44%) are shown interest in clothes/fashion products. Travel and hotel services come the next priority for 36% respondents. Banking and financial services have been used only by 12.6% respondents and only 7.3% bought educational products. Food and medicinal products are very rarely bought products through the internet.

### 5.4.5. Number of Online Purchases a Year

The online shopping habits among the consumers in Kerala are increasing at an explosive rate. An attempt is made to study how many times an online buyer is purchasing through online shops during a year irrespective of the nature of the product. The respondents are asked to tick from three options, 1-2 times a year, 3-5 times a year and more than 5 times a year.

It is found in the table 5.23 that majority of the respondents making online purchase 3-5 times a year. Further analysis is made to see whether any relation exists between demographic factors of respondents and number of online purchase made in a year.

### 5.4.5.1. Relation between Age and Number of Online Purchase a Year

Further analysis is made to see whether age of online buyers has any relation with the number of online purchases made in a year.

$H_0$: There is no significant relation between age of online buyers with number of online purchases a year.

$H_1$: There is significant relation between age of online buyers with number of online purchases a year.

**Table 5.23**

**Age to Online Purchases a Year**

| | | | Online Purchase (No. of Times) | | | Total |
|---|---|---|---|---|---|---|
| | | | 1-2 | 3-5 | >5 | |
| Age | 16-25 | Number | 27 | 71 | 19 | 117 |
| | | % within Age | 23.1% | 60.7% | 16.2% | 100% |
| | 25-35 | Number | 73 | 126 | 18 | 217 |
| | | % within Age | 33.6% | 58.1% | 8.3% | 100% |
| | >35 | Number | 17 | 30 | 3 | 50 |
| | | % within Age | 34% | 60% | 6% | 100% |
| Total | | Number | 117 | 227 | 40 | 384 |
| | | % within purchase | 30.5% | 59.1% | 10.4% | 100.0% |

*Source: Survey Data.*

The above table 5.23 shows that 117 respondents (30.5%) have bought through online 1-2 times, 227 respondents (59.1%) have bought 3-5 times and only 40 consumers (10.4%) are bought online more than 5 times a year. This statistics shows that majority of the online buyers in Kerala are still hesitant to buy online so frequently. Almost 90% of the online buyers are purchasing a maximum of up to 5 times a year.

The table also shows the age wise online purchase habits of the respondents. It shows that majority of the respondents are aged in between 25-35 and among them 126 (58.1%) are buying online 3-5 times which is the highest, 73 respondents (33.6%) are buying online 1-2 times and 18 respondents (8.3%) are buying more than 5 times a year. Among the 117 respondents aged in between 16-25, 71 (60.7%) are buying online 3-5 times, 27 (23.1%) are buying 1-2 times and 19 (16.2%) are buying more than 5 times a year. Only 50 respondents are aged above 35 years and among them majority of 30 respondents (60%) are buying online 3-5 times a year.

A further analysis of the data shows that out of 40 online consumers 37 are aged below 35 years. So with this data, it can be concluded that up to 5 purchases a year there is no notable difference among the age groups but for more than 5 times purchase a year, the younger generation have the tendency of purchasing online more times a year.

The data is further analyzed with the help of a Chi-Square test to find whether this difference in the number of online purchases a year based on the age of the respondents has any statistical significance or not.

**Table 5.24**

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 8.797[a] | 4 | .066 |
| N of Valid Cases | 384 | | |

*Source: Survey Data.*

The chi square test reveals that the p value is above 5% level of significance. So the relation in age and number of online purchases a year is not statistically significant. Hence the null hypothesis is accepted. It can be concluded that, there is no significant relation in the interaction effect of age of the respondents and number of online purchases a year among e shopping consumers in Kerala.

### 5.4.5.2. Relation between Place of Living and Number of Online Purchases a Year

To know the living place of the respondents has any significance in the number of online purchase a year, the following hypothesis is formulated and tested with Chi- square test.

$H_0$: There is no significant relation between place of living of online buyers and number of online purchases made during a year.

$H_1$: There is significant relation between place of living of online buyers and number of online purchases made during a year.

**Table 5.25**

**Place of Living with Online Purchases a Year**

| | | | Online Purchase (No. of Times) | | | Total |
|---|---|---|---|---|---|---|
| | | | 1-2 | 3-5 | >5 | |
| Place of Living | North | Number | 55 | 58 | 15 | 128 |
| | | % within number of online purchase | 47% | 25.6% | 37.5% | 33.3% |
| | Central part of Kerala | Number | 16 | 97 | 15 | 128 |
| | | % within number of online purchase | 13.7% | 42.7% | 37.5% | 33.3% |
| | South | Number | 46 | 72 | 10 | 128 |
| | | % within number of online purchase | 39.3% | 31.7% | 25.0% | 33.3% |
| Total | | Number | 117 | 227 | 40 | 384 |
| | | % within number of online purchase | 100.0% | 100.0% | 100.0% | 100.0% |

*Source: Survey Data.*

The above table shows that among the 40 online buyers who have bought more than 5 times a year, 15 (37.5%) are from North region, 15 (37.5%) are from central part of Kerala and 10 (25%) are from Southern region. Among the 227 online

buyers who have bought online 3-5 times a year, 58 (25.6%) are from North, 97 (42.7%) are from central part of Kerala and 72 (31.7%) are from Southern region. Among the 117 online buyers who bought only 1-2 times a year, 55 (47%) are from North, 16 (13.7%) are from central part of Kerala and 46 (39.3%) are from Southern region.

Chi square test is conducted to test whether the place of living has any significance in number of online purchase made during a year.

**Table 5.26**

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 30.487[a] | 4 | .000 |
| N of Valid Cases | 384 | | |

*Source: Survey Data.*

The p value in the Chi square test is .000 which is below 5% level of significance shows that place of living has a significant impact on number of online purchases made during a year. Hence the alternate hypothesis is accepted. There is significant relation between the place of living of the online buyers and the number of online purchases made during a year.

### 5.4.6. Kind of Technological Products Purchased through Online

The technological products are classified in to three groups to measure what kind of technological products are bought more through online. Each respondent has given options to tick as many items among the three groups. The result is checked with binomial test.

**Table 5.27**

**Kind of technological products purchased through online**

| Binomial Test | | | | | | |
|---|---|---|---|---|---|---|
| Kind of Technological products | | Category | N | Observed Prop. | Test Prop. | Exact Sig. (2-tailed) |
| Mobile and Accessories | Group 1 | Yes | 251 | .65 | .50 | .000 |
| | Group 2 | No | 133 | .35 | | |
| | Total | | 384 | 1.00 | | |
| Computer and Accessories | Group 1 | No | 139 | .36 | .50 | .000 |
| | Group 2 | Yes | 245 | .64 | | |
| | Total | | 384 | 1.00 | | |
| House hold/Personal | Group 1 | No | 344 | .90 | .50 | .000 |
| | Group 2 | Yes | 40 | .10 | | |
| | Total | | 384 | 1.00 | | |

*Source: Survey Data.*

The above binomial test table 5.27 shows that out of the 384 online buyers of technological products, 251 (65%) have bought mobile and accessories, 245 (64%) have bought computer and accessories and 40 (10%) are bought house hold/ personal products through online. It shows that mobile, computer and its accessories are the most popular products in the online market among the online buyers of technological products in Kerala. The data is again checked with binomial test and 'P' value of the test result shows that difference in the number of online buyers who are buying different kind of technological products is statistically significant.

### 5.4.7. Number of Online Purchase of Technological Products a Year

In the previous part, an analysis is made on the number of times an online buyer is purchasing from the site irrespective of the product category. Now an attempt is made to study the volume of online purchase of technological products particularly by online buyers based on different demographic factors like their

gender, age, income and area of residence. The mean and std. deviation is found and then it is analyzed with the help of independent t test and one way ANOVA to check the significance of mean relation. The following hypothesis have been set in this regard.

1. $H_0$: There is no significant relation between gender of online buyers with number of online purchase of technological products a year.

   $H_{1:}$ There significant relation between gender of online buyers with number of online purchase of technological products a year.

2. $H_0$: There is no significant relation between age of online buyers with number of online purchase of technological products a year.
   $H_{1:}$ There significant relation between age of online buyers with number of online purchase of technological products a year.

3. $H_0$: There is no significant relation between place of living of online buyers with number of online purchase of technological products a year.

   $H_{1:}$ There significant relation between place of living of online buyers with number of online purchase of technological products a year.

4. $H_0$: There is no significant relation between area of residence of online buyers with number of online purchase of technological products a year.

   $H_{1:}$ There significant relation between area of residence of online buyers with number of online purchase of technological products a year.

**Table 5.28**

**Number of Online Purchase of Technological Products a Year**

| | | N | Mean | Std. Deviation | t/F value | P value | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 344 | 1.91 | 1.029 | 2.290-t | .023 | Significant |
| | Female | 40 | 1.53 | .679 | | | |
| | Total | 384 | 1.87 | 1.004 | | | |

| | | N | Mean | Std. Deviation | t/F value | P value | Sig. |
|---|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 2.06 | 1.177 | 3.233-F | .041 | Significant |
| | 25-35 | 217 | 1.77 | .883 | | | |
| | >35 | 50 | 1.84 | 1.017 | | | |
| | Total | 384 | 1.87 | 1.004 | | | |
| Place of Living | North | 128 | 2.01 | 1.193 | 2.410-F | .091 | *Significant |
| | Central | 128 | 1.75 | .759 | | | |
| | South | 128 | 1.81 | .942 | | | |
| | Total | 384 | 1.87 | 1.004 | | | |
| Area of Residence | Rural | 148 | 1.86 | 1.075 | .020-t | .889 | Not significant |
| | Urban | 236 | 1.87 | .959 | | | |
| | Total | 384 | 1.87 | 1.004 | | | |

*Source: Survey Data.* @10%* level of significance

The above table 5.28 shows that, in the gender wise classification, compared to the mean value of male respondents 1.91, the mean value of female respondents is 1.53 only. It means that male respondent is purchasing technological products more from online shops compared to the females. As per the independent t test, the p value .023 which is below 5% level of significance also shows that statistically the gender wise difference is significant. Hence the alternate hypothesis is accepted here and it can be inferred that volume of online purchase of technological products purchased by male population are significantly high compared to the female buyers.

The number of online purchases of technological products a year on the basis of age wise data (table 5.28) shows that the mean value of 16-25 age groups is the highest 2.06. The mean value of 25-35 and >35 age group is 1.77 and 1.84 respectively. The p value .041 of one way ANOVA test also shows that at 5% level of significance, the relation in the mean value is significant. Based on this, the null hypothesis is rejected and it can be concluded that, among the online buyers of Kerala, 16-25 age groups are buying more technological products a year through online compared to other age groups.

The number of online purchase on the basis of place of living (Table 5.28) shows that the mean value of people in north region is 2.01, central part of Kerala 1.75 and south region 1.81. Based on this result it can be inferred that the people of north region are buying more technological products through online compared to the people of central part of Kerala and southern region. The p value .091 of one way ANOVA test shows that at 10% level of significance, the relation in the mean value of online buyers of different regions is significant. Based on this null hypothesis is rejected and can concluded that, among the online buyers of technological products of Kerala, the peoples of North regions are buying more times a year compared to other regions.

But in the case of area of residence of the respondents, even though there is slight variation in the mean value of rural and urban people, the p value .889 which is well above 10% level of significance shows that the relation is not statistically significant enough to judge that the number of online purchase of technological products a year is different based on the area of residence of the online buyers. Hence the null hypothesis is accepted here.

### 5.4.8. Delivery Period in Online Shopping

Delivery period is one of the important factors influencing consumers in making online purchase. The online consumers are always concerned about the delivery period of the product, especially for technological products. In the case of traditional shopping the products are reaching in the hands of the consumers immediately after the purchase. But in online shopping, after completing the purchase, normally it will take a few days to reach the product in the hands of the consumers. The delivery period will be varying from place to place. Online shopping sites are offering delivery based on the postal pin code of the consumers.

An attempt is made to study the delivery period in online shopping for different consumers based on their place of living and area of residence in Kerala. How long a consumer from rural and urban areas of the state and north, central and south regions of the state have to wait for the delivery of the products purchased through online in normal condition. Respondents are asked to write the number of

days they were waiting to receive the delivery of the product ordered through online in response to an open ended question. The following hypothesis have been formulated to check the demographic characteristics of place of living and area of residence in terms of delivery period.

1. $H_0$: There is no significant relation between place of living of online buyers with delivery period in online purchase of technological products.

   $H_{1:}$ There significant relation between place of living of online buyers with delivery period in online purchase of technological products.

2. $H_0$: There is no significant relation between the area of residence of the online buyers with the delivery period in online purchase of technological products.

   $H_{1:}$ There significant relation between the area of residence of the online buyers with the delivery period in online purchase of technological products.

**Table 5.29- ANOVA**

| Delivery period in online shopping for Technological products | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | N | Mean | Std. Deviation | F/t | P value | Sig. |
| Place of Living | North | 128 | 9.19 | 1.961 | 76.940 | .000 | Significant |
| | Central Kerala | 128 | 7.85 | 1.422 | | | |
| | South | 128 | 6.91 | .936 | | | |
| | Total | 384 | 8.04 | 1.803 | | | |
| Area of Residence | Rural | 148 | 9.22 | 1.749 | 11.924 | .000 | Significant |
| | Urban | 236 | 7.30 | 1.395 | | | |
| | Total | 384 | 8.04 | 1.803 | | | |

*Source: Survey Data.*

The classification of online consumers based on their place of living table 5.29 shows that the mean value of north region is 9.19 which is the highest

compared to the other parts of Kerala. The mean value of Central part of Kerala and southern region is 7.85 and 6.91 respectively. The p value of the data .000 under anova test also indicates that this relation in mean value is highly significant. Hence the alternate hypothesis is accepted. It means that the online buyers of North region have to wait more days compared to the online buyers of other regions. The least delivery period in online shopping in Kerala is at Southern region.

The delivery period in online shopping is again analyzed with the area of residence of the respondents either rural or urban part of Kerala. The mean value of online buyers of rural area is 9.22 and the urban area is 7.30. The data is again checked statistically by using independent sample T test. The p value .000 shows that relation in the delivery period between rural and urban people is significant. Hence the alternate hypothesis is accepted. It means that there significant relation between the area of residence of the online buyers and the delivery period in online purchase of technological products. It can be concluded that the people of rural areas of Kerala have to wait more compared to the online buyers of urban areas, for the delivery of the products that they bought online.

### 5.4.9. Online Spending for Buying Technological Products

The number of online buyers are increasing day by day every year all over the world. New and new online shopping sites are coming in this emerging field of retailing. Almost all big retailers are now starting online sites to serve their consumers and making their shopping more convenient and interesting. The scenario is similar in the case of Kerala market also. But still the consumers are a bit hesitant to spend a huge amount of money through online shops, especially for buying technological products. Here an attempt is made to study the online spending of people of Kerala for buying technological products a year. The gender, income, place of living and area of residence wise data of online buyers of technological products are checked here with the help of Robust Test of Equality of Means. The following hypothesis have been formulated to study this.

1. $H_0$: There is no significant relation between the gender of online buyers with online spending for technological products.

$H_{1:}$ There significant relation between the gender of online buyers with online spending for technological products.

2. $H_0$: There is no significant relation between the incomes of online buyers with online spending for technological products.

   $H_{1:}$ There significant relation between the incomes of online buyers with online spending for technological products.

3. $H_0$: There is no significant relation between the place of living of online buyers with online spending for technological products.

   $H_{1:}$ There significant relation between the place of living of online buyers with online spending for technological products.

4. $H_0$: There is no significant relation between the area of residence of online buyers with online spending for technological products.

   $H_{1:}$ There significant relation between the area of residence of online buyers with online spending for technological products.

**Table 5.30**

**Robust Test of Equality of Means**

| Online spending for Technological products | | | | | | |
|---|---|---|---|---|---|---|
| | | N | Mean | Std. Deviation | P value | Sig. |
| Gender | Male | 344 | 3276.10 | 6871.543 | .001 | Significant |
| | Female | 40 | 1470.00 | 2423.173 | | |
| | Total | 384 | 3087.96 | 6571.895 | | |
| Income | 20000-40000 | 216 | 2874.53 | 5551.634 | .040 | Significant |
| | 40000-60000 | 153 | 2873.71 | 7852.766 | | |
| | Above 60000 | 15 | 8346.67 | 5822.692 | | |
| | Total | 384 | 3087.96 | 6571.895 | | |
| Place of living | North | 145 | 4440.81 | 9068.397 | .004 | Significant |
| | Central | 110 | 2086.27 | 3617.055 | | |

| Online spending for Technological products | | | | | | |
|---|---|---|---|---|---|---|
| | | N | Mean | Std. Deviation | P value | Sig. |
| | South | 129 | 2421.47 | 4710.882 | | |
| | Total | 384 | 3087.96 | 6571.895 | | |
| Area of Residence | Rural | 148 | 3305.05 | 7442.401 | .626 | Not significant |
| | Urban | 236 | 2951.82 | 5974.454 | | |
| | Total | 384 | 3087.96 | 6571.895 | | |

*Source: Survey Data.*

The mean value of male respondents is 3276.10 and the female respondents are 1470.00. The gender wise comparison for online spending shows that the male buyers are spending more in online shopping sites compared to female buyers. The result is again checked with robust tests of equality of means and it shows that the p value is .001 which is below 5% which means that the mean difference is statistically significant. Hence the alternate hypothesis is accepted. The online spending habit has significant difference among the male and female respondent. Male buyers are spending more at online shops in Kerala.

Further study is made to check whether the income of the respondents has any influence on the online spending among the online buyers. The mean value of income group 20000-40000 is 2874.53, 40000-60000 is 2873.71 and Above 60000 is 8346.67. The mean value of different income groups shows that above Rs 60000 income groups have high mean value and are spending more compared to other income groups. The p value as per the Brown-Forsythe test is .040 which is below 5% level of significance reveals that the difference in mean value is significant. Hence the alternate hypothesis is accepted that there is significant relation in the spending habits of different income groups. The data is again checked with Post Hoc Test for multiple comparison.

**Table 5.31**

**Post Hoc Test – Multiple Comparison**

| Income | Income | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 20000-40000 | 40000-60000 | .820 | 687.110 | 1.000 |
| | Above 60000 | -5472.134* | 1736.277 | .005 |
| 40000-60000 | 20000-40000 | -.820 | 687.110 | 1.000 |
| | Above 60000 | -5472.954* | 1759.336 | .006 |
| Above 60000 | 20000-40000 | 5472.134* | 1736.277 | .005 |
| | 40000-60000 | 5472.954* | 1759.336 | .006 |

*Source: Survey Data.*

It shows that the p value is 1.00 for value of 20000-40000 and 40000-60000 income groups which mean that there is no significant relation in the mean value of these income groups. But the mean values of above 60000 income groups of Kerala are significantly differ with other income groups in online spending as the p value .005 and .006 is well below 5% level of significance.

The above table 5.31 shows that in the case of online spending among online buyers of rural and urban residents, even though there is relation in the mean value of rural and urban online buyers, the p value .626 shows that the relation is not significant to judge that there is relation among the rural and urban buyers in their online spending. Hence the null hypothesis is accepted.

## 5.4.10 Next Online Purchase and Recommendation

Further analysis is conducted to study whether the respondents are interested in doing their next purchase of technological products through online and whether they will recommend their friends and relatives to buy online. The respondents were asked, if they need any technological products within next 12 months, do they plan to make their purchase online and will they recommend their friends to buy online. The

response are measured on a five point scale and rated with a score of 5 to 1 for Very Likely to Very Unlikely.

**Table 5.32**

## Next Online Purchase and Recommendation

| Statements | No. of respondents | | | | | Total | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|---|
| | Very likely | Likely | Not sure | Unlikely | Very unlikely | | | |
| Willingness to buy online again | 72 | 226 | 63 | 21 | 2 | 384 | 3.90 | .780 |
| Recommending friends to buy online | 72 | 196 | 80 | 25 | 11 | 384 | 3.76 | .927 |

*Source: Survey Data.*

From the above table 5.32, it is clear that 298 respondents (72 very likely and 226 likely) are showing a positive intention and only 23 respondents (21 unlikely and 2 very unlikely) are showing a negative intention towards purchasing online in future also. 63 respondents are not sure about their future online purchase intention. The mean score 3.90 also shows a positive bend towards the intention of future online purchase of technological products. The table also shows that, majority of 268 respondents (72 very likely and 196 likely) are ready to recommend and only 36 respondents (25 unlikely and 11 very unlikely) are not ready to recommend their friends to purchase online for technological products. 80 respondents are not sure about their opinions towards online purchase recommendation. The mean score 3.76 also shows that the respondents are showing a positive intent to recommend online purchase to their friends.

# Part II

The second part of this chapter analyzes the following objectives of the study.

- To explore the relative importance of factors that encourages or discourages consumers from buying technological products online.
- To analyze the demographic relation among online buyers in considering the influencing factors of e shopping.

Here in this section of the analysis, the collected data has transformed in to a form which was so easy to understand and thereby to interpret the results. As discussed in the earlier chapter, seven research constructs have been developed to measure the influencing factors of online purchase by the consumer of Kerala. 1. Company attribute, 2. Product attributes 3. Perceived risk, 4. Perceived ease of use 5. Perceived usefulness, 6. Customer experience, 7. Personality of the customer.

Separate variables are identified to measure each construct. Each variable under all construct are measured on a five point Likert scale and rated with a score of 5 to 1 for strong agreement to strong disagreement. The descriptive statistics table of all variables under each construct is given below separately and discussed the results in detail.

## 5.5. Descriptive Statistics of Research Constructs

The descriptive statistics shows mean and standard deviation for all variables under each construct. The relative importance of each variable is interpreted on the basis of these results. Later the seven research constructs are analyzed on the basis of demographic characteristics of respondents. Various hypothesis have been set and statistical tools like mean, standard deviation, one way anova, independent sample t test and post hoc test of multiple comparisons are used to interpret the data.

In order to evaluate the results more critical in nature the mean score derived is classified in to 3 groups based on the quartile value**.** Accordingly, mean score less than 3.6 is assumed having low effect, score between 3.6 - 3.7 with moderate effect and score greater than 3.7 is treated to be with high effect in the present study.

### 5.5.1. Company Attribute (CA)

The attitude towards purchasing something is strongly related with the level of information about the company who provides goods and services really matters in marketing of the product. What are the factors actually considered by the consumers about the company before reaching a purchase decision is analyzed in this section. Under this construct company attribute, six variables are measured and interpreted. The respondents had to rate each variable on the basis of their perception towards the merit of the online company. The mean scores are explained on the basis of its value derived.

**Table 5.33**

**Mean and standard Deviation of Items Measuring Company Attributes (CA) in the Model**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Having been operating good business for a long time | Male | 344 | 3.762 | .5020 |
| | | Female | 40 | 3.575 | .5495 |
| | | Total | 384 | 3.742 | .5096 |
| 2 | Having a permanent physical address | Male | 344 | 3.898 | .3873 |
| | | Female | 40 | 3.625 | .5401 |
| | | Total | 384 | 3.870 | .4135 |
| 3 | Being well known to the public | Male | 344 | 3.895 | .3902 |
| | | Female | 40 | 3.800 | .4641 |
| | | Total | 384 | 3.885 | .3989 |
| 4 | Being very well known to myself | Male | 344 | 4.323 | .4682 |
| | | Female | 40 | 4.400 | .4961 |
| | | Total | 384 | 4.331 | .4711 |
| 5 | Having good after sale service | Male | 344 | 3.919 | .3730 |
| | | Female | 40 | 3.800 | .5639 |
| | | Total | 384 | 3.906 | .3979 |
| 6 | Delivering goods at my local place | Male | 344 | 4.468 | .5169 |
| | | Female | 40 | 4.500 | .5064 |
| | | Total | 384 | 4.471 | .5153 |

*Source: Survey Data.*

The above table shows that the mean score of all variables are above 3.7 which reflect a high effect and relevance in the study. Respondents are seriously considering all these variables for valuing the construct company attribute.

The result then indicates a strong level of agreement among the respondents irrespective of their demographic different on each of the variables used under the construct company attribute. The variable, *being very well known to myself* and *Delivering goods at my local place* are having a high mean score of above 4 for both male and female respondents. Both men and women in Kerala are giving highest importance to these variables to induce them to buy technological products online. However the variable *having been operating good business for a long time* derived the lowest mean score of 3.742 which means the company operating its business for a long time is not the main reason for the people to induce them to purchase technological products online.

### 5.5.2. Product Attribute (PA)

Product is one of the most relevant factors in the marketing mix of the company. Consumers are very particular about the features and utilities of the product they wish to buy. There are 9 variables for this construct to measure the purchase of online buyers. The descriptive statistics table is given below.

**Table 5.34**

**Mean and Standard Deviation of Items Measuring Product Attributes (PA) in the Model.**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | The brand name is popular | Male | 344 | 3.826 | .4567 |
| | | Female | 40 | 3.725 | .6789 |
| | | Total | 384 | 3.815 | .4844 |
| 2 | Being the brand name I trusted | Male | 344 | 4.235 | .4249 |
| | | Female | 40 | 4.275 | .4522 |
| | | Total | 384 | 4.240 | .4274 |

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 3 | Being the brand name I have previously used | Male | 344 | 3.991 | .3101 |
| | | Female | 40 | 4.075 | .3499 |
| | | Total | 384 | 4.000 | .3150 |
| 4 | Product offering good value for money | Male | 344 | 4.381 | .4863 |
| | | Female | 40 | 4.550 | .5038 |
| | | Total | 384 | 4.398 | .4902 |
| 5 | Product only available through the internet. | Male | 344 | 2.323 | .6982 |
| | | Female | 40 | 2.250 | .6699 |
| | | Total | 384 | 2.315 | .6948 |
| 6 | Enough information available in online sites for me to judge the product quality | Male | 344 | 4.215 | .4584 |
| | | Female | 40 | 4.250 | .5430 |
| | | Total | 384 | 4.219 | .4673 |
| 7 | Product endorsed by celebrities | Male | 344 | 2.195 | .5713 |
| | | Female | 40 | 2.375 | .7403 |
| | | Total | 384 | 2.214 | .5926 |
| 8 | Product recommended to me by friends or relatives | Male | 344 | 3.962 | .4059 |
| | | Female | 40 | 4.025 | .4229 |
| | | Total | 384 | 3.969 | .4076 |
| 9 | Product having latest technologies and features. | Male | 344 | 3.924 | .3664 |
| | | Female | 40 | 3.775 | .4797 |
| | | Total | 384 | 3.909 | .3817 |

*Source: Survey Data.*

The variables under the construct product attribute, majority of the items have scored above 3.7 mean values for both male and female respondents which reflect the high effect of these variables for inducing the people to purchase online. The variables *Enough information available in online sites for me to judge the product quality, Product offering good value for money, Being the brand name I trusted* and *being the brand name I have previously used* are having high mean values of above 4. The variables *products having latest technologies and features,*

*product recommended by friends or relatives* and *the brand name is popular* also have mean values of above 3.7. It shows that these variables are the most inducing and important variables for the respondents to purchase online based on the construct 'product attribute'. Individually the variable *product offering good value for money* has the highest mean value of 4.398.

The variables having the lowest mean value for the respondents are *Product only available through the internet and Product endorsed by celebrities.* Both have mean values of just above 2. It shows that in online purchase of technological products, people are not attracted with the endorsement of products by the celebrities. They are also not at all interested in products which are available only through internet market. Among these two, product endorsed by celebrities is the least important factor with a mean value of only 2.214 in inducing online purchase of technological products.

### 5.5.3. Perceived Risk (PR)

Risk is associated with every business activity. An online consumer normally perceives higher level of risk compared to the consumers purchasing from traditional stores. In online purchase, consumers are not in direct touch with sellers like in offline purchase. They are only in touch with the sellers virtually. There are 13 variables under this construct to measure the influence of perceived risk on online purchase.

**Table 5.35**

**Mean and Standard Deviation of Items Measuring Perceived Risk (PR) in the Model.**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Payments through credit/debit cards are safe and secure | Male | 287 | 2.174 | .5052 |
| | | Female | 97 | 2.225 | .6975 |
| | | Total | 384 | 2.180 | .5276 |
| 2 | Various options of payment to choose from | Male | 287 | 3.997 | .2353 |
| | | Female | 97 | 3.950 | .3889 |
| | | Total | 384 | 3.992 | .2554 |

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 3 | Cash on delivery payment available | Male | 287 | 4.610 | .5173 |
| | | Female | 97 | 4.550 | .5524 |
| | | Total | 384 | 4.604 | .5207 |
| 4 | No risk of receiving products different from what being ordered | Male | 287 | 2.424 | .7082 |
| | | Female | 97 | 2.525 | .6400 |
| | | Total | 384 | 2.435 | .7013 |
| 5 | No risk of receiving product later than expected date. | Male | 287 | 2.375 | .7094 |
| | | Female | 97 | 2.550 | .7828 |
| | | Total | 384 | 2.393 | .7183 |
| 6 | Being charged only the agreed amount of money. | Male | 287 | 4.674 | .4693 |
| | | Female | 97 | 4.525 | .6789 |
| | | Total | 384 | 4.659 | .4962 |
| 7 | No risk being used any unauthorized personal Information. | Male | 287 | 2.288 | .6309 |
| | | Female | 97 | 2.325 | .6155 |
| | | Total | 384 | 2.292 | .6286 |
| 8 | There was no danger from the home delivery. | Male | 287 | 3.916 | .3914 |
| | | Female | 97 | 3.750 | .6304 |
| | | Total | 384 | 3.898 | .4246 |
| 9 | Money back guarantee for product not fully satisfied. | Male | 287 | 3.134 | .8327 |
| | | Female | 97 | 3.475 | .9055 |
| | | Total | 384 | 3.169 | .8458 |
| 10 | The quality of product purchased is fully guaranteed. | Male | 287 | 3.497 | .6872 |
| | | Female | 97 | 3.475 | .5986 |
| | | Total | 384 | 3.495 | .6779 |
| 11 | The product purchased is good and effective as advertised. | Male | 287 | 3.485 | .6567 |
| | | Female | 97 | 3.475 | .5986 |
| | | Total | 384 | 3.484 | .6502 |
| 12 | Able to return the product purchased if not fully satisfied. | Male | 287 | 3.430 | .7251 |
| | | Female | 97 | 3.150 | .7355 |
| | | Total | 384 | 3.401 | .7302 |
| 13 | Easy and convenient procedures for product return process. | Male | 287 | 2.142 | .7560 |
| | | Female | 97 | 1.925 | .8590 |
| | | Total | 384 | 2.120 | .7690 |

*Source: Survey Data.*

The variables *Cash on delivery payment available and being charged only the agreed amount of money* are the two variables among the thirteen having the highest mean values above 4.5 for both men and women in Kerala. *Various options of payment to choose from and There was no danger from the home delivery* also have mean scores of above 3.7, which means these two variables also have a high effect on inducing consumers to purchase technological products online. Individually, the variable *being charged only the agreed amount of money* have highest mean value for men and *Cash on delivery payment available* have the highest mean value for women on inducing online purchase under the construct perceived risk (PR).

All other variables except the above said 4 have mean values of less than 3.6, which mean a lesser effect on the intention of online purchase. The variables *No risk being used any unauthorized personal Information, No risk of receiving product later than expected date, No risk of receiving products different from what being ordered and Payments through credit/debit cards are safe and secure* are having only a mean score of just above 2. Individually, the variable *Easy and convenient procedures for product return process* have the least mean score of 2.142 and 1.925 respectively for both male and female respondents. They feel that the product return process in online marketing is much more difficult and time consuming process for the consumers compared to the traditional offline shopping. It shows that irrespective of the 4 variables, the construct perceived risk is effecting negatively in many ways on the online purchase intention of both male and female consumers in Kerala.

### 5.5.4. Perceived Ease of Use (PEU)

Perceived ease of use is the degree to which an individual believes that using a particular system would be free of effort. Online shopping is comparatively a new form of selling in retail business. How fast consumers are adapting to it matters the success of online business. It has a strong influence on the decision of online purchase. This construct has 9 variables to measure the influence of online purchase of consumers of technological products in Kerala. The respondents in the survey

have rated these variables based on the ease of use of the online shopping system when buying technological products.

**Table 5.36**

**Mean And Standard Deviation of Items Measuring Perceived Ease of Use (PEU) in the Model.**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Convenient log in-on to company homepage. | Male | 287 | 3.968 | .3526 |
| | | Female | 97 | 3.850 | .5335 |
| | | Total | 384 | 3.956 | .3763 |
| 2 | Easy and convenient online ordering layout. | Male | 287 | 4.198 | .4536 |
| | | Female | 97 | 4.175 | .4465 |
| | | Total | 384 | 4.195 | .4523 |
| 3 | Company homepage is clear and easily understandable. | Male | 287 | 4.020 | .2692 |
| | | Female | 97 | 4.050 | .3162 |
| | | Total | 384 | 4.023 | .2742 |
| 4 | Fast and convenient information searching system. | Male | 287 | 3.782 | .5471 |
| | | Female | 97 | 3.775 | .4797 |
| | | Total | 384 | 3.781 | .5399 |
| 5 | Online purchase procedure is simple. | Male | 287 | 4.262 | .4783 |
| | | Female | 97 | 4.250 | .5430 |
| | | Total | 384 | 4.260 | .4846 |
| 6 | Product information must not be too long. | Male | 287 | 2.299 | .6918 |
| | | Female | 97 | 2.575 | .9578 |
| | | Total | 384 | 2.328 | .7274 |
| 7 | Character font size must be easy to read. | Male | 287 | 3.840 | .4119 |
| | | Female | 97 | 3.825 | .3848 |
| | | Total | 384 | 3.839 | .4087 |
| 8 | Product particulars and usage are easily understandable. | Male | 287 | 3.985 | .1941 |
| | | Female | 97 | 4.000 | .2265 |
| | | Total | 384 | 3.987 | .1975 |
| 9 | Online product picture display is clear. | Male | 287 | 3.991 | .2906 |
| | | Female | 97 | 4.000 | .0000 |
| | | Total | 384 | 3.992 | .2751 |

*Source: Survey Data.*

Most of the variables related to perceived ease of use are rated high by majority of the respondents. Irrespective of the gender relation, all the variables except *product information must not be too long* are having mean values of above 3.7, which means a high effect on inducing the consumers towards online purchase

of technological products. Among the 9 variables under this construct, *Easy and convenient online ordering layout, Company homepage is clear and easily understandable and online purchase procedure is simple* are having highest mean values of above 4 for both men and women. Individually, the variable *online purchase procedure is simple* is having the highest mean score of 4.262 and 4.250 for male and female respectively. The high mean scores of all variable show that consumers strongly feel that online shopping system has the ease of use and 'log in' on to company home page, the purchase procedure and ordering lay out in online shopping is so simple to perform. Consumers are very much satisfied with the speed of the information searching system, font size of the details and product picture display.

The only variable under this construct which has a low effect on inducing the consumers to go online is *product information must not be too long.* It has a mean score of below 3.6. Consumers strongly feel that to go for online purchase, they need enough information about the product in the site to make a positive decision.

### 5.5.5. Perceived Usefulness (PU)

Perceived usefulness means the degree to which an individual believes that using a particular style or system would accelerate his personal growth and would improve his performance. This construct has 12 variables to measure the perceived usefulness of the online marketing system and its influence on inducing consumers to buy technological products online

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**Table 5.37**

**Mean and Standard Deviation of Items Measuring Perceived Usefulness (PU) in the Model.**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Being enjoyable and exciting. | Male | 287 | 3.599 | .6844 |
| | | Female | 97 | 3.700 | .6076 |
| | | Total | 384 | 3.609 | .6767 |

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 2 | Provided rich and varied information. | Male | 287 | 3.962 | .2445 |
| | | Female | 97 | 3.925 | .2667 |
| | | Total | 384 | 3.958 | .2468 |
| 3 | More reliable information than from sales person. | Male | 287 | 3.352 | .7980 |
| | | Female | 97 | 3.225 | .7675 |
| | | Total | 384 | 3.339 | .7949 |
| 4 | Shop at your convenience, whenever you want. | Male | 287 | 4.151 | .3587 |
| | | Female | 97 | 4.250 | .4385 |
| | | Total | 384 | 4.161 | .3684 |
| 5 | Not wasting time traveling to shop. | Male | 287 | 4.343 | .5853 |
| | | Female | 97 | 4.525 | .5057 |
| | | Total | 384 | 4.362 | .5796 |
| 6 | Able to shop both from within domestic and abroad. | Male | 287 | 3.235 | .6341 |
| | | Female | 97 | 3.050 | .7143 |
| | | Total | 384 | 3.216 | .6444 |
| 7 | Wide range of technological products to choose from. | Male | 287 | 4.061 | .3041 |
| | | Female | 97 | 3.975 | .3572 |
| | | Total | 384 | 4.052 | .3106 |
| 8 | Wide choice of companies providing technological products. | Male | 287 | 4.047 | .3114 |
| | | Female | 97 | 4.000 | .3922 |
| | | Total | 384 | 4.042 | .3205 |
| 9 | Lower price than conventional stores. | Male | 287 | 4.110 | .3733 |
| | | Female | 97 | 4.125 | .3349 |
| | | Total | 384 | 4.112 | .3691 |
| 10 | Larger discounts offered. | Male | 287 | 4.119 | .3898 |
| | | Female | 97 | 4.100 | .4414 |
| | | Total | 384 | 4.117 | .3949 |
| 11 | More free of charge gifts than conventional stores. | Male | 287 | 2.090 | .4588 |
| | | Female | 97 | 1.900 | .4961 |
| | | Total | 384 | 2.070 | .4658 |

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 12 | Free samples are available. | Male | 287 | 1.485 | .5005 |
| | | Female | 97 | 1.400 | .4961 |
| | | Total | 384 | 1.477 | .5001 |

*Source: Survey Data.*

Majority of the variables are rated highly by the respondents irrespective of gender. The variables *Provided rich and varied information, Shop at your convenience, whenever you want, Not wasting time traveling to shop, Wide range of technological products to choose from, Wide choice of companies providing technological products, Lower price than conventional stores and Larger discounts offered* have high mean scores of above 3.7 for both male and female . It means that irrespective of the gender these variables have high effect on inducing consumers to buy online. Individually the variable *not wasting time traveling to shop* have the mean score for both male and female 4.343 and 4.525 respectively. It means that convenient shopping from where ever and when ever they wish and they don't want to waste time for travelling to shops are the most useful and inducing factor in online marketing for the consumers to buy online.

Some of the variables like *More reliable information than from sales person, Able to shop both from within domestic and abroad, More free of charge gifts than conventional stores and Free samples are available* are rated low by the respondents. These variables have mean values of less than 3.6, which means a low effect in this study. The above variables have not influence or effect on both male and female consumers in Kerala to go for online shopping for technological products. Consumers do not feel that the information provided by online shopping sites is not more reliable than from the sales persons of traditional brick and mortar shops. The consumers are not at all satisfied with the free of charge gifts and samples in online marketing. These two variables have the least mean score of 2.070 and 1.477 which are below the neutral mean.

### 5.5.6. Customer Experience (CE)

People are taking future decisions based on their past experiences. Even though online shopping is a new style shopping to the consumers of Kerala, more and more people are showing interest towards it. How the online shopping experience influence the future shopping really matters. This construct has 12 variables to measure the factors which affect the decision of online purchase of technological products by both male and female consumers in Kerala.

**Table 5.38**

**Mean and Standard Deviation of Items Measuring Customer Experience (CE) in the Model.**

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Easy to find desired products | Male | 287 | 4.073 | .2917 |
| | | Female | 97 | 3.925 | .2667 |
| | | Total | 384 | 4.057 | .2924 |
| 2 | Easy to compare similar types of products | Male | 287 | 3.997 | .2806 |
| | | Female | 97 | 3.975 | .1581 |
| | | Total | 384 | 3.995 | .2703 |
| 3 | Easy to find economical products | Male | 287 | 4.032 | .2067 |
| | | Female | 97 | 3.950 | .2207 |
| | | Total | 384 | 4.023 | .2094 |
| 4 | No sales person to bother with. | Male | 287 | 4.276 | .5983 |
| | | Female | 97 | 4.075 | .7299 |
| | | Total | 384 | 4.255 | .6153 |
| 5 | Helps to save shopping time | Male | 287 | 4.424 | .5123 |
| | | Female | 97 | 4.375 | .4903 |
| | | Total | 384 | 4.419 | .5097 |
| 6 | Easy to find newly launched products for purchase | Male | 287 | 4.076 | .4253 |
| | | Female | 97 | 3.900 | .3038 |
| | | Total | 384 | 4.057 | .4174 |
| 7 | No need to have high English literacy | Male | 287 | 4.134 | .3888 |
| | | Female | 97 | 4.025 | .3572 |
| | | Total | 384 | 4.122 | .3866 |

| Sl No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 8 | Demonstration about usage of products is available | Male | 287 | 1.942 | .4212 |
| | | Female | 97 | 1.925 | .3499 |
| | | Total | 384 | 1.940 | .4139 |
| 9 | Gets enough time to judge the product before making purchase | Male | 287 | 4.500 | .5007 |
| | | Female | 97 | 4.600 | .4961 |
| | | Total | 384 | 4.510 | .5005 |
| 10 | Chances of bargaining is high | Male | 287 | 1.625 | .5083 |
| | | Female | 97 | 1.575 | .5006 |
| | | Total | 384 | 1.620 | .5071 |
| 11 | Customer gets original bill for the purchase | Male | 287 | 4.049 | .5718 |
| | | Female | 97 | 3.925 | .5256 |
| | | Total | 384 | 4.036 | .5678 |
| 12 | No hard feeling when not making any purchase. | Male | 287 | 4.451 | .5155 |
| | | Female | 97 | 4.425 | .5943 |
| | | Total | 384 | 4.448 | .5235 |

*Source: Survey Data.*

The mean scores of the variables under the construct customer experience show that respondents rated highly for most of the variables. Out of the 12 variables, 10 have mean scores of above 3.7 which means a high effect for this variable in the study. It shows that the past customer experience in online shopping shows a positive support to the future decision of going online for buying technological products. Both male and female consumers are satisfied with the selection of products in online sites. They find it easy to compare the desired and economical products in online shops; find newly launched products which are not available in their local market and also feel that online shopping helps them to save their shopping time. Respondents have experienced that English language is not at all a barrier in doing online shopping. Consumers are very much satisfied with the time they are getting in online shopping before taking a purchase decision. They do not have any hard feeling if they do not make any purchase even after spending more time in online shopping site. They need not bother about any comments from sales personnel as there is no scope for it in online shopping.

The variables *Demonstration about the usage of products is available and Chances of bargaining is high* have the least mean score of 1.940 and 1.620 which are far below the neutral mean value. Both these variables have the mean values less that 3.6 which means low effect in this study. Consumers are not satisfied with the demonstration of products and the pricing strategy as there is no scope for bargaining in online trade.

### 5.5.7. Personality of the Consumer (PC)

Personality of the consumer plays a vital role in deciding online shopping habits. Respondents were given five variables under this construct for measuring the effect of online purchase of technological products. The mean score shows that all the five variables have above 3.7 values which means a high effect for these variables in this study. Personality of the consumers irrespective of their gender has a positive effect in inducing them to purchase technological products online.

**Table 5.39**

**Mean and Standard Deviation of Items Measuring Personality of the Consumer (PC) in the Model**

| Sl. No. | Variables | Gender | Number | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1 | Trendy and fashionable | Male | 287 | 3.703 | .6291 |
| | | Female | 97 | 3.875 | .5158 |
| | | Total | 384 | 3.721 | .6199 |
| 2 | Like to use latest technologies | Male | 287 | 3.826 | .4236 |
| | | Female | 97 | 3.800 | .4051 |
| | | Total | 384 | 3.823 | .4212 |
| 3 | Efficient and skillful in surfing the internet | Male | 287 | 3.785 | .5181 |
| | | Female | 97 | 3.725 | .5986 |
| | | Total | 384 | 3.779 | .5265 |
| 4 | Surfing internet frequently | Male | 287 | 3.805 | .4828 |
| | | Female | 97 | 3.775 | .5305 |
| | | Total | 384 | 3.802 | .4873 |
| 5 | Good in English language | Male | 287 | 3.765 | .5557 |
| | | Female | 97 | 3.850 | .3616 |
| | | Total | 384 | 3.773 | .5390 |

*Source: Survey Data.*

The above descriptive table shows that both male and female have rated high all the personality measuring variables in this construct. The people in Kerala who are trendy and fashionable, good in English language, have the skill in surfing the internet and doing it frequently and like to use latest technologies are a high possibility in going online for purchase of technological products. Individually, the female respondents feel that the variable *trendy and fashionable* is the most inducing factor to purchase online showing the high mean score of 3.875. The male respondents have a different opinion regarding this. They feel that those who use latest technologies (mean value of 3.826) have a high chance of going online for the purchase of technological products.

## 5.6. Testing of Research Constructs Based on the Demographic Features of Respondents.

As stated earlier, seven constructs have been developed to check the factors influencing the online purchase intention of consumers. Seventy statements related to this seven constructs were also developed. Respondents were asked to mark their level of agreement/disagreement based on their perception and experience to these statements on a five point scale ranging from strongly agree to strongly disagree (Strongly Agree =5, Agree =4, Neutral =3, Disagree =2, and Strongly Disagree =1). In-depth analysis of each constructs and statements are discussed in the following pages.

It is also decided to check how the demographic variables of these consumers influences their intention to buy technological products online. The demographic characteristics analyzed in this study are gender, age, marital status, education, occupation, income, and place of living and the area of residence of the respondents.

An attempt is made to study whether these demographic factors have any significant relation in the interaction effect with various constructs used in this study, on inducing the online buyers of technological products. Following are the research constructs developed for the study.

- Company Attribute (CA)
- Product Attribute (PA)
- Perceived Risk (PR)
- Perceived Ease of Use (PEU)
- Perceived Usefulness (PU)
- Customer Experience (CE)
- Personality of the Customer (PC)

Mean, Independent sample t test, One-Way ANOVA and Post Hoc tests for multiple comparisons are the various statistical tools used for this purpose. The results of the tests are interpreted with 5% significance level based on the P value of the demographic factors. Null hypothesis and alternate hypothesis are developed for checking each construct and demographic factor separately.

## 1. Company Attribute

The information about the details of the company who provides goods and services is essential to reach a purchase decision by the new consumers. There may be demographic relations among the consumers on judging company attributes before making purchase. Hence the researcher here analyzing various demographic factors which is relevant to the study with company attributes.

## Gender, Marital Status and Area of Residence Wise Comparison with Company Attribute.

For the purpose of comparing the ‘construct company attribute’ with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to the company attribute in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to the company attribute in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to the company attribute in online shopping.

$H_1$ 2: There is significant relation between married and unmarried respondents with regard to the company attribute in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to the company attribute in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to the company attribute in online shopping.

The Independent sample t test is used for testing the hypothesis and the result is presented in table 5.26 and interpreted on the basis of the p value.

**Table 5.40**

**Gender, Marital Status and Area of Residence Wise Comparison with Company Attribute**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 4.04 | 2.538 | .012 | Significant |
| | Female | 40 | 3.95 | | | |
| | Total | 384 | 4.0343 | | | |
| Marital status | Single | 131 | 4.0051 | -1.848 | .065 | Not significant |
| | Married | 253 | 4.0494 | | | |
| | Total | 384 | 4.0343 | | | |
| Area of Residence | Rural | 148 | 4.0338 | -.035 | .972 | Not significant |
| | Urban | 236 | 4.0346 | | | |
| | Total | 384 | 4.0343 | | | |

*Source: Survey data, Significance level at 5%*

The above table shows that in the case of gender wise comparison, there is a significant relation among the male and female respondents in the consideration of company attribute as an inducing factor for making online purchase of technological products. Here the null hypothesis is rejected and the alternate hypothesis, there is

significant relation between male and a female respondent with regard to the company attribute in online shopping is accepted at 5% significance level. The mean score of male respondents for considering company attribute on inducing them to purchase online is 4.044 which are higher than the mean score of female respondents 3.950. This relation in the mean is statistically significant with its p value derived through independent sample t test.

The marital status wise and area of residence wise comparison of company attribute on inducing the respondents to purchase online, the table reveals that there is no significant relation among these demographic factors of the respondents on inducing them to purchase online. The relation in the mean value of unmarried and married respondents, rural and urban respondents is negligible. Statistically it has no significance at 5% level of significance. In both cases the null hypothesis, there is no significant relation between unmarried and married respondents and rural and urban respondents with regard to the company attribute in online shopping is accepted.

## Age, income and place of living wise comparison with company attribute.

Here for the purpose of comparing the construct 'company attribute' with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis are formulated;

$H_0$ 1: There is no significant relation between the age of the respondents with regard to company attribute in online shopping.

$H_1$1: There is significant relation between the age of respondents with regard to company attribute in online shopping.

$H_0$ 2: There is no significant relation between the income of respondents with regard to company attribute in online shopping.

$H_1$2: There is significant relation between the income of respondents with regard to company attribute in online shopping.

$H_0$ 3: There is no significant relation between the place of living of respondents with regard to company attribute in online shopping.

$H_1$3: There is significant relation between the place of living of respondents with regard to company attribute in online shopping.

Here the categories of demographic factors are more than two for age, income and place of living of the respondents. Therefore the statistical test, One-Way ANOVA and Post Hoc Tests for Multiple comparisons were used for testing the hypothesis and interpreting the results. The results are presented in the table 5.41.

**Table 5.41**

**Age, Income and Place of Living Wise Comparison with Company Attribute**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.9943 | 5.429 | .005 | Significant |
| | 25-35 | 217 | 4.0668 | | | |
| | Above 35 | 50 | 3.9867 | | | |
| | Total | 384 | 4.0343 | | | |
| Income | 20000-40000 | 216 | 4.0432 | 2.033 | .132 | Not significant |
| | 40000-60000 | 153 | 4.0131 | | | |
| | Above 60000 | 15 | 4.1222 | | | |
| | Total | 384 | 4.0343 | | | |
| Place of Living | North | 128 | 4.0333 | .566 | .568 | Not significant |
| | Central Kerala | 128 | 4.0515 | | | |
| | South | 128 | 4.0207 | | | |
| | Total | 384 | 4.0343 | | | |

*Source: Survey data, Significance at 5% level.*

The age wise comparison of respondents on inducing them for online purchase of technological products with regard to company attribute, table 5.41 shows that the mean score of three age groups are different. The mean score of 16-

25 age groups is 3.9943, age 25-35 is 4.0668 and age >35 are 3.9867 respectively. The mean score is tested by using One-Way ANOVA to check whether this relation is statistically significant or not. The test shows that there is significant relation in the consideration of company attribute by different age groups on inducing them to purchase online. The F value is 5.429 and the P value is .005 which shows it is significant at 5% level significance. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between the age of the respondents with regard to the company attribute in online shopping is accepted. A further analysis is made with Tukey Post Hoc Test for Multiple comparison to check which age category is considering the company attribute more compared to other age groups.

**Table 5.42**

**Post Hoc Tests for Multiple Comparisons**

Dependant variable: Company Attribute

| (I) Age | (J) Age | Mean Relation (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| 16-25 | 25-35 | -.07252 | .02534 | .01 |
| | >35 | .00764 | .03733 | .98 |
| 25-35 | 16-25 | .07252 | .02534 | .01 |
| | >35 | .08015 | .03466 | .04 |
| >35 | 16-25 | -.00764 | .03733 | .98 |
| | 25-35 | -.08015 | .03466 | .04 |

*Source: Survey data, Significance level at 5%.*

From the above table 5.42, it is clear that the mean value of age group 25-35 (4.0668) is significantly differing from the mean value of other age groups. So, it can be concluded that the young consumers in Kerala aged between 25-35 are considering company attribute as a strong factor which influences the online purchase intention of technological products.

The comparison of demographic factors income and place of living with company attribute on inducing the respondents to buy technological products online, the table reveals that the mean value of the income wise and place of living wise categories of respondents are not significantly different with one another. The result of One-Way ANOVA test shows that the relation in the mean value of different income groups and respondents of North region, central part of Kerala and Southern region are negligible and it has no statistical significance at 5% significant level as the P value is .132 and .568 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the incomes of the respondents and places of living of the respondents with regard to the company attribute in online shopping is accepted.

## Education and Occupation Wise Comparison with Company Attribute

For further analysis of the construct 'company attribute' with regard to the demographic factors Education and occupation of the respondents the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between the education of respondents with regard to company attribute in online shopping.

$H_1$1: There is significant relation between the education of respondents with regard to company attribute in online shopping.

$H_0$ 2: There is no significant relation between the occupation of respondents with regard to company attribute in online shopping.

$H_1$ 2: There is significant relation between the occupation of respondents with regard to company attribute in online shopping.

One-Way ANOVA is used to test the significance of demographic factors with the influence of 'company attribute' on inducing respondents to buy technological products online. Education is categorized in to 4 groups as plus two, degree, PG and others. Likewise, occupation is categorized in to 6 groups as govt.

/Public, private, business, student, domestic affairs and NRI's. The results are presented in table 5.43

**Table 5.43**

**Education and occupation wise comparison with company attribute**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.9938 | 1.317 | .269 | Not significant |
| | Graduation | 264 | 4.0398 | | | |
| | PG | 41 | 4.0163 | | | |
| | Others | 25 | 4.0933 | | | |
| | Total | 384 | 4.0343 | | | |
| Occupation | Govt./Public | 58 | 4.0460 | .773 | .570 | Not significant |
| | Private | 158 | 4.0454 | | | |
| | Business | 33 | 4.0000 | | | |
| | Student | 105 | 4.0095 | | | |
| | Domestic affairs | 9 | 4.0556 | | | |
| | NRI's | 21 | 4.0873 | | | |
| | Total | 384 | 4.0343 | | | |

*Source: Survey data, Significance level at 5%.*

Here the comparison of demographic factors, education and occupation with 'company attribute' on influencing the respondents to purchase technological products online, table 5.43 reveals that the mean values of different categories of the education and occupation of respondents are not significantly different with each other. The result of One-Way ANOVA test shows that the relation in the mean value of different educationally qualified respondents and respondents who have different occupation are negligible and it has no statistical significance at 5% significant level as the P value is .269 and .570 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the education of the respondents with regard to the company attribute in online shopping and there is no significant relation between the occupation of the respondents with regard to the company attribute in

online shopping have been accepted. It can be concluded that, irrespective of the level of education and occupation, the online consumers are considering company attribute and it has a positive influence in the online purchase intention of e shopping consumers in Kerala.

## 2. Product Attribute

The product attributes are one of the most important factors considered by the buyers before coming in to a purchase decision both in online and offline. Judging the features and utilities of the products may vary with demographic difference of the consumers. How the various demographic factors of the consumers affect in judging the product attribute before making an online purchase is analyzed here.

## Gender, Marital Status and Area of Residence Wise Comparisons with Product Attribute.

For the purpose of comparing the construct 'product attribute' with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis have been formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to the consideration of product attribute in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to the consideration of product attribute in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to the consideration of product attribute in online shopping.

$H_1$ 2: There is significant relation between married and unmarried respondents with regard to the consideration of product attribute in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to the consideration of product attribute in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to the consideration of product attribute in online shopping.

As there are two categories in each of the demographic factors, the Independent sample t test was used for testing the hypothesis and the result is presented in the table 5.44 and interpreted on the basis of the p value.

**Table 5.44**

**Gender, Marital Status and Area of Residence Wise Comparisons with Product Attribute.**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.6725 | -.844 | .399 | Not Significant |
| | Female | 40 | 3.7000 | | | |
| | Total | 384 | 3.6753 | | | |
| Marital status | Single | 131 | 3.7133 | 2.767 | .006 | Significant |
| | Married | 253 | 3.6557 | | | |
| | Total | 384 | 3.6753 | | | |
| Area of Residence | Rural | 148 | 3.6629 | -.989 | .323 | Not significant |
| | Urban | 236 | 3.6831 | | | |
| | Total | 384 | 3.6753 | | | |

*Source: Survey data, Significance level at 5%.*

The above statistical table shows that in the case of marital status wise comparison, there is a significant relation among the unmarried and married respondents in the consideration of product attribute as an inducing factor for making online purchase of technological products. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between unmarried and a married respondent with regard to the product attribute in online shopping is accepted at 5% significance level. The mean score of unmarried respondents on considering product attribute on inducing them to purchase online is 3.7133 which are higher than the mean score of married respondents 3.6557. This difference in the mean is statistically significant with its p value derived through independent sample t test.

The gender wise and area of residence wise comparison of 'product attribute' on inducing the respondents to purchase online, the above table reveals that there is no significant relation among these demographic factors of the respondents on inducing them to purchase online. The differences in the mean value of male and female respondents, rural and urban respondents are negligible. Statistically it has no significance at 5% level of significance. In both cases the null hypothesis, there is no significant relation between male and female respondents and rural and urban respondents with regard to the consideration of product attribute in online shopping have been accepted.

## Age, Income and Place of Living Wise Comparison with Product Attribute.

For the purpose of comparing the construct 'product attribute' with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between the age of respondents with regard to consideration of product attribute in online shopping.

$H_1$1: There is significant relation between the age of respondents with regard to consideration of product attribute in online shopping.

$H_0$ 2: There is no significant relation between the income of respondents with regard to consideration of product attribute in online shopping.

$H_1$2: There is significant relation between the income of respondents with regard to consideration of product attribute in online shopping.

$H_0$ 3: There is no significant relation between the place of living of respondents with regard to consideration of product attribute in online shopping.

$H_1$3: There is significant relation between the place of living of respondents with regard to consideration of product attribute in online shopping.

The categories of demographic factors are more than two for age, income and place of living of the respondents. Therefore the statistical test, One-Way ANOVA and Post Hoc Tests for Multiple comparisons are used for testing the hypothesis and interpreting the results. The results are presented in the table 5.45

**Table 5.45**

**Age, Income and Place of Living Wise Comparison with Product Attribute.**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.7198 | 6.702 | .001 | Significant |
| | 25-35 | 217 | 3.6677 | | | |
| | Above 35 | 50 | 3.6044 | | | |
| | Total | 384 | 3.6753 | | | |
| Income | 20000-40000 | 216 | 3.6656 | 1.400 | .248 | Not significant |
| | 40000-60000 | 153 | 3.6819 | | | |
| | Above 60000 | 15 | 3.7481 | | | |
| | Total | 384 | 3.6753 | | | |
| Place of Living | North | 128 | 4.0333 | 2.630 | .073 | Not significant |
| | Central Kerala | 128 | 4.0515 | | | |
| | South | 128 | 4.0207 | | | |
| | Total | 384 | 4.0343 | | | |

*Source: Survey data, Significance level at 5%.*

The age wise comparison of the respondents on inducing them to online purchase of technological products with regard to 'product attribute', table 5.45 shows that the mean scores of different age groups are varying. The mean score of 16-25 age group is 3.7198, age group 25-35 is 3.6677and >35age group is 3.6044. The mean score is further tested by using One-Way ANOVA to check whether this difference is statistically significant or not. The test shows that there is significant relation in the consideration of product attribute by different age groups on inducing them to purchase online. The F value is 6.702 and the P value is .001 which shows the significance at 5% significant level. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between the age of the respondents

with regard to the product attribute in online shopping is accepted. The researcher further tested the age of the respondents with Tukey Post Hoc Test for Multiple comparisons to check which age group has more concern for product attribute compared to other age groups.

**Table 5.46**

**Post Hoc Tests- Age**

**Multiple Comparisons**

Dependant variable: Product Attribute

| Age | Age | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 16-25 | 25-35 | .05216 | .02206 | .049 |
| | >35 | .11540 | .03249 | .001 |
| 25-35 | 16-25 | -.05216 | .02206 | .049 |
| | >35 | .06325 | .03017 | .092 |
| >35 | 16-25 | -.11540 | .03249 | .001 |
| | 25-35 | -.06325 | .03017 | .092 |

*Source: Survey data*

From the above multiple comparison table, it is clear that the mean value of age group 16-25 (3.7198) significantly differs from the mean value of other age groups. It can be concluded that the 16-25 age group consumers in Kerala are considering product attribute as a strong factor which influence the online purchase intention of technological products.

The comparison of other demographic factors, income of the respondents and place of living of the respondents with product attribute on inducing them to buy technological products online, the above table 5.45 reveals that the mean value of the income wise and place of living wise categories of respondents are not significantly different with one another. The result of One-Way ANOVA test shows that the difference in the mean value of various income groups and respondents of north region, central part of Kerala and southern region are negligible and it has no

statistical significance at 5% significant level as the P value is .248 and .073 respectively. Hence, it can be concluded that in both cases the null hypothesis, there is no significant relation between the income of respondents and places of living of the respondents with regard to the consideration of product attribute in online shopping have been accepted.

## Education and Occupation Wise Comparison with Product Attribute

A further comparison of the construct product attribute is made with regard to the demographic factors, education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between the education of respondents with regard to consideration of product attribute in online shopping.

$H_1$1: There is significant relation between the education of respondents with regard to consideration of product attribute in online shopping.

$H_0$ 2: There is no significant relation between the occupation of respondents with regard to consideration of product attribute in online shopping.

$H_1$ 2: There is significant relation between the occupation of respondents with regard to consideration of product attribute in online shopping.

The statistical tool One-Way ANOVA is used to test the significance of demographic factors difference with the influence of product attribute on inducing the respondents to buy technological products online. Education is categorized in to 4 groups as plus two, degree, PG and others. Occupation is categorized in to 6 groups as govt. /Public, private, business, student, Domestic affairs and NRI's. The results are presented in table 5.47

**Table 5.47**

**Education and Occupation Wise Comparison with Product Attribute**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.6481 | .663 | .575 | Not significant |
| | Graduation | 264 | 3.6810 | | | |
| | PG | 41 | 3.6911 | | | |
| | Other | 25 | 3.6489 | | | |
| | Total | 384 | 3.6753 | | | |
| Occupation | Govt./Public | 58 | 3.6341 | 2.324 | .043 | Significant |
| | Private | 158 | 3.6561 | | | |
| | Business | 33 | 3.6734 | | | |
| | Student | 105 | 3.7228 | | | |
| | Domestic affairs | 9 | 3.6420 | | | |
| | NRI's | 21 | 3.7143 | | | |
| | Total | 384 | 3.6753 | | | |

*Source: Survey data, Significance level at 5%.*

The comparison of demographic factors, education with 'product attribute' on influencing the respondents to purchase technological products online, the table 5.47 reveals that the mean value of different categories of education of respondents are not significantly different with each other. The result of One-Way ANOVA test shows that the difference in the mean value of different educational groups of respondents are negligible and it has no statistical significance at 5% significant level as the P value is .575. Hence, the null hypothesis, there is no significant relation between the education of the respondents with regard to the consideration of product attribute in online shopping is accepted. It can be concluded that, irrespective of the level of education, online consumers are considering product attribute as an influencing factor in the online purchase intention of e shopping consumers in Kerala. The overall mean value of education 3.675 shows that it has a moderate effect on this study.

Occupation wise analysis of the data with regard to consideration of 'product attributes' table 5.47 shows that there is significant relation among the respondents. One-Way ANOVA test reveals that the p value is .043 which is below 5% level of significance. It means that the difference in the mean value is significant enough to reject the null hypothesis and accept the alternate hypothesis; there is significant relation between the occupation of respondents with regard to the consideration of product attribute in online shopping.

## 3. Perceived Risk

Risk is always associated with all business activities. Normally the risk involved in online purchase is much higher compared to traditional store purchase like; fear of losing credit card information, cheating, return policy, supply of defective products, delay in supply of product etc. How a customer perceives these risks in online purchase may vary according to their demographic factors and will influence the purchase decision.

An attempt is made to check how much the presence of risk factors influences the decision of online purchase based on the demographic differences of the online buyers in Kerala.

## Gender, Marital Status and Area of Residence Wise Comparisons with the Construct Perceived Risk (PR)

For the purpose of comparing the construct perceived risk with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to consideration of perceived risk in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to consideration of perceived risk in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to consideration of perceived risk in online shopping.

$H_1$ 2: There is significant relation between married and unmarried respondents with regard to consideration of perceived risk in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to consideration of perceived risk in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to consideration of perceived risk in online shopping.

**Table 5.48**

**Gender, Marital Status and Area of Residence Wise Comparisons with the Construct Perceived Risk**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.2422 | .411 | .681 | Not Significant |
| | Female | 40 | 3.2231 | | | |
| | Total | 384 | 3.2402 | | | |
| Marital status | Single | 131 | 3.3059 | 3.380 | .001 | Significant |
| | Married | 253 | 3.2061 | | | |
| | Total | 384 | 3.2402 | | | |
| Area of Residence | Rural | 148 | 3.2723 | 1.801 | .073 | Not significant |
| | Urban | 236 | 3.2200 | | | |
| | Total | 384 | 3.2402 | | | |

*Source: Survey data, Significance level at 5%.*

The above table 5.48 shows that in the case of marital status wise comparison, there is significant relation among unmarried and married respondents in the consideration of perceived risk as an inducing factor for making online purchase of technological products. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between unmarried and a married respondents with regard to perceived risk in online shopping is accepted at 5%

significance level. The mean score of unmarried respondents on considering perceived risk on inducing them to purchase online is 3.3059 which is more than the mean score of married respondents 3.2061. This difference in the mean value is statistically significant with its p value derived through independent sample t test.

The gender wise and area of residence wise comparison of perceived risk on inducing the respondents to purchase online, table 5.48 clearly reveals that there is no significant relation among these demographic factors of the respondents. The difference in the mean values of male and female respondents, rural and urban respondents is negligible. Statistically it has no significance at 5% level of significance as the p value is .681 and .073 respectively. Hence it can be concluded that in both cases the null hypothesis, there is no significant relation between male and female respondents and rural and urban respondents with regard to the consideration of perceived risk in online shopping is accepted.

## Age, Income and Place of Living Wise Comparison with Perceived Risk.

For the purpose of comparing the construct 'perceived risk' with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between age of respondents with regard to consideration of perceived risk in online shopping.

$H_1$1: There is significant relation between age of respondents with regard to consideration of perceived risk in online shopping.

$H_0$ 2: There is no significant relation between income of respondents with regard to consideration of perceived risk in online shopping.

$H_1$2: There is significant relation between income of respondents with regard to consideration of perceived risk in online shopping.

$H_0$ 3: There is no significant relation between place of living of respondents with regard to consideration of perceived risk in online shopping.

$H_1$3: There is significant relation between place of living of respondents with regard to consideration of perceived risk in online shopping.

The results of the tests are presented in the table 5.49

**Table 5.49**

**Age, Income and Place of Living Wise Comparison with Perceived Risk.**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.3143 | 6.620 | .001 | Significant |
| | 25-35 | 217 | 3.1999 | | | |
| | Above 35 | 50 | 3.2415 | | | |
| | Total | 384 | 3.2402 | | | |
| Income | 20000-40000 | 216 | 3.2155 | 5.304 | .005 | Significant |
| | 40000-60000 | 153 | 3.2549 | | | |
| | Above 60000 | 15 | 3.4462 | | | |
| | Total | 384 | 3.2402 | | | |
| Place of Living | North | 128 | 3.2684 | 2.096 | .124 | Not significant |
| | Central Kerala | 128 | 3.1972 | | | |
| | South | 128 | 3.2451 | | | |
| | Total | 384 | 3.2402 | | | |

*Source: Survey data, Significance level at 5%.*

The age wise and income wise comparison of the respondents on inducing them to online purchase of technological products with regard to perceived risk, table 5.49 shows that the p value of these demographic factors .001 and .005 are showing significance at 5% level.

The mean scores of 16-25 age group is 3.3143, age group 25-35 is 3.1999 and >35 age group are 3.2415. The One-Way ANOVA f test shows the p value less than 5% and it reveals that there is significant relation in the consideration of

perceived risk by different age groups on inducing them to purchase online. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between the ages of the respondents with regard to the perceived risk in online shopping is accepted. It is further tested with Tukey Post Hoc Test for Multiple comparisons to check which age category has considering perceived risk more compared to other age groups.

**Table 5.50**

**Post Hoc Tests- Age**

**Multiple Comparisons**

Dependant variable: Perceived Risk

| (I) Age | (J) Age | Mean Relation (I-J) | Std. Error | Sig. |
|---|---|---|---|---|
| 16-25 | 25-35 | .11434* | .03142 | .001 |
| | >35 | .07273 | .04629 | .259 |
| 25-35 | 16-25 | -.11434* | .03142 | .001 |
| | >35 | -.04161 | .04298 | .597 |
| >35 | 16-25 | -.07273 | .04629 | .259 |
| | 25-35 | .04161 | .04298 | .597 |

*Source: Survey data, Significance level at 5%.*

From the above multiple comparisons table it is clear that the mean value of age group 16-25 (3.3143) is significantly differs from the mean value of other age groups. It can be concluded that the 16-25 age group consumers in Kerala are considering perceived risk as a strong factor which influence the online purchase intention of technological products.

The difference in the income of respondents has also significantly influenced them in online purchase of technological products. The post hoc test for multiple comparisons table 5.51 shows that those with income above Rs. 60000 are significantly different from other income groups in considering perceived risk in online shopping.

**Table 5.51**

**Post Hoc Tests- Income**

**Multiple comparisons**

Dependant variable: Perceived Risk

| Income | Income | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 20000-40000 | 40000-60000 | -.03945 | .02905 | .364 |
| | Above 60000 | -.23070 | .07340 | .005 |
| 40000-60000 | 20000-40000 | .03945 | .02905 | .364 |
| | Above 60000 | -.19125 | .07438 | .028 |
| Above 60000 | 20000-40000 | .23070 | .07340 | .005 |
| | 40000-60000 | .19125 | .07438 | .028 |

*Source: Survey data, Significance level at 5%.*

The comparison of demographic factors, place of living with perceived risk on influencing the respondents to purchase technological products online, table 5.49 reveals that the mean value of different categories of the place of living of the respondents are not significantly different. The p value .124 shows that the difference in the mean value of people of north, central part of Kerala and south regions are negligible and it has no statistical significance at 5% significance level. Hence, the null hypothesis, there is no significant relation between the education of the respondents with regard to the consideration of perceived risk in online shopping is accepted. It can be concluded that, irrespective of the place of living, online consumers are considering perceived risk as an influencing factor in the online purchase intention of e shopping consumers in Kerala.

## Education and Occupation Wise Comparison with Perceived Risk.

Further analysis is made to study the construct ‘perceived risk’ with regard to the demographic factors, level of education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between level of education of the respondents with regard to consideration of perceived risk in online shopping.

$H_1$1: There is significant relation between level of education of the respondents with regard to consideration of perceived risk in online shopping.

$H_0$ 2: There is no significant relation between occupation of the respondents with regard to consideration of perceived risk in online shopping.

$H_1$ 2: There is significant relation between occupation of the respondents with regard to consideration of perceived risk in online shopping.

The result is presented in table 5.52

**Table 5.52**

**Education and Occupation Wise Comparison with Perceived Risk.**

| **Independent Variable** | | **N** | **Mean** | **F** | **P Value** | **Sig.** |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.2778 | 1.090 | .353 | Not significant |
| | Graduation | 264 | 3.2416 | | | |
| | PG | 41 | 3.2326 | | | |
| | Other | 25 | 3.1569 | | | |
| | Total | 384 | 3.2402 | | | |
| Occupation | Govt./Public | 58 | 3.1565 | 5.890 | .000 | Significant |
| | Private | 158 | 3.1947 | | | |
| | Business | 33 | 3.2611 | | | |
| | Student | 105 | 3.3407 | | | |
| | Domestic affairs | 9 | 3.1111 | | | |
| | NRI's | 21 | 3.3333 | | | |
| | Total | 384 | 3.2402 | | | |

*Source: Survey data, Significance level at 5%.*

The result of education wise classification of the respondents shows that the difference in level of education has no influence in considering 'perceived risk', as the p value is .353 which is well above 5% significance level. Hence the null hypothesis, there is no significant relation between the level of education of the respondents with regard to consideration of perceived risk in online shopping is accepted.

But in the case of occupation of the respondents, the table shows that the relation in occupation is statistically significant as the p value is .000 which is well below the 5% significance level. From the mean value, it is clear that students have the highest mean score and Domestic affairs have the least mean score in considering the perceived risk as an inducing factor in online purchase. Hence the null hypothesis is rejected.

### 4. Perceived Ease of Use

Perceived ease of use means the degree to which a person believes that using a particular system would be free of effort. Online shopping is comparatively a new medium of shopping in India. Even though the trend of online shopping is increasing every year, but consumers are not so common in making online purchase particularly in Kerala. How a person perceives the ease of use of web shopping will influence his or her purchase decision. This may vary according to the demographic relations of online consumers. An attempt is made to study, how much the ease of use of online shopping system influence the purchase intention based on the demographic differences of online buyers.

## Gender, Marital Status and Area of Residence Wise Comparison with Perceived Ease of Use.

For the purpose of comparing the construct perceived ease of use with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to the consideration of perceived ease of use in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to the consideration of perceived ease of use in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to the consideration of perceived ease of use in online shopping.

$H_1$ 2: There is significant relation between unmarried and married respondents with regard to the consideration of perceived ease of use in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to the consideration of perceived ease of use in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to the consideration of perceived ease of use in online shopping.

The result is presented in the table 5.53 below;

**Table 5.53**

**Gender, Marital Status and Area of Residence Wise Comparison with Perceived Ease of Use.**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.8162 | -.565 | .572 | Not Significant |
| | Female | 40 | 3.8333 | | | |
| | Total | 384 | 3.8180 | | | |
| Marital status | Single | 131 | 3.8117 | -.489 | .625 | Not Significant |
| | Married | 253 | 3.8213 | | | |
| | Total | 384 | 3.8180 | | | |
| Area of Residence | Rural | 148 | 3.8078 | -.872 | .384 | Not significant |
| | Urban | 236 | 3.8244 | | | |
| | Total | 384 | 3.8180 | | | |

*Source: Survey data, Significance level at 5%.*

The gender wise, marital status wise and area of residence wise comparison of perceived ease of use on inducing the respondents to purchase online, the table clearly shows that there is no significant relation among these demographic factors of the respondents. The difference in the mean value of male and female respondents, single and married people, rural and urban respondents is negligible. Statistically it has no significance at 5% level of significance as the p value is .572, .625 and .384 respectively. Hence it can be concluded that in all the cases the null hypothesis, there is no significant relation between male and female respondents, unmarried and married respondents and rural and urban respondents with regard to the consideration of perceived ease of use in online shopping, is accepted.

## Age, income and place of living wise comparison with perceived ease of use.

Here for the purpose of comparing the construct perceived ease of use with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between age of respondents with regard to consideration of perceived ease of use in online shopping.

$H_1$1: There is significant relation between age of respondents with regard to consideration of perceived ease of use in online shopping.

$H_0$ 2: There is no significant relation between income of respondents with regard to consideration of perceived ease of use in online shopping.

$H_1$2: There is significant relation between income of respondents with regard to consideration of perceived ease of use in online shopping.

$H_0$ 3: There is no significant relation between place of living of respondents with regard to consideration of perceived ease of use in online shopping.

$H_1$3: There is significant relation between place of living of respondents with regard to consideration of perceived ease of use in online shopping.

**Table 5.54**

**Age, Income and Place of Living Wise Comparison with Perceived Ease of Use.**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.8158 | 3.063 | .048 | Significant |
| | 25-35 | 217 | 3.8321 | | | |
| | Above 35 | 50 | 3.7622 | | | |
| | Total | 384 | 3.8180 | | | |
| Income | 20000-40000 | 216 | 3.8200 | 1.122 | .327 | Not Significant |
| | 40000-60000 | 153 | 3.8090 | | | |
| | Above 60000 | 15 | 3.8815 | | | |
| | Total | 384 | 3.8180 | | | |
| Place of Living | North | 128 | 3.8046 | 8.520 | .000 | Significant |
| | Central Kerala | 128 | 3.7768 | | | |
| | South | 128 | 3.8682 | | | |
| | Total | 384 | 3.8180 | | | |

*Source: Survey data, Significance level at 5%.*

The age and place of living wise comparison of the respondents, on inducing them to online purchase of technological products with regard to perceived ease of use, table 5.54 shows that the p value of these demographic factors .048 and .000 are showing significance at 5% level.

The mean scores of 16-25 age group is 3.8158, age group 25-35 is 3.8321 and above 35 age group is 3.7622. The One-Way ANOVA f test shows the p value less than 5% and it reveals that there is significant relation in the consideration of perceived ease of use by different age groups on inducing them to purchase online. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between the age of the respondents with regard to the perceived ease of use in online shopping is accepted. A further analysis of age of the respondents with Tukey Post Hoc Test for Multiple comparisons to check which age category has

more concern in considering the perceived ease of use more compared to other age groups.

**Table 5.55**

**Post Hoc Multiple Comparisons- Age**

Dependent Variable- PEU

| Age | Age | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 16-25 | 25-35 | -.01629 | .02067 | .711 |
| | >35 | .05354 | .03045 | .185 |
| 25-35 | 16-25 | .01629 | .02067 | .711 |
| | >35 | .06983* | .02827 | .037 |
| >35 | 16-25 | -.05354 | .03045 | .185 |
| | 25-35 | -.06983* | .02827 | .037 |

*Source: Survey data, Significance level at 5%.*

From the above multiple comparisons table it is clear that the mean value of age group above 35 years (3.7622) is the least mean score compared to other age group of the study. The multiple comparisons table shows that it is significantly different from the mean value of 25-35 age groups. It can be concluded that compared to the above 35 age group, 25-35 age group consumers in Kerala are considering ease of use in online shopping as a strong factor which influence the online purchase intention of technological products.

## Level of Education and Occupation Wise Comparison with Perceived Ease of Use

A further comparison the construct perceived ease of use is made with regard to demographic factors education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between the level of education of the respondents with regard to the consideration of perceived ease of use in online shopping.

$H_1$1: There is significant relation between the levels of education of respondents with regard to consideration of perceived ease of use in online shopping.

$H_0$ 2: There is no significant relation between occupation of respondents with regard to consideration of perceived ease of use in online shopping.

$H_1$ 2: There is significant relation between occupations of respondents with regard to consideration of perceived ease of use in online shopping.

The result is presented in table 5.56 below;

**Table 5.56**

**Level of Education and Occupation Wise Comparison with Perceived Ease of Use**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.7716 | 2.198 | .088 | Not significant |
| | Graduation | 264 | 3.8325 | | | |
| | PG | 41 | 3.8103 | | | |
| | Other | 25 | 3.7778 | | | |
| | Total | 384 | 3.8180 | | | |
| Occupation | Govt./Public | 58 | 3.8391 | 1.040 | .394 | Not Significant |
| | Private | 158 | 3.7989 | | | |
| | Business | 33 | 3.7946 | | | |
| | Student | 105 | 3.8370 | | | |
| | Domestic affairs | 9 | 3.8765 | | | |
| | NRI's | 21 | 3.8201 | | | |
| | Total | 384 | 3.8180 | | | |

*Source: Survey data, Significance level at 5%.*

The comparison of demographic factors, level of education and occupation with perceived ease of use on influencing the respondents to purchase technological products online, the table reveals that the mean values of different categories of the education and occupation of respondents are not significantly different with each other. The result of One-Way ANOVA test shows that the difference in the mean value of different educational qualified respondents and respondents who have different occupation are negligible and it has no statistical significance at 5% significant level as the P value is .088 and .394 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the level of education of the respondents and the occupation of the respondents with regard to the perceived ease of use in online shopping is accepted. It can be concluded that, irrespective of the level of education and occupation, the online consumers in Kerala are considering perceived ease of use and it has a positive influence in the online purchase intention of technological products.

## 5. Perceived Usefulness.

Perceived usefulness means the degree to which a person believes that the usage of a particular system or device would help to accelerate his personal growth and would improve his job performance. As online shopping is comparatively a new mode of shopping, purchase decisions of the consumers are also influenced by the usefulness of web shopping. An analysis is made to know how the usefulness of online shopping influences the online purchase of consumers based on their demographic characteristics.

## Gender, Marital Status and Area of Residence Wise Comparisons with Perceived Usefulness.

For the purpose of comparing the construct ‘perceived usefulness’ with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to the consideration of perceived usefulness in online shopping of technological products.

$H_1$1: There is significant relation between male and female respondents with regard to the consideration of perceived usefulness in online shopping of technological products.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to the consideration of perceived usefulness in online shopping of technological products.

$H_1$ 2: There is significant relation between unmarried and married respondents with regard to the consideration of perceived usefulness in online shopping of technological products.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to the consideration of perceived usefulness in online shopping of technological products

$H_1$ 3: There is significant relation between rural and urban respondents with regard to the consideration of perceived usefulness in online shopping of technological products.

Independent t test is used to study the significance of difference in the mean scores of various demographic characteristics of the respondents. The result is presented in the table 5.57.

**Table 5.57**

**Gender, Marital Status and Area of Residence Wise Comparisons with Perceived Usefulness.**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.5463 | .995 | .321 | Not Significant |
| | Female | 40 | 3.5146 | | | |
| | Total | 384 | 3.5430 | | | |
| Marital status | Single | 131 | 3.5242 | -1.391 | .165 | Not Significant |
| | Married | 253 | 3.5527 | | | |
| | Total | 384 | 3.5430 | | | |
| Area of Residence | Rural | 148 | 3.5597 | 1.362 | .174 | Not significant |
| | Urban | 236 | 3.5325 | | | |
| | Total | 384 | 3.5430 | | | |

*Source: Survey data, Significance level at 5%.*

The gender wise, marital status wise and area of residence wise comparison of perceived usefulness on inducing the respondents to purchase online, the table clearly shows that there is no significant relation among these demographic characteristics of the respondents. The difference in the mean values of male and female respondents, single and married respondents, rural and urban respondents is negligible. Statistically it has no significance at 5% level of significance as the p values of these demographic characteristics of the respondents are .321, .165 and .174 respectively. Hence it can be concluded that in all the cases the null hypothesis, there is no significant relation between male and female respondents, unmarried and married respondents and rural and urban respondents with regard to the consideration of perceived usefulness in online shopping, is accepted.

## Age, Income and Place of Living Wise Comparison with Perceived Usefulness

For the purpose of comparing the construct ‘perceived usefulness’ with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between age of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_1$1: There is significant relation between age of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_0$ 2: There is no significant relation between income of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_1$2: There is significant relation between income of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_0$ 3: There is no significant relation between place of living of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_1$3: There is significant relation between place of living of the respondents with regard to consideration of perceived usefulness in online shopping.

One way anova is used to study the significance of the difference in the mean scores of various demographic characteristics of the respondents. The result is presented in the table 5.58

**Table 5.58**

**Age, Income and Place of Living Wise Comparison with Perceived Usefulness.**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.5221 | 3.055 | .058 | Not Significant |
| | 25-35 | 217 | 3.5634 | | | |
| | Above 35 | 50 | 3.5033 | | | |
| | Total | 384 | 3.5430 | | | |
| Income | 20000-40000 | 216 | 3.5370 | .697 | .499 | Not Significant |
| | 40000-60000 | 153 | 3.5550 | | | |
| | Above 60000 | 15 | 3.5056 | | | |
| | Total | 384 | 3.5430 | | | |
| Place of Living | North | 128 | 3.5500 | 1.016 | .363 | Not Significant |
| | Central Kerala | 128 | 3.5212 | | | |
| | South | 128 | 3.5536 | | | |
| | Total | 384 | 3.5430 | | | |

*Source: Survey data, Significance level at 5%.*

The age wise, income wise and place of living wise comparison of perceived usefulness on inducing the respondents to purchase online, table 5.58 clearly shows that there is no significant relation among these demographic factors of the respondents. The difference in the mean value of these demographic factors is negligible. Statistically it has no significance at 5% level of significance as the p values are .058, .499 and .363 respectively. In all the cases the following null hypotheses are accepted. There is no significant relation between the age of the respondents with regard to the consideration of perceived usefulness in online shopping, there is no significant relation between the income of the respondents with regard to the consideration of perceived usefulness in online shopping and there is no significant relation between the place of living of the respondents with regard to the consideration of perceived usefulness in online shopping.

## Level of Education and Occupation Wise Comparison with Perceived Usefulness

A further study is made to compare the construct 'perceived usefulness' with regard to the demographic factors education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis are formulated;

$H_0$ 1: There is no significant relation between level of education of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_1$1: There is significant relation between level of education of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_0$ 2: There is no significant relation between occupation of the respondents with regard to consideration of perceived usefulness in online shopping.

$H_1$ 2: There is significant relation between occupation of the respondents with regard to consideration of perceived usefulness in online shopping.

One way anova is used to study the significance of difference in the mean scores of demographic factors. The result is presented in table 5.59

**Table 5.59**
**Level of Education and Occupation Wise Comparison with Perceived Usefulness**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.5386 | .361 | .781 | Not significant |
| | Graduation | 264 | 3.5489 | | | |
| | PG | 41 | 3.5183 | | | |
| | Other | 25 | 3.5300 | | | |
| | Total | 384 | 3.5430 | | | |
| Occupation | Govt./Public | 58 | 3.5560 | .515 | .765 | Not Significant |
| | Private | 158 | 3.5343 | | | |
| | Business | 33 | 3.5328 | | | |
| | Student | 105 | 3.5397 | | | |
| | Domestic affairs | 9 | 3.5556 | | | |
| | NRI's | 21 | 3.5992 | | | |
| | Total | 384 | 3.5430 | | | |

*Source: Survey data, Significance level at 5%.*

Here the comparison of demographic factors, level of education and occupation with perceived usefulness on influencing the respondents to purchase technological products online, the table reveals that the mean value of different categories of level of education and occupation of respondents are not significantly different with each other. The relation in the mean value of different educationally qualified respondents and respondents who have different occupation are negligible and it has no statistical significance at 5% significant level as the P values are .781 and .765 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the education of the respondents with regard to the perceived usefulness in online shopping and there is no significant relation between the occupation of the respondents with regard to the perceived usefulness in online shopping is accepted. It can be concluded that, irrespective of the level of education and occupation, the online consumers in Kerala are considering perceived usefulness and it has a positive influence in the online purchase intention of technological products.

## 6. Customer Experience

Past experiences of consumers play a vital role in future decisions. In online shopping the peoples of Kerala have only limited experience. This experience may vary according to their demographic relations. An analysis is made to check how the experience of the consumers in online shopping affects their purchase intention based on their demographic relations.

## Gender, Marital Status and Area of Residence Wise Comparison with Customer Experience.

For the purpose of comparing the construct customer experience with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to the consideration of customer experience in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to the consideration of customer experience in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to consideration of customer experience in online shopping.

$H_1$ 2: There is significant relation between unmarried and married respondents with regard to consideration of customer experience in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to consideration of customer experience in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to consideration of customer experience in online shopping.

Independent t test is used to study the significance of difference in the mean scores of demographic factors. The result is presented in the table 5.60

**Table 5.60**

**Gender, Marital Status and Area of Residence Wise Comparison with Customer Experience.**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.7982 | 2.599 | .010 | Significant |
| | Female | 40 | 3.7229 | | | |
| | Total | 384 | 3.7904 | | | |
| Marital status | Single | 131 | 3.8003 | .798 | .426 | Not Significant |
| | Married | 253 | 3.7852 | | | |
| | Total | 384 | 3.7904 | | | |
| Area of Residence | Rural | 148 | 3.8226 | 2.893 | .004 | significant |
| | Urban | 236 | 3.7701 | | | |
| | Total | 384 | 3.7904 | | | |

*Source: Survey data, Significance level at 5%.*

The above statistical table shows that in the case of gender wise and area of residence wise comparison, there is significant relation among the male and female

and rural and urban respondents in the consideration of experience in online purchase as an inducing factor for making online purchase of technological products. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between male and female respondents and rural and urban respondents with regard to the consideration of customer experience in online shopping are accepted at 5% significance level. The mean score of male respondents 3.7982 is higher than the mean score of female respondents 3.7229 and the mean score of rural people 3.8226 is higher than the mean score of urban people 3.7701 on considering customer experience on inducing them to purchase online. This difference in the mean scores is statistically significant with its p value .010, .004 respectively, derived through independent sample t test.

The marital status wise comparison of customer experience on inducing the respondents to purchase online, the table clearly reveals that there is no significant relation among these demographic factors of the respondents. The difference in the mean value of unmarried and married respondents is negligible. Statistically it has no significance at 5% level of significance as the p value is .426. Hence, the null hypothesis, there is no significant relation between unmarried and married respondents with regard to the consideration of customer experience in online shopping is accepted.

## Age, Income and Place of Living Wise Comparison with Customer Experience

Here for the purpose of comparing the construct customer experience with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis are formulated;

$H_0$ 1: There is no significant relation between age of the respondents with regard to consideration of customer experience in online shopping.

$H_1$1: There is significant relation between age of the respondents with regard to consideration of customer experience in online shopping.

$H_0$ 2: There is no significant relation between income of the respondents with regard to consideration of customer experience in online shopping.

$H_1$2: There is significant relation between income of the respondents with regard to consideration of customer experience in online shopping.

$H_0$ 3: There is no significant relation between place of living of the respondents with regard to consideration of customer experience in online shopping.

$H_1$3: There is significant relation between place of living of the respondents with regard to consideration of customer experience in online shopping.

One way anova and post hoc tests are used to study the significance of difference in the mean scores of demographic factors. The results of the tests are presented in table 5.61

**Table 5.61**

**Age, Income and Place of Living Wise Comparison with Customer Experience**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.7877 | .021 | .979 | Not Significant |
| | 25-35 | 217 | 3.7919 | | | |
| | Above 35 | 50 | 3.7900 | | | |
| | Total | 384 | 3.7904 | | | |
| Income | 20000-40000 | 216 | 3.7724 | 4.219 | .015 | Significant |
| | 40000-60000 | 153 | 3.8061 | | | |
| | Above 60000 | 15 | 3.8889 | | | |
| | Total | 384 | 3.7904 | | | |
| Place of Living | North | 128 | 3.8000 | 1.699 | .184 | Not Significant |
| | Central Kerala | 128 | 3.8045 | | | |
| | South | 128 | 3.7674 | | | |
| | Total | 384 | 3.7904 | | | |

*Source: Survey data, Significance level at 5%.*

The income wise comparison of the respondents, on inducing them to online purchase of technological products with regard to customer experience, the table

shows that there is significant relation among the respondents at 5% significance level.

The mean score of 20000-40000, income group is 3.7724; 40000-60000 income group is 3.8061and above 60000 income group is 3.8889. The One-Way ANOVA f test shows the p value less than 5% and it reveals that there is significant relation in the consideration of customer experience by different income groups on inducing them to purchase online. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between income of the respondents with regard to customer experience in online shopping is accepted. A further analysis is made with the income of the respondents with Tukey Post Hoc Test for Multiple comparisons to check which income category is considering the customer experience more compared to other income groups.

**Table 5.62**

**Post Hoc Tests- Income**

**Multiple Comparisons**

Dependant variable: Customer Experience

| Age | Income | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 20000-40000 | 40000-60000 | -.03372 | .01831 | .157 |
| | Above 60000 | -.11651 | .04627 | .033 |
| 40000-60000 | 20000-40000 | .03372 | .01831 | .157 |
| | Above 60000 | -.08279 | .04688 | .183 |
| Above 60000 | 20000-40000 | .11651 | .04627 | .033 |
| | 40000-60000 | .08279 | .04688 | .183 |

*Source: Survey data, Significance level at 5%.*

Here, from the above multiple comparisons table, it is clear that the mean value of income group 20000-40000 (3.7724) is the least mean score compared to other age group of the study. The multiple comparisons table shows that it is significantly different from the mean value of above 60000 income groups. So, it can be concluded that compared to the 20000-40000 income group, above 60000

income group consumers in Kerala are considering their experience in online shopping as a strong factor which influence the online purchase intention of technological products.

The age wise and place of living wise comparison of customer experience on inducing the respondents to purchase online, the table clearly shows that there is no significant relation among these demographic factors of the respondents. The difference in the mean value of these demographic factors is negligible. Statistically it has no significance at 5% level of significance as the p value is .979 and .184 respectively. Hence, here in these cases the null hypothesis, there is no significant relation between age of the respondents with regard to consideration of customer experience in online shopping and there is no significant relation between the place of living of the respondents with regard to the consideration of customer experience in online shopping is accepted.

## Level of Education and occupation wise comparison with customer experience

It is attempted to compare the construct 'customer experience' with regard to the demographic factors, level of education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between level of education of the respondents with regard to consideration of customer experience in online shopping.

$H_1$1: There is significant relation between level of education of the respondents with regard to consideration of customer experience in online shopping.

$H_0$ 2: There is no significant relation between occupation of the respondents with regard to consideration of customer experience in online shopping.

$H_1$ 2: There is significant relation between occupation of the respondents with regard to consideration of customer experience in online shopping.

One way anova test is used to study the significance of difference in the mean scores of demographic factors. The result is presented in table 5.63 below;

**Table 5.63**

**Level of Education and occupation wise comparison with customer experience**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.7762 | 2.686 | .056 | Not significant |
| | Graduation | 264 | 3.8059 | | | |
| | PG | 41 | 3.7378 | | | |
| | Other | 25 | 3.7433 | | | |
| | Total | 384 | 3.7904 | | | |
| Occupation | Govt./Public | 58 | 3.7529 | 1.283 | .270 | Not Significant |
| | Private | 158 | 3.7885 | | | |
| | Business | 33 | 3.7652 | | | |
| | Student | 105 | 3.8103 | | | |
| | Domestic affairs | 9 | 3.8426 | | | |
| | NRI's | 21 | 3.8254 | | | |
| | Total | 384 | 3.7904 | | | |

*Source: Survey data, Significance level at 5%.*

The comparison of demographic factors, level of education and occupation with customer experience on influencing the respondents to purchase technological products online, table 5.63 reveals that the mean value of different categories of the level of education and occupation of respondents are not significantly different with each other. The difference in the mean value of different educationally qualified respondents and respondents who have different occupation are negligible and it has no statistical significance at 5% as the P value is .056 and .270 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the education of the respondents and occupation of the respondents with regard to customer experience in online shopping are accepted.

## 7. Personality of the Consumer

How a person reacts to a particular situation or system shows his personality. As online shopping is a new mode of shopping, personality of the consumer also plays a vital role in adapting this style of shopping. Personality may vary from person to person. The demographic differences of consumers may have huge influence on their personality. An analysis is made to study the relationship of personality of the consumers and intention to purchase online based on their demographic differences.

## Gender, Marital Status and Area of Residence Wise Comparison with Personality of the Consumers.

For the purpose of comparing the construct 'personality of the consumer' with regard to gender, marital status and area of residence of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between male and female respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$1: There is significant relation between male and female respondents with regard to consideration of personality of the consumer in online shopping.

$H_0$ 2: There is no significant relation between unmarried and married respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$ 2: There is significant relation between married and unmarried respondents with regard to consideration of personality of the consumer in online shopping.

$H_0$ 3: There is no significant relation between rural and urban respondents with regard to consideration of personality of the consumer in online shopping

$H_1$ 3: There is significant relation between rural and urban respondents with regard to consideration of personality of the consumer in online shopping.

Independent t test is used to study the significance of difference in the mean scores of demographic factors. The result is presented in table 5.64 below;

**Table 5.64**

**Gender, Marital Status and Area of Residence Wise Comparison with Personality of the Consumers.**

| Independent Variable | | N | Mean | t | P Value | Sig. |
|---|---|---|---|---|---|---|
| Gender | Male | 344 | 3.7558 | -.363 | .716 | Not Significant |
| | Female | 40 | 3.7792 | | | |
| | Total | 384 | 3.7582 | | | |
| Marital status | Single | 131 | 3.8117 | 1.969 | .050 | Not Significant |
| | Married | 253 | 3.7306 | | | |
| | Total | 384 | 3.7582 | | | |
| Area of Residence | Rural | 148 | 3.7128 | -1.840 | .067 | Not significant |
| | Urban | 236 | 3.7867 | | | |
| | Total | 384 | 3.7582 | | | |

*Source: Survey data, Significance level at 5%.*

The gender wise, marital status wise and area of residence wise comparison of personality of the consumer on inducing the respondents to purchase online, the table reveals that there is no significant relation among these demographic factors of the respondents. The difference in the mean values of male and female respondents, single and married respondents, rural and urban respondents is negligible. Statistically it has no significance at 5% level of significance as the p values are .716, .050 and .067 respectively.

In all the cases the null hypothesis, there is no significant relation between male and female respondents, unmarried and married respondents and rural and urban respondents with regard to the consideration of personality of the consumer in online shopping are accepted.

## Age, Income and Place of Living Wise Comparison with Personality of the Consumer

For the purpose of comparing the research construct 'personality of the consumer' with regard to the demographic factors age, income and place of living of the respondents, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between age of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$1: There is significant relation between age of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_0$ 2: There is no significant relation between income of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$2: There is significant relation between the income of the respondents with regard to the consideration of personality of the consumer in online shopping.

$H_0$ 3: There is no significant relation between place of living of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$3: There is significant relation between place of living of the respondents with regard to consideration of personality of the consumer in online shopping.

One way anova and post hoc tests are conducted to study the significance of difference in the mean scores of demographic factors. The results of the tests are presented in table 5.65 below;

**Table 5.65**

**Age, Income and Place of Living Wise Comparison with Personality of the Consumer**

| Independent Variable | | N | Mean | F | P Value | Sig. |
|---|---|---|---|---|---|---|
| Age | 16-25 | 117 | 3.8120 | 1.858 | .157 | Not Significant |
| | 25-35 | 217 | 3.7419 | | | |
| | Above 35 | 50 | 3.7033 | | | |
| | Total | 384 | 3.7582 | | | |
| Income | 20000-40000 | 216 | 3.7940 | 3.761 | .024 | Significant |
| | 40000-60000 | 153 | 3.7288 | | | |
| | Above 60000 | 15 | 3.5444 | | | |
| | Total | 384 | 3.7582 | | | |
| Place of Living | North | 128 | 3.6529 | 9.675 | .000 | Significant |
| | Central Kerala | 128 | 3.7955 | | | |
| | South | 128 | 3.8450 | | | |
| | Total | 384 | 3.7904 | | | |

*Source: Survey data, Significance level at 5%.*

The age wise comparison with personality of the consumer on inducing the respondents to purchase online, the table reveals that there is no significant relation among this demographic factors of the respondents. The difference in the mean values of different age groups are negligible as the p value .157 is well above 5 percent level of significance. Hence the null hypothesis is accepted.

The income and place of living wise comparison of the respondents, on inducing them to online purchase of technological products with regard to personality of the consumer, the table shows that there is significant relation among the respondents in considering their personality at 5% significance level.

The mean scores of 20000-40000 income group is 3.7940, 40000-60000 income group is 3.7288 and above 60000 income group is 3.5444. The mean score of respondents of north region is 3.6529, central part of Kerala 3.7955 and southern

region is 3.8450. One-Way ANOVA f test shows the p value less than 5% (.024 and .000 respectively) and it reveals that there is significant relation in the consideration of personality of the consumer by different income groups and people of different parts of Kerala on inducing them to purchase online. Hence the null hypothesis is rejected and the alternate hypothesis, there is significant relation between the income of the respondents with regard to the personality of the consumer in online shopping and there is significant relation between the places of living of the respondents with regard to the consideration of personality of the consumer in online shopping is accepted.

Further analysis is made to test the income of the respondents with Tukey Post Hoc Test for Multiple comparison to check which income category have considering the personality of the consumer more compared to other income groups.

**Table 5.66**

**Post Hoc Tests- Income**

**Multiple Comparisons**

Dependant variable: Personality of the consumer

| Income | Income | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| 20000-40000 | 40000-60000 | .06522 | .04031 | .239 |
| | Above 60000 | .24954* | .10185 | .039 |
| 40000-60000 | 20000-40000 | -.06522 | .04031 | .239 |
| | Above 60000 | .18431 | .10320 | .176 |
| Above 60000 | 20000-40000 | -.24954* | .10185 | .039 |
| | 40000-60000 | -.18431 | .10320 | .176 |

*Source: Survey data, Significance level at 5%.*

From the above multiple comparisons table it is clear that the mean relation of income group 20000-40000 to 40000-60000 and 40000-60000 to Above 60000 are not significant but the mean relation of income group 20000-40000 is significantly differs from the Above 60000 income groups as the p value shows a

value of below 5% (.039). So, it can be concluded that for the Above 60000 income groups, their personality does not influence much on their online shopping of technological products.

The relation in the place of living of the respondents have also significantly influencing them in online purchase of technological products. The post hoc test of multiple comparisons table shows that the mean relation of north region to Central part of Kerala and southern region is significant at 5% level of significance as the p value is .008 and .000. The personality factor does not influence much the people of north region on inducing them to purchase online compared to the people who were residing at Central part of Kerala and southern region.

**Table 5.67**
**Post Hoc Tests- Place of Living**
**Multiple Comparisons**
Dependant variable: Personality of the consumer

| Place of Living | Place of Living | Mean Relation | Std. Error | Sig. |
|---|---|---|---|---|
| North | Central part of Kerala | -.14258* | .04751 | .008 |
| | South | -.19209* | .04548 | .000 |
| Central part of Kerala | North | .14258* | .04751 | .008 |
| | South | -.04951 | .04877 | .568 |
| South | North | .19209* | .04548 | .000 |
| | Central part of Kerala | .04951 | .04877 | .568 |

*Source: Survey data, Significance level at 5%.*

## Level of Education and Occupation Wise Comparison with Personality of the Consumer

Further analysis is made to compare the construct 'personality of the consumer' with regard to the demographic factors level of education and occupation of the respondents. For this purpose, the following null hypothesis and alternate hypothesis were formulated;

$H_0$ 1: There is no significant relation between levels of education of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$1: There is significant relation between levels of education of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_0$ 2: There is no significant relation between occupation of the respondents with regard to consideration of personality of the consumer in online shopping.

$H_1$ 2: There is significant relation between occupation of the respondents with regard to consideration of personality of the consumer in online shopping.

One way anova test is conducted to study the significance of difference in the mean scores of demographic factors. The result is presented in table 5.68 below;

**Table 5.68**

**Education and Occupation Wise Comparison with Personality of the Consumer**

| **Independent Variable** | | **N** | **Mean** | **F** | **P Value** | **Sig.** |
|---|---|---|---|---|---|---|
| Education | Plus Two | 54 | 3.7654 | 1.536 | .205 | Not significant |
| | Graduation | 264 | 3.7765 | | | |
| | PG | 41 | 3.7195 | | | |
| | Other | 25 | 3.6133 | | | |
| | Total | 384 | 3.7582 | | | |
| Occupation | Govt./Public | 58 | 3.6753 | 1.838 | .104 | Not Significant |
| | Private | 158 | 3.7574 | | | |
| | Business | 33 | 3.7424 | | | |
| | Student | 105 | 3.8365 | | | |
| | Domestic affairs | 9 | 3.6111 | | | |
| | NRI's | 21 | 3.6905 | | | |
| | Total | 384 | 3.7582 | | | |

*Source: Survey data, Significance level at 5%.*

The comparison of demographic factors, level of education and occupation with personality of the consumer on influencing the respondents to purchase technological products online, the table reveals that the mean value of different categories of level of education and occupation of respondents are not significantly different with each other. The relation in the mean value of different educationally qualified respondents and respondents who have different occupation are negligible and it has no statistical significance at 5% significant level as the P values are .205 and .104 respectively. Hence, in both cases the null hypothesis, there is no significant relation between the education of the respondents and occupation of the respondents with regard to the personality of the consumer in online shopping are accepted.

## 5.7. Comparison of Research Constructs in Inducing Buying Online

As discussed in the earlier part, seven research constructs have been developed to study the online purchase intention of technological products among e shopping consumers in Kerala. A number of variables have been identified and tested with various statistical tools under each constructs and their influence on online purchase intention have studied in detail in the previous parts of this study. Now an attempt is made to compare these research constructs with its mean and standard deviation and assign ranks on its ability to influence the purchase of technological products among e shopping consumers in Kerala.

**Table 5.69**
**Comparison of Research Constructs in Inducing Buying Online**

| Sl No. | Research construct | N | Mean | Std. Deviation | Rank |
|---|---|---|---|---|---|
| 1. | Company Attribute | 384 | 4.034 | 0.224 | 1 |
| 2. | Perceived Ease of Use | 384 | 3.818 | 0.181 | 2 |
| 3. | Customer Experience | 384 | 3.790 | 0.175 | 3 |
| 4. | Personality of the Customer | 384 | 3.758 | 0.384 | 4 |
| 5. | Product Attribute | 384 | 3.675 | 0.195 | 5 |
| 6. | Perceived Usefulness | 384 | 3.543 | 0.191 | 6 |
| 7. | Perceived Risk | 384 | 3.240 | 0.278 | 7 |

*Source: Survey data.*

The table shows that, considering the total effect towards the purchase when buying technological products online, the construct company attribute (CA) was found to be the strongest influencing factor with highest mean value of 4.034, followed by perceived ease of use (PEU), customer experience (CE), personality of the consumer (PC), product attributes (PCA), perceived usefulness (PU) and perceived risk (PR) respectively.

## 5.8. Major Suggestions Pointed Out by the Respondents in the Survey.

The respondents are asked to make their suggestions and opinions other than what they are asked in the survey. Separate column are given to them to make their comments. Some of the major suggestions pointed out by most of the respondents which are relevant in this study are given below in table 5.70.

**Table 5.70**

**Suggestions of the Respondents**

| Sl. No. | Suggestion | frequency |
|---|---|---|
| 1. | Government should take necessary steps to introduce more flexible data pack. | 235 |
| 2. | Government should take necessary steps to overcome the network issues | 228 |
| 3. | Government should take necessary steps to reduce the price of computers, mobile phones and internet modem. | 135 |
| 4. | Government should take necessary steps to regulate the fraudulent sites. | 93 |

*Source: Survey Data.*

## 5.9. Conclusion

This chapter presented and explained in detail about the analysis done based on the collected data through online and offline survey. SPSS software was used to conduct the necessary analysis for achieving the objectives. All the valid responses were entered in to an excel sheet and uploaded in to the SPSS. The objectives of the study were tested in two parts of this chapter. The first part of this chapter analyzes the online experience of the respondents based on the online spending habits, number of online purchases made in a year, device used to make online purchase and the period the consumers have to wait for the delivery of the products. The second part of this chapter analyzes the relative importance of influencing factors of online purchase in Kerala. The Frequency and percentage of the data based on the demographic factors of the respondents are extracted first. Crosstab analysis is used to present the data to show the interaction effect between variables. A total of seventy variables are tested under seven constructs in this chapter. The relative importance of each variable under different constructs is presented based on their mean values. The research constructs are checked with the demographic factors of the respondents to find its effect on online purchase decision. The significance of the mean relation is interpreted with the help of chi square test, independent sample t test, one way anova, binomial test and robust test of equality of means. The research constructs are ranked on the basis of their mean values to show its influence in online purchase among e shopping consumers in Kerala. The results of this analysis are presented and discussed in detail in the next chapter as findings and suggestions.

## References

Elhance, D. L., Veena Elhance & Aggarwal, B. M. (2005). *Fundamentals of Statistics*. Allahabad: Kitab Mahal.

Gupta, S. P. (2012). *Statistical methods*. New Delhi: Sulthan Chand & Sons Educational Publishers.

Hooda, R. P. (2008). *Statistics for business and economics*. New Delhi: Macmillan India Limited.

Joseph, F. Healy (2005). *Statistic: A tool for social research*. Belmont: Wadsworth Cengage Learning.

Kiran Pandya, smruti Bulsari, & Sanjay Sinha (2014). *SPSS in simple steps*. New Delhi: Dreamtech Press.

Kothari, C. R. (1997). *Quantitative Techniques*. New Delhi: Vikas Publishing House.

Richard, L. Levin, & David, S. Rubin (1997). *Statistics for management*. New Delhi. Prentice Hall of India Private Limited.

Robert Bickel (2008). *Multilevel analysis for applied research*. New York: The Guilford Press.

Sancheti, D. C., & Kapoor, V. K. (1995). *Statistics: Theory, methods and applications*. New Delhi: Sulthan chand & Sons.

Santhosh Gupta (1997). *Research Methodology and statistical techniques*. New Delhi: Deep and Deep Publishers Private Limited.

Srivastava, U. K., Shenoy, G. V., & Sharma, S. C. (1997). *Quantitative techniques for managerial decisions.* New Delhi: New Age International Private Limited.

# Chapter 6

# Summary, Findings, Suggestions and Conclusion

- **Introduction**
- **Summary of the Study**
- **Findings of the study**
- **Suggestions of the Study**
- **Scope of Further Research**
- **Conclusions**

## 6.1. Introduction

This chapter, presents a brief summary of the research study, major findings drawn from the data analysis reported in the previous chapter, suggestions based on the research findings and finally briefed the conclusion of the study on various factors influencing online shopping intention of technological products in Kerala. This chapter also discusses the scope for further research.

## 6.2 Summary of the Study

Online shopping is a fast growing mode of retailing in the modern of world of marketing. It allows a consumer to buy goods and services directly from the seller over the internet by using a web browser. Consumers can easily find their products of interest by putting search in the shopping sites of any of the online vendors. Nowadays hundreds of online retailers are doing business in India including both international and national companies. An online store allows the consumers to browse for various range of products and services offered by it, view the image of the products, specifications and price. A customer gets enough time to compare and judge the products and to make a decision to buy or leave.

A customer must have an access to the internet and a valid mode of payment in order to execute an online transaction. The penetration of internet all over India really helped in the growth of this form of retailing. Now the internet access is very much possible in both rural and urban parts of the country. The speed of internet browsing has also improved a lot and now it reached to 4G level. The emergences of low price smart phones have also boosted the use of internet and thereby online shopping has become popular even among the ordinary consumers.

The study is spread over six chapters. The first chapter provides the basic outline of the research study. This chapter starts with research background which explains the introduction about online marketing and its growth, penetration of internet and gaps in the literature about online marketing studies, research problem and objectives, research methodology, scheme of the study etc. Reasons to select

technological products as the target products for the present research are also reported.

The research problem of the study was developed through the gaps found in the literature and interactions with the online consumers. The major research problem addressed in the study was; *what are the important factors that influence the purchase of technological products among the e shopping consumers in Kerala*.

The specific objectives of the study are:

1. To identify the online shopping procedure and the factors influencing online shopping.
2. To analyze the experience and intention of consumers towards online purchase.
3. Explore the relative importance of factors that encourage or discourage consumers from buying technological products online.
4. To analyze the demographic differences among the online buyers in considering the influencing factors of e shopping.
5. To identify the influence of various devices used in online purchase habits of consumers in Kerala.

The justification for the research is expressed through its theoretical and practical contributions to the world of online marketing in India. The methodology of the study is also presented here in brief. Data are collected from both primary and secondary sources. Both online and offline questionnaire are used for collection of data from the respondents. The limitations of the research are also presented in this section.

The second chapter reviews the available literature about online marketing. Various journals, articles, thesis and dailies are reviewed for the benefit of the study. National and international publications are taken in to consideration as online shopping is an international topic of study. Gaps in the literature were identified here in this section to move forward with this study. The literature review is done on the basis of different aspects of online marketing. Different literature about internet

marketing, its scope and challenges, its penetration in Indian market, online and offline purchase decision making among consumers, online payment issues, characteristics of online buyers and key drivers in Indian online marketing etc. are taken in to consideration. Different behavioral intention theories such as Theory of reasoned action, Theory of planned behavior and Technology acceptance model are also reviewed. Strength and weakness of each theory are identified and finally a new model is developed by using the factor of Technology Acceptance Model (TAM) of Davis together with suitable additional factors derived from the literature was chosen as the basis for this research. Seven constructs namely company attribute, product attribute, perceived risk, perceived ease of use, perceived usefulness, customer experience and personality of the consumer are used to test the relationship with consumers' intention towards buying technological products online in Kerala.

The researcher made an attempt to provide an over view about the online shopping profile in India through the third chapter. The major online shops providing services in India, the online shopping procedures and its steps, and most importantly the safety measures to be taken while making an online purchase are briefly explained. Finally, a brief explanation about the procedure to be followed to set up an online business is also presented in this chapter. Flipkart is taken as a model to explain the online purchase procedure. The steps are discussed in this chapter with screen shots of each window while making the online purchase.

The fourth chapter explains the methodology of the quantitative research, used for collecting the information and analyzing the data. This chapter started with explaining the research design. The researcher came in to a conclusion that descriptive research is the most appropriate design for this study about the online purchase intention of technological products among the e shopping consumers in Kerala. Then this chapter explains the development of the questionnaire to collect data from the respondents and its structuring. The justification about the data collection method both online and offline, used in this study are also discussed in this chapter. Both primary and secondary sources are used to collect the desired information. A questionnaire prepared with Google form is used for online survey

and an offline questionnaire is also prepared to collect primary data from the sample respondents who were users of internet for purchasing technological products online at least once. Secondary data have been collected from different books, journals, periodicals, websites and research publications etc. Sample design and computation of sample size are also explained in detail. Multi stage sampling technique was used for selecting sample consumers. The entire population of Kerala has been divided into three zones i.e.; North, Middle and South. One district has been selected randomly from each zone i.e.; Malappuram from North, Ernakulum from Middle and Trivandrum from South. The study is restricted to an age group of 16 and above under the assumption that these age groups are using internet and technological products more often.

A pilot study was conducted among the respondents to test the reliability of the questionnaire and it is checked with Cronbach's Alfa. A revised questionnaire was then prepared on the basis of the pilot study results. The statistical tools used to test the collected data like chi square test; independent t test, one way anova etc. are also mentioned in this chapter.

The fifth chapter presents the statistical analysis of the collected data based on the objectives set by using appropriate tools and techniques in two parts. The analysis is done with the help of Microsoft Excel and SPSS software. The first part of this chapter analyses the demography of the respondents and their online purchase habits. Gender, age, sex, marital status, education, income, place of living and area of residence of the online buyers of technological products in Kerala are checked here. Crosstab analysis is also used to check the relationship between various demographic factors of the respondents. Chi square tests are used to check the significance at 5% level.

The second part of the analysis is based on the relationship between the demographic factors of the respondents with the research constructs developed. Company attribute, product attribute, perceived risk, perceived usefulness, perceived ease of use, customer experience and personality of the customer are the various constructs developed for this purpose. All variables under each research construct

are also checked separately with the help of mean and standard deviation. Various statistical tools like independent t test, One way Anova, binomial test and robust test of equality of means etc are used to check the result of the study.

The sixth chapter contains a brief summary of the research study by briefing the contents of each chapter. Findings of the study and suggestions based on these findings and conclusions of the study are also reported in this chapter. This chapter also presents the recommendations for further researches in the related area of study.

## 6.3 Findings of the Study

The review of literature and statistical analysis of the data collected from the online consumers through questionnaire survey revealed some interesting and important findings about online purchase of technological products in Kerala. The major findings of the study are classified in to two sections namely

1. General findings.
2. Relative importance of factors that encourage or discourage consumers from buying technological products online.

The findings under each section are briefly pointed out in the following pages of this thesis.

### 6.3.1. General Findings

#### 6.3.1.1. Demographic Influences on Online Purchase in Kerala

- The future of online business in Kerala seems to be very promising.
    - It is found that majority of the online buyers (87%) are aged below 35 years.
    - Students are also showing a considerable amount of interest (21.3%) in this area.
    - Majority of the present online buyers (77.6%) have shown their positive intention and willingness to buy online in future also.

- Majority of the present online buyers are (69.8%) ready to recommend their friends and relatives to buy online.

- The male population of Kerala is showing more interest in buying technological products online (89.6%).
- Level of Education of the consumers plays a vital role in inducing them to purchase online. A major part (79.5%) of online consumers have graduation and above as their educational qualification.
- On the basis of the occupation of the online buyers, those who work in private sector are showing more interest (41.1%) in buying technological products online in Kerala.
- Students are showing more interest in online purchase among the female buyers.
- Magnitude of income of the consumers do not have any influence in buying technological products online.
- The people of north region are showing more interest in online shopping compared to other regions of Kerala.
- Urban people are purchasing more through online shops compared to rural people. It may be because of the availability and speed of the internet and usage of smart phones and laptops.

**6.3.1.2. Device Used to Access the Internet and Making Online Purchase.**

- The emergence and popularity of smart phones have a great influence on online shopping habits among consumers in Kerala. The study reveals that among the online buyers in Kerala, a majority of 61.7% were using their Smartphone for accessing the internet and making online purchase.

- Consumers above 35 years old are preferring laptops for making online purchase.

- The government employees prefer to use their laptops, private sector employees, respondents working abroad, house wives and students are using their smart phones more frequently for online purchase. Business people are

using laptops and smart phones almost in the same manner for online purchase.

#### 6.3.1.3. Time required for Completing an Online Purchase

- Online shoppers take just above half an hour to complete an online purchase in Kerala irrespective of their demographics.
- Female consumers are taking more time to complete an online purchase than male consumers in Kerala.
- The age wise study also reveals that those above 35 years old take more time to complete an online purchase compared to other age groups.

#### 6.3.1.4. Other General Findings

- Majority of the consumers (70.3%) are making their online purchase from their home or any private places except the business people.
- Technological products are the most popular products in online market. Fashion products, travel services and financial services come in the next ranks among the online buyers of Kerala.
- Online shopping habits are showing an increasing trend among the consumers in Kerala. The survey result shows that 69.5% of the online buyers are making more than three shopping a year.
- Mobile, computer and its accessories are the most popular products in the technological product category of online marketing in Kerala.
- An average of eight days is taken to get the delivery of the online products. In the urban area it is only less than seven days, but in rural area it is more than nine days on an average. Region wise, northern region is taking more days to get the delivery of online products compared to the central part of Kerala and southern region.

### 6.3.2. Relative importance of factors that encourage or discourage consumers from buying technological products online.

#### 6.3.2.1. Influence of Company Attribute

- The online consumers are seriously considering all the attributes of the company analyzed in the survey, before making the purchase of technological products through online. The online company which offers delivery of the products at the local place of consumers and familiar to them is the most rated influencing factor under company attribute in online marketing. Consumers are also influenced with the after sale service, physical address and the history of the company before making their purchase.

- There is significant difference among the male and female consumers in the consideration of company attribute as an inducing factor for making online purchase of technological products. The male consumers are keener about company attribute before making online purchase.

- There is no significant difference among the marital status of the online consumers in the consideration of company attribute on inducing purchase online.

- There is no significant difference among the rural and urban consumers in consideration of company attribute on inducing them to purchase online.

- There is significant difference among the age of the consumers in consideration of company attribute. The young consumers in Kerala aged between 25-35 are considering company attribute more as a strong factor which influence the online purchase intention of technological products compared to other age groups.

- There is no significant difference among the online consumers of Southern region, central part of Kerala and northern region in the consideration of company attribute on inducing them to purchase online.

- There is no significant difference between the income, education and occupation of online consumers in the consideration of company attribute on inducing them to purchase online.

**6.3.2.2. Influence of Product Attribute**

- The online consumers are positively influenced by brand name of the product, product offering good value for money, products having latest technology and the product information available in the sites, in online marketing.
- Consumers are not at all attracted by the endorsement of products by the celebrities and also not interested in products which are available only through internet market.
- There is no significant difference between the gender of online consumers in the consideration of product attribute on inducing them to purchase online.
- There is no significant difference between the levels of education of online consumers in the consideration of product attribute on inducing them to purchase online.
- There is no significant difference between the income of online consumers in the consideration of product attribute on inducing them to purchase online.
- There is no significant difference among the rural and urban consumers in the consideration of product attribute on inducing them to purchase online.
- There is no significant difference among the online consumers of Southern region, central part of Kerala and North region in the consideration of product attribute on inducing them to purchase online.
- There is significant difference between marital status of online consumers in considering product attribute on inducing online purchase. Unmarried consumers are showing more interest in the attributes of the product when buying technological products online.

- There is significant difference between age of the consumers in considering product attribute on inducing online purchase. 16-25 age groups are showing more interest in the attributes of the product when making online purchase decision compared to other age groups.

- There is significant difference between the occupation of the consumers in considering product attribute on inducing online purchase. Students and people working abroad are keener about the attributes of online product.

**6.3.2.3. Influence of Risk Factor**

- Online consumers in Kerala are happy with the various option of payment in online shopping especially cash on delivery and they have to pay only the agreed amount of money. They are also happy with the home delivery system.

- Risk factor is one of the serious obstacles in online marketing in Kerala. Consumers are highly concerned about the risk of receiving products different from what is being ordered, receiving product later than expected date, return process if not satisfied with the product, misuse of personal information and security issue in payments through debit cards. Consumers were also not sure about the quality of the product as guaranteed and money back guarantee if not satisfied with the products.

- There is no significant difference between the gender of online consumers in consideration of risk factor on inducing them to purchase online.

- There is no significant difference between the levels of education of online consumers in the consideration of risk factor on inducing them to purchase online.

- There is significant difference between the marital status of online consumers in considering risk factor on inducing online purchase. The unmarried consumers are showing more capacity of bearing risk when buying technological products online.

- There is significant difference between the age of the consumers in considering risk factor on inducing online purchase. 16-25 age groups are showing more courage to bear the online shopping risk when making online purchase decision compared to other age groups.

- There is no significant difference among the rural and urban consumers in the consideration of risk factor on inducing them to purchase online.

- There is significant difference between the levels of income of the consumers in considering risk factor on inducing online purchase. As the income increases the capacity of bearing online purchase risk also increases. Rs 60000/- and above income groups are showing more courage to bear the online shopping risk compared to other income groups.

- There is no significant difference among the online consumers of Southern region, central part of Kerala and North region in the consideration of risk factor on inducing them to purchase online.

- There is significant difference between the occupation of the consumers in considering risk factor on inducing online purchase. Students and people working abroad are showing more courage to bear the online shopping risk compared to other job groups.

#### 6.3.2.4. Influence of Ease of Use of Online Marketing

- The online consumers are very much influenced with the ease of use of the online shopping system. They feel that the online purchase procedure, 'log in' on to home page is simple and easily understandable. They are happy with the information searching system, online ordering lay out, picture display and character font size about the shopping sites.

- The online consumers strongly feel that to go for online purchase, they need enough information about the product in the site to make a positive decision.

- There are no significant differences between the gender of online consumers in the consideration of ease of use of online shopping on inducing them to purchase online.
- There is no significant difference between the levels of education of online consumers in the consideration of ease of use of online shopping on inducing them to purchase online.
- There is no significant difference between the marital status of online consumers in considering ease of use of online shopping on inducing online purchase.
- There is significant difference between the age of the consumers in considering ease of use of online shopping on inducing online purchase. Below 35 age group consumers in Kerala are considering ease of use in online shopping as a strong factor which influence the online purchase intention of technological products.
- There is no significant difference among the rural and urban consumers in Kerala in considering ease of use of online shopping on inducing them to purchase online.
- There is no significant difference between the levels of income of the consumers in considering ease of use of online shopping on inducing online purchase.
- There is significant difference among the online consumers of Southern region, central part of Kerala and North region in the consideration of ease of use of online shopping on inducing them to purchase online.
- There is no significant difference between the occupation of the consumers in considering ease of use of online shopping on inducing online purchase.

### 6.3.2.5. Influence of Online Marketing Usefulness.

- The online consumers in Kerala are satisfied with the usefulness of online shopping system. Convenient shopping, from where ever and when ever they wish and they do not want to waste time for travelling to shops are the most useful and inducing factors in online marketing for the consumers to buy online.
- Online consumers are also very much influenced with the usefulness of online marketing like, the rich information provided, the discounts and lower price for products. Consumers strongly feel that online shops offering wide range of technological products of different companies.
- There are no significant differences between gender of online consumers in the consideration of usefulness of online shopping on inducing them to purchase online.
- There is no significant difference between the levels of education of online consumers in the consideration usefulness of online shopping on inducing them to purchase online.
- There is no significant difference between the marital status of online consumers in considering usefulness of online shopping on inducing online purchase.
- There is no significant difference between the age of consumers in considering usefulness of online shopping on inducing online purchase.
- There is no significant difference among rural and urban consumers in Kerala in considering usefulness of online shopping on inducing them to purchase online.
- There is no significant difference between the levels of income of the consumers in considering usefulness of online shopping on inducing online purchase.

- There is no significant difference among the online consumers of Southern region, central part of Kerala and North region in consideration of usefulness of online shopping on inducing them to purchase online.

- There is no significant difference between occupation of the consumers in considering usefulness of online shopping on inducing online purchase.

**6.3.2.6. Influence of Online Experience**

- The past customer experience in online shopping shows a positive support to the future decision of going online for buying technological products in Kerala.

- They find it easy to compare the desired and economical products in online shops; find newly launched products which are not available in their local market and also feel that the online shopping helps them to save their shopping time.

- Consumers have the experience that, expertise in english language is not at all a barrier in doing online shopping. Consumers are very much satisfied with the time they were getting in online shopping before taking a decision of purchase.

- They do not have any hard feeling if not making any purchase even after spending more time in online shopping site. They do not have to bother about the comments of sales man.

- The consumers are not satisfied with the demonstration of product like in the traditional marketing and also about the price bargaining.

- There is significant difference among the male and female consumers in considering online experience on inducing online purchase. Male consumers are more satisfied with the online experience.

- There is no significant difference among the unmarried and married consumers in considering online shopping experience on inducing online purchase.
- There is significant difference among the rural and urban consumers in considering online experience on inducing online shopping. The rural consumers are feeling better experience in online shopping.
- There is no significant difference among the age of consumers in considering online shopping experience on inducing online purchase.
- There is significant difference among the level of income of consumers in considering online experience on inducing online shopping. The higher income groups are more satisfied with online experience.
- There is no significant difference among the consumers of Southern region, Central part of Kerala and North region in considering online shopping experience on inducing online purchase.
- There is no significant difference among the level of education of the consumers in considering online shopping experience on inducing online purchase.
- There is no significant difference among the occupational difference of the consumers in considering online shopping experience on inducing online purchase.

**6.3.2.7. Influence of Personality of the Consumer**

- Personality of the consumers is positively influencing online shopping among the consumers of Kerala. The people in Kerala who are trendy and fashionable, good in English language, have the skill in surfing the internet and doing it frequently and like to use latest technology are a high possibility in going online for purchase of technological products

- There is significant difference between the levels of income of the consumers in considering personality on inducing them to purchase online. For the >60000 income groups, their personality does not influence much on their online shopping of technological products.
- There is no significant difference between the gender of online consumers in the consideration of personality on inducing them to purchase online.
- There is no significant difference between the marital status of online consumers in considering personality on inducing online purchase.
- There is no significant difference between the levels of education of online consumers in the consideration of personality on inducing them to purchase online.
- There is significant difference among the consumers of Southern region, Central part of Kerala and North region in considering personality on inducing online purchase. The personality factor does not influence much the people of North region on inducing them to purchase online compared to the people who were residing at Central part of Kerala and Southern region.
- There is no significant difference between the age of consumers in considering personality on inducing online purchase.
- There is no significant difference among the rural and urban consumers in Kerala in considering personality on inducing them to purchase online.
- There is no significant difference between the occupations of consumers in considering personality on inducing online purchase.

#### 6.3.2.8. Comparative Influence of Research Constructs

- Company attribute is the highest ranked and most influencing construct for online buyers in Kerala to go for online purchase.

- Risk factors involved in the online business is negatively influencing the online buyers in Kerala and it is still hindering consumers to substitute the traditional offline purchase to online purchase.

## 6.4. Suggestions

On the basis of the findings of the research study, the following suggestions are made which may be useful to the policy makers, online shopping companies and the consumers.

1. Government has to formulate a strong but uncomplicated policy for registering and running an online business so that more people can start their own online companies.

2. Government has to reduce tax complexities for the online business transactions.

3. Government should take necessary steps to trace fraudulent sites in the internet and penalize them ideally to prevent cheating consumers in online shopping.

4. Government should take steps to decrease the prices of hardware and software to increase the accessibility of consumers to internet.

5. Telecom Regulatory Authority of India (TRAI) has to take the following necessary steps which will help to promote online business.

- Ensure the availability of high speed reliable internet connectivity through out the state of Kerala.

- Reduce tariff for the use of internet and compel the internet providers to introduce more flexible data pack.

6. The customer's fear of misuse of personal information is one of the important hindrances in online business. Online companies have to give

more confidence on the security of personal information of the customer in online purchase.

7. The internet penetration and change in the shopping habits among consumers really boosted the online business around the globe. In this scenario it is better to start an online platform for the existing retailers to compete with the online companies in order to survive in the market and to match up with this change.

8. Majority of the online consumers in Kerala are making their online purchase through smart phones. The retailers who are selling their products through internet should focus on creating their own mobile app so that consumers can easily access the site and to make purchases easily.

9. Cash on delivery (COD) system of payment is not applicable to most of the products in online marketing. So the online companies should make applicable the COD system to more products in online business.

10. Delivery of the product in online marketing is based on the postal pin code of the area of residence. So the consumers of rural parts of the state have to give the delivery address other than their personal residence in case the delivery is not ensured in their home address. Hence the online companies should expand the delivery of the product to more areas especially in rural parts of Kerala.

11. The period of delivery is to be made faster so that the consumers need not have wait for the product for more than one week.

12. Consumers are looking for the demonstration of the product as in the offline store before making their purchase. At present it is not satisfactory to the consumers in online shopping. So the online companies have to improve this area of product usage demo to make it more attractive.

13. Online companies should also concentrate more on the improvement of after sale service for the consumers as in the offline business. It will help them to maintain better customer relationship.

14. Online companies should give more care on packing of the product so that the damage of the product can be avoided during transportation.

15. Online consumers normally have the fear of receiving products different from what is being ordered. Hence it should be ensured by the online companies that the product dispatched to the customer is with the same specification of what actually ordered by him.

16. The product return policy should not be much complicated for the consumers if they are not satisfied with the delivered product.

17. Consumers are concerned about the money back guarantee for the returned products. Online companies should credit the amount of returned products to the consumers account as early as possible to win their confidence.

18. Online shops have to provide maximum information about the product in the shopping site so that consumers can judge the products better.

## 6.5. Scope for Further Research

The present study was the first empirical study on the topic of online purchase influence of technological products in Kerala. This study focused only on the encouraging and discouraging factors when buying technological products online. Considering the scope of online business, the researcher has some suggestions for future research in various areas of this form of marketing. Some suggestions for future research are as follows.

- Future study can be undertaken to products other than technological products. It would be interesting to examine whether findings could be replicated or made applicable to other products also.

- This study focused mainly on individual consumers in online shopping. Future studies can be conducted to identify the influencing factors among organizational consumers also.
- Internet security and privacy issue in online shopping are also areas open for further research
- Comparison of marketing strategies to be adapted in online marketing with conventional marketing strategies is offered as another new research direction.
- This study concentrated only on collecting self reported data of online consumers. Future studies can be conducted with the information of consumers from any online company's database, instead of using self reported data.

## 6.6. Conclusion

The present research is the very first empirical study of this kind in the state of Kerala. The entire five objectives set for this research is achieved by collecting and analyzing the data and presented in various chapters. Hypotheses were set in connections with various objectives and comprehensive data analysis by using various statistical tools was employed to test each hypotheses. The results were interpreted according to provide better understanding of the collected information and analyzed data. Result from this study indicates that modified technology acceptance model developed for this study is able to explain the factors influencing the online purchase of technological products in Kerala.

Seven constructs and 65 variables were included in the research model. All the variables and constructs were duly checked and it is found that company attribute was the most important factor influencing consumer purchase in buying technological products online in Kerala. It followed perceived ease of use, customer experience, and personality of the consumer, product attribute, perceived usefulness and perceived risk ranked in order from high to low. In addition to this, a number of

other factors encouraging and discouraging the online purchase were also revealed like delivery period of online shopping, device used to shop online etc.

The results and findings of this study will be useful for the online sellers to plan their marketing strategies to increase the volume of online purchase among the consumers of Kerala. As the risk factor involved in online shopping shows the least ranked construct in the model in influencing online purchase among consumers in Kerala, online sellers is recommended to apply various types of risk reducing strategies to increase the number of consumers to buy online. Management may also be able to develop new marketing strategies to improve the perception of usefulness of e shopping by improving the scale mentioned and tested under this construct. The study shows that the number of online purchase made by the consumers of Kerala in a year is less than five except few consumers. Majority of the consumers go online to check and compare the price but not converting it to purchase. The marketers have to develop strategies to overcome this also. Understanding the result of consumer's response on each variable would help the online sellers in developing marketing strategies to increase the number of online purchase among consumers in Kerala. The result and finding will also be useful to the consumers and the government as mentioned in the suggestions part of this study.

# Bibliography


Atmadip Ray & Writankar Mukherjee ( 2015), "Zero-interest EMIs on portals like Flipkart, Amazon, Snapdeal & others may make NBFCs heroes", *The Economic Times, Finance, ET Bureau*, Mar 26, 2015, 04.00AM IST.

Avnish Bajaj, (2012), co-founder and director of Matrix Partners India, based on market research conducted by Forrester Research Inc. and Matrix Partners India. 2012.

Adesara, H. (2005) "*New consumer mantra: Have money, will indulge in lifestyle spends*" Indiantelevision.com.

A Gordon, K Bhowan, (2005), *Factors that Influence Online Shopping Behavior*. Alteration 12.1a (2005) 145-169, ISSN 1023- 1757.

Arya, P. P., Yesh Pal (2001). *Research methodology in management*. New Delhi: Deep and Deep Publishers Private Limited.

Ariff, M. S. M., Yeow, S. M., Zakuan, N., Jusoh, A., & Bahari, A. Z. (2012). The effects of computer self-efficacy and technology acceptance model on behavioral intention in internet banking systems. *Procedia-Social and Behavioral Sciences*, *57*, 448-452.

Apte, D. P. (2009). *Statistical tools for managers using MS Excel*. New Delhi: Excel Books.

Agarwal, B. L. (2006). *Basic statistics*. New Delhi: New Age International Publishers.

Ajzen, I. 1985, From Intentions to Actions: A Theory of Planned Behavior, in Action Control: From Cognition to Behavior, J. Kuhl and J. Beckmann, eds, NY: *Springer Verlag.*

Abramson and Hollingshead, (1999), *Marketing on the Internet - Providing Customer Satisfaction. Marketing mix*. August 1999. Retrieved on Nov. 10 2015.

Bourlakis, M. , Papagiannidis, S. and Fox, H. (2008), E-consumer behaviour: Past, present and future trajectories of an evolving retail revolution, *International Journal of E-Business Research*, vol. 4, no. 3, pp.64-67, 69, 71-76.

Bakos, Y. Lucas Jr, H. OH. W. Simon, G. Viswanathan, S. Weber, B. (2005), The Impact of E-Commerce on Competition in the Retail Brokerage Industry, *Information Systems Research*, 16 (4), pp. 352 - 372 December 2005.

Brynjolfsson, E., Smith, M. and Montgomery, A., (2004), The GreatEqualizer? Consumer Choice Behavior at Internet Shop bots, *MIT Sloan Working Paper* No. 4208-01, 2004.

Broekhuizen, T. and Jager, W. (2004), "*A Conceptual Model of Channel Choice: Measuring Online and Offline Shopping Value Perceptions*". University of Groningen, Research Institute SOM (Systems, Organisations and Management) in its series Research Report with number 04F04, 2004.

Bhattacharya, D. K. (2004). *Research Methodology*. New Delhi: Excel Books.

Bhanwar Lai Garg, Renu Kavdia, Sulochana Agrawal, & Umesh Kumar Agrawal (2002). *An introduction to research methodology*. Jaipur: RBSA Publishers.

Cataline Zorzini, (2015), The State E-Commerce in 2015, ecommerce platforms, ecommerce news, June 2, 2015.

Comegys, C., Hannula, M. and Váisánen, J. (2009), "Effects of consumer trust and risk on online purchase decision-making: A comparison of Finnish and United States students", *International Journal of Management*, vol. 26, no. 2, pp. 295-308.

Chua, C.W. and Lu, H. P., (2006), "Factors influencing online music purchase intention in Taiwan: an empirical study based on the value-intention framework", *Internet Research*, Vol. 17. No. 2, 2006. pp. 139-155.

Cheung, C. M. K., Zhu, L., Kwong T., Chan, G. W. W. & Limayem, M. (2003), *Online consumer behavior: a review and agenda for future research*, 16th Bled ECommerce Conference, Bled Slovenia, 194-218, June 2003.

"Convenience Equally Important As Discounts for Online Shoppers in India". www.CouponRani.com Retrieved 11 November 2013.

D. K. Gangeshwer, (2013), E-Commerce or Internet Marketing: A Business Review from Indian Context, *International Journal of u- and e-Service, Science and Technology* Vol.6, No.6 pp.187-194.

Davis, F.D. 1989, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, vol. 13, pp. 319-339.

D S Rawat, (2013), Assocham Secretary General, according to a survey by industry body Assocham. 2013. *The Economic Times- Internet*, **PTI** Dec 30, 2013.

Donald, H. Mc Burney (2002). *Research Methodology*. Singapore: Thomson Asia Private Limited.

Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. 1989, User Acceptance of Computer Technology: A Comparison of Two Theoretical Models, *Management Science*, vol. 35, no. 8, pp. 982-1003.

Donthu, N. and Garcia, A., (1999), The Internet Shopper, *Journal of Advertising Research*, 39: 52–58.

Davis, F.D and Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *Int. J. Human- Computer Studies,* 45(1). 19-45.

Economic literature review, (2007), *Internet shopping* – Annexe F, June 2007. A report for the Office of Fair Trading by Europe Economics, p 67.

E-commerce in India. From Wikipedia, the free encyclopedia. 2015.

E-commerce in India. From Wikipedia, the free encyclopedia. Retrieved on 4 Aug 2013.

Elhance, D. L., Veena Elhance & Aggarwal, B. M. (2005). *Fundamentals of Statistics*. Allahabad: Kitab Mahal.

E-commerce in India. From Wikipedia, the free encyclopedia. 2014.

Failte Ireland, (2012), National Tourism Development Authority, Overview of Internet Marketing, 2 April 2012, Version 1.0.

Fishbein, M. & Ajzen, I. 1975, *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Reading, MA. Addison-Wesley.

Gadget 360, an NDTV Venture, Internet news, Indo Asian news service, 11 August 2015.

G. T. Waghmare, (2012), "E-commerce; A Business Review and Future Prospects in Indian Business", Internet Marketing in India: *Indian Streams Research Journal*, vol. 2, no. IV, pp. 1-4.

Google Trends (2012), Online research conducted by TNS Australia with a sample size of 800 respondents on behalf of Google India in November 2012.

Gregory Karp, (2009), personal finance writer for The Morning Call, Allentown, Pa. Chickago Tribune, October 25, 2009.

Gupta, S.C. (2004). *Fundamentals of Statistics*. Mumbai: Himalaya Publishing House.

Gupta, S. P. (2012). *Statistical methods*. New Delhi: Sulthan Chand & Sons Educational Publishers.

Hager, D., C. kibbler & L. Zack, (1999), The Basics of User- Friendly Web Design. *Journal for Quality and Participation*. May/June 1999. Vol.22, Issue 3. p 58.

Hooda, R. P. (2008). *Statistics for business and economics*. New Delhi: Macmillan India Limited.

Irfan Khan, (2015). Entrepreneur India, What can a blog does to your business, Nov 2, 2015

"Internet World Stats" (2013). Internet World Stats. Retrieved 2013-07-04.

***Internet Live Stats*** (elaboration of data by *International Telecommunication Union (ITU)* and *United Nations Population Division)*

"India broadband penetration growth". Internetworldstats.com. Retrieved 2013-07-04.

J. Suresh Reddy, (2003), Impact of E-commerce on marketing, *Indian Journal of Marketing*, May, vol. xxxiii, No.5.

Joseph, F. Healy (2005). *Statistic: A tool for social research*. Belmont: Wadsworth Cengage Learning.

Jogendra Mehta (2013). *Research Methodology, Theory, Opportunities and challenges*. Jaipur. Book Enclave.

Kumar, A. (2001), Electronic Commerce: Internet Industry, *McKinsey Quarterly*, issue 1, pp. 4-6.

Koo, D. M., Kim, J. J. and Lee, S. H., (2008), "Personal values as underlying motives of shopping online", Asia *Pacific Journal of Marketing and Logistics*, vol. 20, no. 2, pp. 156-173.

Kotler, P. (2003), *Marketing Management*. Eleventh Edition. New Jersey. Prentice Hall.

Koyuncu, C. and Bhattacharya, G. (2004), The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. *Journal of Socio-Economics*, Volume 33, Issue 2, pp. 241-251, April 2004.

Keen, C., Wetzelsb M., de Ruyterc, K. and Feinberg R., (2004), E-tailers versus retailers: Which factors determine consumer preferences?. *Journal of Business Research* 57 pp. 685– 695, 2004.

Kunkel, J. (2003), Reducing Risk, Maximising Return in Online Retailing. Chain Store Age. September 2003. Issue 9 p3.

Kothari, C. R. (1997). *Quantitative Techniques*. New Delhi: Vikas Publishing House.

Kothari & Gourav Garg (2014), Research methodology: Methods and Techniques. New Delhi: New Age International Publishers.

Kiran Pandya, smruti Bulsari, & Sanjay Sinha (2014). *SPSS in simple steps*. New Delhi: Dreamtech Press.

Lian, J. and Lin, T., (2008), Effects of consumer characteristics on their acceptance of online shopping: Comparisons among different product types, Computers in Human Behavior, 24: 48 – 65.

Levin, A., Levin, I. and Weller,J. (2005), A Multi-attribute Analysis of Preferences for Online and Offline Shopping: Differences across products, consumers and shopping stages, *Journal of Electronic Commerce Research*, Vol. 6, No.4, 2005.

Laudon, K.C. and Traver, C.G., (2009), *E-Commerce Business. Technology. Society*, 5th edition, Prentice Hall, New Jersey.

Lai, V. S., & Li, H. (2005). Technology acceptance model for internet banking: an invariance analysis. *Information & management*, *42*(2), 373-386.

Liang, T. P., Huang, J. S., 1998, An empirical study on consumer acceptance on products in electronic markets: A transaction cost model, *Decision Support Systems,* 24: 29– 43.

Liang, T. P. and Lai. H. J., (2002), “Effect of store design on consumer purchases: An empirical study of on-line bookstores”, *Information & Management*, vol. 39, no. 6, pp.431-444.

Lee, G. G. and Lin, H. F. (2005), Customer Perceptions of E-Service Quality in Online Shopping. *International journal of Retail and Distribution Management*. Vol.33, No. 2, 2005. pp 161-176.

M. S. Khan and S. S. Mahpatra, (2009), Service quality evaluation in internet banking: an empirical study in India, *International Journal for Indian Culture and Business Management*, vol. 2, no. 1, (2009), pp. 30-46.

Mohan, S., & Elangovan, R. (2007). *Research methodology in Commerce*. New Delhi: Deep and Deep Publishers Private Limited.

Michael Jay Polonsky, & David, S. Waller (2005). *Designing and managing a research project: A business students’ guide*. New Delhi: Response Books.

Miyazaki, A.D. & Fernandez, A. 2000, Internet Privacy and Security: An Examination of Online Retailer Disclosures, *Journal of Public Policy & Marketing*, Spring, vol. 19, issue 1, pp. 54-62.

Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: understanding customer satisfaction with technology-based service encounters. *Journal of marketing*, *64*(3), 50-64.

Mandy Vander Velde, Paul Janson, & Neil Anderson (2008). *Management Research Methods*. Noida: Blackwell Publishing.

Mark Brohan, (2014), Research director, *internet RETAILER* – Portal to E-Commerce Intelligence, December 2014.

“Models of e-commerce in India". Desinerd.com. 2012-08-29. Retrieved 2013-07-04.

Mark Brohan, (2013), Research director, internet RETAILER – Portal to E-Commerce Intelligence, January 11, 2013.

Mathrubumi Malayalam daily, 30 Dec 2015, based on the 'Generation Zed' survey conducted by Tata Consultancy Service.

Nowlis, S.M. & McCabe, D.B. 2000, *Online vs Off-line Consumer Decision Making: The Effect of the Ability to Physically Touch Merchandise*, Second Marketing Science International Conference, USC, Los Angeles, CA.

NUA 2016, Nua Internet Surveys, How Many Online, (http://www.nua.ie/surveys/how_many_online/index.html)

Parikh, D. (2006), "Profiling Internet Shoppers: A Study of Expected Adoption of Online Shopping in India", *IIMB Management Review*, Vol 18, No 3. 2006.

Prasad, C. and Aryasri, A., (2009), "Determinants of shopper behavior in e-tailing: An empirical analysis", Paradigm, vol. 13, no. 1, pp.73-83.

PTI Aug 29, 2010, 02.22pm IST (2010-08-29). "E-commerce growth with 3G". *Economictimes.indiatimes.com*. Retrieved 2013-07-04.

Paneerselvam, R. (2010). Research Methodology. New Delhi: PHI Learning Private. Limited.

Phau, I. & Poon, S.M. 2000, Factors Influencing the Types of Products and Services Purchased Over the Internet, *Internet Research: Electronic Applications and Policy*, vol. 10, issue 2.

Pallab, P. (1996), Marketing on the Internet, *Journal of Consumer Marketing*, vol.13, issue 4, pp. 27-39.

Richa Maheshwari & Sobia Khan, (2015), *Factory outlets are finding the going tough with shoppers hooked to online shopping due to higher discounts*, The Economic Times, Retail, ET Bureau Sep 25, 2015, 04.00AM IST.

Rajan Anandan, (2012), Citing data from Google Trends based on the online research conducted by market researcher TNS. 2012.

R. R. Ruckman, (2012), http://www.imgrind.com/10-advantages-of-internet-marketing/10 Advantages Of Internet Marketing, (2012) January 19.

Robert Bickel (2008). *Multilevel analysis for applied research*. New York: The Guilford Press.

Richard, L. Levin, & David, S. Rubin (1997). *Statistics for management*. New Delhi. Prentice Hall of India Private Limited.

Ratan Khasnabis & Suvasis Saha (2015). *Research methodology*. Noida: Universities Press (India) Private Limited.

Ranjith Kumar (2014). *Research methodology: A step-by-step guide for beginners*. Noida: Sage Publications India Private Limited.

Ram Ahuja (2002). *Research methods*. Jaipur: Rawat Publications.

Swati Prasad**, (**2013), Inside India | January 29, 2013, Article- Online shopping catching fancy of Indian consumers

Smart Beautiful Digital Marketing - 10 Definitions of Marketing, on the web page of CNN iReport By D Mc Greggr, Posted April 28, 2015, retrieved on January 14, 2016.

Strauss, J. & Raymond, F. (1999), *Marketing on the Internet*, Prentice-Hall, Upper Saddle River, New Jersey.

Srivastava, U. K., Shenoy, G. V., & Sharma, S. C. (1997). *Quantitative techniques for managerial decisions.* New Delhi: New Age International Private Limited.

Shamdasani, P., Mukherjee, A., & Malhotra, N. (2008). Antecedents and consequences of service quality in consumer evaluation of self-service internet technologies. *The Service Industries Journal, 28*(1), 117-138.

Santhosh Gupta (1997). *Research Methodology and statistical techniques*. New Delhi: Deep and Deep Publishers Private Limited.

Sancheti, D. C., & Kapoor, V. K. (1995). *Statistics: Theory, methods and applications*. New Delhi: Sulthan chand & Sons.

Sachdeva, J. K. (2008). *Business Research Methodology*. Mumbai: Himalaya Publishing House.

Smith, M.D., J. Baileyand E. Brynjolfsson. *Understanding Digital Markets: Reviews and Assessments.* In Understanding the Digital Economy, MIT Press, 1999.

Statista (2016),- The statistics Portal, https://www.statista.com/statistics/251631/number-of-digital-buyers-in-india/

Schaefer, D.R. & Dillman, D.A. 2001, Development of a Standard E-Mail Methodology, Public Opinion Quarterly, vol. 62, pp. 378-397 by the *American Association for Public Opinion Research*.

Times of India, (2013), http://timesofindia.indiatimes.com/tech/tech-news/internet/50-sales-of-e-commerce-sites-like-Indiatimes-Shopping-Myntra-Jabong-from-tier-II-III-cities/articleshow/18460504.cms, Feb 12, 2013.

Techtree (2005), "*Internet Shopping in India*", www.techtree.com

Telecom Regulatory Authority of India, Annual Report 2016-2017

U. Karoor, (2012), "E-commerce in India: Early Bards expensive worms", Consumer and shopper insights, 2012.

Vishal Midha, (2012), Article- Impact of consumer empowerment on online trust: An examination across genders, *Elsevier International Journal*. pp198-205, 17-May- 2012.

Vidya shree, D.V., Yamuna, N. & Nithya Shree, G.(2015). A Study on New Dynamics in Digital Payment System with special reference to Paytm and Pay U Money. *International Journal of applied Research,* 1(10), pp1002-1005.

Varma, R. K., & Gopal Varma (1989). *Research methodology*. New Delhi: Commmonwealth Publishers.

Warrington, T.B., Abgrab, N.J., & Caldwell, H.M. (2000), Building Trust to Develop Competitive Advantage in E-Business Relationships, *Competitiveness Review*, vol. 10, issue 2, pp. 160-168.

William, G. Cohran (1992). *Sampling techniques*. New Delhi: Wiley Eastern.

Waldo, B.H. (2000), Re deifining the Health Care Landscape with the Internet, *Nursing Economics*, March-April, vol. 18, issue 2, pp.99-100.

Yu, T. And Wu, G. (2007), "Determinants of internet shopping behavior: An application of reasoned behavior theory", *International Journal of Management*, vol. 24, no. 4, pp. 744-762, 823.

Yulihasri, M. D. Aminul Islam and Ku Amir Ku Duad, (2011), "Factors that Influence Customers' Buying Intention on Shopping Online", *International Journal of marketing studies*, Vol.3, No.1, February 2011. Pp 128-139.

Yogesh Kumar Singh (2006). *Fundamentals of research methodology and statistics*. New Delhi: New Age International Pubishers.

https://www.shodhganga.inflibnet.ac.in

https://en.wikipedia.org

http://www.thehindubusinessline.com

http://www.worldpay.com

http://www.codilar.com

http://www.techtree.com/India/News/Internet_Shopping_in_India/551-5701-617.html.

# Appendix

## Interview Schedule

### (For the study "Online Shopping of Technological Products in Kerala- An Empirical Analysis")

Kindly complete the questionnaire to the best of your knowledge, and also any additional comments that can be useful for this study, put it at the end of this questionnaire.

**Name :**

**Contact:**

**SECTION A –**

**Demographic Characteristics of the Resopondents**

1. **Gender**

   Male [1] Female [2]

2. **Age as of January 1, 2016?**

   16-25 [1] 26-35 [2] Above 35 [3]

3. **Marital status**

   Single [1] Married [2]

4. **Education**

   High school [1] Plus Two or Equivalent [2] Graduate [3]

   Post Graduate [4] Other [5]

5. **Occupation/ status**

Govt./ Public sector employment [1] Private sector employment [2]

Business [3] Student [4] Home made [5]

Working abroad [6]

6. **Personal/ family income per month**

20,000-40,000 [1] 40,000-60,000 [2] Above 60,000 [3]

7. **Current place of living**

North Region [1] Central part of Kerala [2]

South Region [3]

8. **Area of Residence**

Rural (Panchayath) [1] Urban (Municipality/Corporations) [2]

## SECTION B

## EXPERIENCES AND INTENTIONS TOWARDS ONLINE PURCHASING OF TECHNOLOGICAL PRODUCTS

9. Have you used any Internet services during the past 12 months?

   Yes [1] No (Terminate) [2]

10. From where do you access the Internet? (*Please tick as many as applicable.)*

    From home [1] From workplace [2]

    From educational institution [3] Other [4]

11. Which device do you use to access the internet?

    Desktop computer [1] Laptop [2] Smart phone [3]

12. How long do you spend in internet during a day

    Time in Minutes/Hour: …….

13. Have you ever bought products or services online from the Internet?

    Yes [1] No (Terminate) [2]

14. How much time do you need to complete online purchase?

    Time in Minutes/Hour: …….

15. What kind of products or services have you bought more times from online during the past 12 months? (*Please tick as many as applicable.)*

    Educational products [1] Technological Products [2]

    Banking/financial services/insurance [3] Clothes/fashion products [4]

    Foods or medicines [5] Travel / hotel arrangements [6]

    Other [7]

16. How often have you bought any products or services online from the Internet during the past 12 months?

1-2 times [1] 3-5 times [2] More than 5 times [3]

17. Have you ever bought any Technological products online?

Yes [1] No (Terminate) [2]

18. Have you bought or consumed any Technological Products online during the last one year?

Yes [1] No (Terminate) [2]

19. What kind of Technological Product have you bought or consumed more times from online during the past 12 months? (*Please tick as many as applicable.)*

**Mobile and Accessories** [1]

Mobile Phone, Memory card etc

**Computer and Accessories** [2]

Computer, Laptop, Pen Drive, Hard disk, Printer etc

**Household Items** [3]

Digital Camera, LCD/LED, Stereo, Mixer grinder, Others

20. How many times you made online purchase of Technological products during the past 12 months?

Number of Times: [ ]

21. How long you have to wait for the delivery of the product in online purchase

Number of days: [ ]

22. How much money do you spend on buying Technological products in a year?

22.1. Online: Rs…….

22.2. Offline: Rs… ……

23. If you need any Technological products within the next 12 months, do you plan to make your purchase online?

Very likely 1 Likely 2 Not sure 3 Unlikely 4 Very unlikely 5

24. Will you recommend your friends to buy Technological products online from the Internet?

Very likely 1 Likely 2 Not sure 3 Unlikely 4 Very unlikely 5

25. Do you buy Technological products for your own consumption or for others? (*Please tick as many as applicable.)*

Self consumption 1 Giving as gift 2 Other 3

26. Do you feel any cost benefit in buying technological product through online

Yes 1 No 2

## SECTION C

## OPINIONS, BELIEFS, and ATTITUDES towards Online Purchasing Of Technological Products

I would like to know more about your opinions, beliefs, and attitudes regarding your previous experiences and intentions of your future online-purchase of Technological products. Please read each of the statements below and indicate your level of agreement or disagreement: **I would be more likely to purchase Technological products online if,**

**Strongly Agree= 5, Agree= 4, Neutral= 3, Disagree= 2, Strongly Disagree= 1**

| Sl No. | Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| **27. How much the Company Attribute (CA) influencing your online purchase decision.** | | | | | | |
| 1 | Having been operating good business for a long time. | | | | | |
| 2 | Having a permanent, physical address. | | | | | |
| 3 | Being well known to the public. | | | | | |
| 4 | Being very well known to myself | | | | | |
| 5 | Having good after sale service. | | | | | |
| 6 | Delivering goods at my local place. | | | | | |
| **28. How much the Product Attribute (PA) influencing your online purchase decision.** | | | | | | |
| 1 | The brand name is popular. | | | | | |
| 2 | Being the brand name I trusted. | | | | | |
| 3 | Being the brand name I have previously used. | | | | | |
| 4 | Product offering good value for my money. | | | | | |
| 5 | Product only available through the Internet. | | | | | |
| 6 | Enough information available in online sites for me to judge the product quality. | | | | | |
| 7 | Product endorsed by celebrities. | | | | | |
| 8 | Product recommended to me by friends or relatives. | | | | | |
| 9 | Product having latest technologies and features. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **29. The existence of Perceived Risk (PR) does have any influence on your online purchase decision.** | | | | | | |
| | Payments through credit/debit cards are safe and secure. | | | | | |
| | Various options of payment to choose from. | | | | | |
| | Cash on delivery payment available. | | | | | |
| | No risk of receiving products differs from what being ordered. | | | | | |
| | No risk of receiving product later than expected date. | | | | | |
| | Being charged only the agreed amount of money. | | | | | |
| | No risk being used any unauthorized personal Information. | | | | | |
| | There was no danger from the home delivery. | | | | | |
| | Money back guarantee for product not fully satisfied. | | | | | |
| | The quality of product purchased is fully guaranteed. | | | | | |
| | The product purchased is good and effective as advertised. | | | | | |
| | Able to return the product purchased if not fully satisfied. | | | | | |
| | Easy and convenient procedures for product return process. | | | | | |
| **30. The attribute Perceived Ease of Use (PEU) do have any influence on your online purchase decision.** | | | | | | |
| | Convenient logging-on to company homepage. | | | | | |
| | Easy and convenient online ordering layout. | | | | | |
| | Company homepage is clear and easily understandable. | | | | | |
| | Fast and convenient information searching system. | | | | | |
| | Online purchasing procedure is simple. | | | | | |
| | Product information must not be too long. | | | | | |
| | Character font size must be easy to read. | | | | | |
| | Product particulars and usage is easily understandable. | | | | | |
| | Online product picture display is clear. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **31. The attribute Perceived Usefulness (PU) do have any influence on your online purchase decision.** | | | | | | |
| | Being enjoyable and exciting. | | | | | |
| | Provided rich and varied information. | | | | | |
| | More reliable information than from sales person. | | | | | |
| | Shop at your convenient, whenever you want. | | | | | |
| | Not wasting time traveling to shop. | | | | | |
| | Able to shop both from within domestic and abroad. | | | | | |
| | Wider range of technological products to choose from. | | | | | |
| | Varied choice of companies providing technological products. | | | | | |
| | Lower price than conventional stores. | | | | | |
| | Larger discounts offered. | | | | | |
| | More free of charge gifts than conventional stores. | | | | | |
| | Free samples are available. | | | | | |
| **32. Customer Experience (CE) – Your past experience does have any influence in online purchase decision?** | | | | | | |
| | Easy to find desired products | | | | | |
| | Easy to compare similar types of products | | | | | |
| | Easy to find economical products | | | | | |
| | No sales person to bother with. | | | | | |
| | Helps to save shopping time | | | | | |
| | Easy to find newly launched products for purchase | | | | | |
| | No need to have a highly English literacy | | | | | |
| | Demonstration about the usage of products is available | | | | | |
| | Gets enough time to judge the product before making purchase | | | | | |
| | Chances of bargaining is high | | | | | |
| | Customer gets original bill for the purchase | | | | | |
| | No hard feeling when not making any purchase. | | | | | |

| **33. How much the Personality of the Customer (PC) influences the online purchase decision?** | | | | | | |
|---|---|---|---|---|---|---|
| | Trendy and fashionable | | | | | |
| | Efficient and skillful in surfing the internet | | | | | |
| | Surfing internet frequently | | | | | |
| | Good in English language | | | | | |
| | Like to use latest technologies | | | | | |

## Suggestions if any

……

……

……

…… .....

Thank You