Factors Affecting Customer Choice of Shopping: A- Comparative Study of Online and Offline Shopping in the Context of India.

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MANAGEMENT

By

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DECLARATION

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Parts of this thesis have been:

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ACRONYMS AND ABBREVIATIONS

S. No	Acronym / Abbreviations	Full Form / Meaning
1.	GDP	Gross Domestic Product
2.	AMOS	Analysis of Moment Structures
3.	ANOVA	Analysis of Variance
4.	B2B	Business to Business
5.	CFA	Confirmatory Factor Analysis
6.	B2C	Business to Consumer
7.	GMV	Gross Merchandise Value
8.	EFA	Exploratory Factor Analysis
9.	IDSA	India Direct Selling Association
10.	FDI	Foreign Direct Investment
11.	PGFI	Parsimonious Goodness-of-Fit Index
12.	IFC	International Finance Corporation
13.	SNCMC	Smart National Common Mobility Card
14.	GST	Goods and Services Tax
15.	IT	Information Technology
16.	IoT	Internet of Things
17.	SPSS	Statistical Package for Social Sciences
18.	U.G.C	University Grants Commission
19.	IAMAI	Internet and Mobile Association of India
20.	PNFI	Parsimonious Normed Fit Index
21.	TRAI	Telecom Regulatory Authority of India
22.	SEM	Structural Equation Modeling

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" A customer is the most important visitor, on our premises. He is not dependent on us. We are dependent on him. He is not an interruption of our work. He is the purpose of it.He is not an outsider on our business. He is the part of it. We are not doing him a favor by serving him he is doing us a favor giving us an opportunity to do so."

"Mohandas Karamchand Gandhi".

INTRODUCTION

Indian Retail industry currently employs eight percent of the work force and contributes more than 10 percent to the Gross Domestic Product (GDP). It is a fast paced industry and is expected to be the next growth zone of Indian industries. The ever-changing shopping formats and customer buying behavior, coupled with vast middle class with purchasing capabilities makeIndia anattractive retailingmarket for global retail companies.

There are two broad categories of retailing in India – physical stores and virtual stores. The bulk of retailing occurs through physical stores. The online presence of retailers provides virtual shopping space to the customers. Inventory management practices are different for the physical and virtual stores and are a source of competitive advantage. The power of information technology (IT) combined with huge data warehouses have helped, both physical retailers and e-retailers to optimize inventory and respond faster to needs of the customers.

Evanschitzky, Kenning, & Vogel(2004)have identified the shift from "human-to-human interaction to human-to-machine interaction as a fundamental difference between physical retailing and virtual retailing".The physical retailing, also known as traditional retailing, emphasizes on store layout. The e-retailing or virtual retailing emphasizes on browse and search functions, indices, image maps, and e-store design.

Ambiance with aesthetic design creates a pleasant and favorable environment in the physical store whereas visual cues are used for e-tailing (Tractinsky & Lowengart, 2007). In the case where the websites (virtual stores) are not easy to use or not visually appealing customer may shift to alternatives. However, making changes in sites is relatively easier, cheaper and offers more flexibility. The virtual retailing controls the product representation through the information mix of images, text, and hyperlinks. Proper use of screen positions and thewindow size is required to make the experience more pleasant to the customer. Attitude is one of the important variable influencing consumer behavior, since consumer patronage is associated with the positive attitude of the customer towards the products, brands, store, etc.Attitude is defined as **"**learned predisposition to behave in a consistently favorable or unfavorablefashion"(Vrechopoulos, Siomkos, & Doukidis, 2001)**.**

1.1. Retailing

Retailing is the final stage of thedistribution channel. A retailing company resells products manufactured by other organizations. A retailer offers many benefits to suppliers and customers. The most significant benefit for customers is the ability to buy small quantities of an assortment of products at reasonable prices. The access to the market and support for promotions are benefits provided by the retailer to suppliers or manufacturer organizations.

The Indian retail industry is undergoing a change fromstreet side local physical retailing to organized retailing as well as Internet-basede-retailing.Fulfilling customer needsis the only constant in the dynamic business environment. The evolution of Indian retailing during the past four decades signifies the major shifts in the Indian retailing industry.

1.1.1. Retail Experience in 1970's

During this stage, shopkeepers or retailers hadan absolute control on goods sold and therefore the choice available to consumers is limited both regardingsomegoodsas well as the outlets. The customers had limited bargaining power and unethical practices were prevelant in some cases leading to price discrimination, product quality issues, etc. The support services and engagement was dependent on the socio-economic status of the customers.

1.1.2. **Retail Experience in 1980's**

The manufacturers worked towards increased availability of the products in the market and shopkeepers also contributed to this by aggregating demand from different customer groups. The choice to the customer has grown. However, theprice is still controlled by the shopkeeper. Shopkeepers offered abetter range of sales and after-sales services. Modern retailing started during this phase and added a new face to the consumer experience.

1.1.3. Retail Experience in 1990's

With the advent of the economic reforms leading to liberalization, privatization, and globalization, foreign companies have started entering Indian retailing scene. They competed for mind share and market share through price wars with the existing Indian businesses. The investment on creating customer awareness through advertisements has increased. The access to private media was also more, and companies have invested in technology for better logistics management increasing the consumer choice at thepoint of sale. Customer care became a part of strategy rather than something provided by the retailer to select customers. There was a significant improvement in the

servicesbeing offered to the customers. In short, the market was developing, and companies started using technology for better customer satisfaction.

1.1.4. Retail Experience in 2000's

In the last decade, the availability of products and therefore customer choice has increased. The respect to customers and understanding of customer needs has also gone up. The aim of organizations during the early part of the century is to provide quality products at affordable prices to the different target markets. The customer has the option of buying different products addressing the same needs at various price points. Technology has become an integral part of the business operations. Increasing number of internet users coupled with the availability of mobile telecommunications paved way for the emergence of virtual stores. The phenomenon of selling goods and services over internet (electronic channel), typically through a website became popular. Wide choice, different formats of retailing and growth of virtual stores has changed the way the customers' needs are serviced. The virtual stores started offering facilities like no questions asked return policy, cash on delivery, etc. to get more customers to prefer this format of stores. The other payment options include internet banking, card based payments, and mobile wallets. Mobile technology has made the selection, tracking and delivery confirmation of product easier to the customer.

1.1.6. Benefits Offered by Retailing

The benefits offered by the retailers to the customer include access to products, ease of comparison, optimized prices, financing facilities, an assortment of goods, bulk breaking, testing of goods, etc.

The benefits offered by the retailers to the manufacturing organizations include customer access, real-time information on customer needs, customized promotional

mix, customer feedback, and product customization. The knowledge and skills of the retailers contribute towards the sales volume, profits, and loyalty towards the brands of products.

The physical stores of retailers are located such that they are easily accessible to the customers. They may be near the office or residential locality of the customers. In thecase of retail formats requiring larger floor space, availability of parking and ease of reaching the store become critical factors in thepatronage of the retail outlet. In thecase of virtualstores, thedelivery process becomes an essential factor to the customer.

1.1.7. Retail formats in india below table shows different types of retail formats in india.

Table:1.1 Retail Formats in India

Type of Format	Description / Definition of the format
Supermarket	The supermarket is a large size, low margin, high volume, self-service operation designed to serve the customers' needs, grocery, laundry and household maintenance products. The size of the supermarket is large compared to the typical mom and pop store.

Departmental Stores	Departmental stores carry several product linesinvariable all that is required by a typical household. These lines include food, clothing, appliance and other household goods, home furnishing,andgiftsand curios. These storesare mainly located in metro cities in India.
Convenience Stores	Convenience stores are food stores that are much smaller than the supermarket. They are conveniently located near residential areas and have long hours of operations, seven days a week, and carry a limited line of high-turnover convenience products. In Indian context, the old and faithful street corner grocery stores, are the ones that can be called convenience stores.
Hypermarkets/ Malls	Hypermarkets or Shopping malls are the biggest forms of theretailformat in India; malls offer customers a mix of all types ofgoods and services including entertainment and food under a single roof.
Electronic Stores	The virtual store available to the customer through the Internet is also termed as electronic store. There are two types of e-retailing based on the customer type. One is called business-to-business (B2B) and another is termed as business-to-consumer (B2C). The sale of products over the Internet is popularly attributed to the personal computer and mobile phone applications.

Discount Stores Discount stores are the one that sellstandard merchandise at lower prices than general merchants or stores, by accepting lower margin but pushing for higher sales volumes. A true discount store has four characterizes:

It regularly sells its goods at a discounted price

It carries national or reputed brands to enhance its image

It keeps its operational costs to minimum by emphasizing on self-service

It's location tends to be in low rents areas and it draws customers from even distant locations. The biggest discount store in India is D-mart.

Vending Machines The Vending machineis very common in Europe and North America for selling food products, soft drinksbut relativelya new entry, in Indianretail sector. Here beverages, snacks, and other small items can be bought via vending machine**.**

Specialty Stores Specialty stores carry a narrow product line with a deep assortment of products within theline. For examples are jewellery stores like MalabarGold and Kazana. By Marketing Management 5th edition Ranjan saxena Pp: 492-493

Cash and Carry Stores Cash and carry stores typically occupy large space.Products are sold in a wholesaler warehouse which is generally operated either on a self-service basis or on the basis of samples with the customer selecting from specimen goods and services using a

manual or a computerized ordering system but not serving himself).

1.2. Indian Retail Industry

According to industry reports Indian retail industry is expected to grow phenomenally almost doubling sizein monetary terms to 1.3 trillion USD in 2020. The contributing factors for this growth are higher purchasing capacity of Indian consumers,rapid urbanisation contributing to organized retailing, and increased consumption oriented attitude of the society. The forecasts for the virtual stores or e-commerce are ambitious with the business to business market expected to reach 700 bn USD whereas, the consumer e-commerce is projected to be worth around 102 bn USD by 2020.

The increase in Internet penetration and availability of mobile Internet with better access speeds are among the key drivers of the growth of the e-commerce market in India. By the year 2025, Indian e-commerce market isprojected to grow up to US$ 220 billion in terms of gross merchandise value (GMV) and the number of shoppers would touch 530 million.

The investment in the retail space from the local business as well as the foreign investors has been increasing from the last one and half decade. According to India Brand Equity Foundation reports (2017), "The Foreign Direct Investment (FDI) inflows amounted to US$ 537.61 million during April 2000–March 2016". For instance the 'Future Group' consisting of Big Bazar, Home Town, Brand Factory, Central, etc. has been promised investment uptoUS$ 19.86 million by the International Finance Corporation (IFC).

Amazon, the leading e-retailer has started ‘Fulfilled by Amazon’ service. It has established fulfillment centers in different parts of India. The total space occupied by these fulfillment centers amounts to 5.5 million square feet which would enable the company to cater to the needs of differentregions of the country. In SouthIndia,it has space in Chennai and Coimbatore. In Northern India,amazon has space in Delhi and Jaipur. The western Indiais covered from Mumbai. It is expected to reduce the delivery period and also optimize inventory management. Amazon Inc. has committed investment to over US$ 5 billion.

Similar investment plans are made by IKEA in the furniture business with around Rs. 10,000 crores of committed funds. In the fashion market, Aditya Birla Fashion and Retail Ltd has acquired physical and online sales rights of American brand ‘Forever’. A Spanish brand Massimo Dustin has opened its physical store in Delhi catering to male and female customers. Lenskart, Neil Barret, Kart Rocket all have acquired funds for expansion as well as investment into the technology, supply chain, and logistics operations. The liberation of policies in single brand retailing has attracted global brands like Kate Spade to India.

Investments are also made to enhance the local retail stores with technology support. For example, Nukkad shops which helps neighborhood retail shops has received funding for a US based company.

The public policy in liberalizing the ownership has accelerated the growth of retail industry in India. The government of India has allowed hundred percent Foreign Direct Investment (FDI) by automatic route in online retail of goods and services. This is expected to spruce up the investment climate and bring up-to-date technology and processes into existing e-commerce companies. Newer startups are also projected to

be supported because of the positive policy climate. One indicator of the economic impact of this policy measure is the signing of agreements with Walmart India, Arvind Life Style Brands and Spencers by the state government of Andhra Pradesh to the tune of one thousand five hundred crores.

Another policy measure is the Smart National Common Mobility Card (SNCMC) combining seamless local travel by metros, bus, etc. which may also be used for retail purchases. This new card provides value to the prepaid cards used for ease of the trip to be used as aretail card.

Goods and Services Tax (GST) is another policy reform that is expected to support theeasier movement of goods across the country. Being a one nation one tax policy it is anticipated to improve retail operations for pan-India retailers.

In the physical retail space, 'no restriction upto 49 percent ownership' stakes for foreign investors is a measure that would attract investments. This will increase access to funds for the organised retailersoperating in the physical retail space. The investments in newer models and entry of new competitors will also increase because of the policy change.

The growth of theWeb-based business is not only through the existing markets in Tier 1 cities, but also due to the expansion to Tier 2 and Tier 3 cities. The virtual markets are also growing in those product categories which were traditionally more oriented towards physical retailing. The sale of vegetables and fruits online is an excellent case for this pattern of growth in online retailing. The increase product portfolio of online retailers coupled with innovative promotions and prices have created the greatest upheaval in the retail industry.

Combining online approach to their more physical presence is one strategic option available to physical retailers. Similarly, the online virtual shops have also started opening warehouse stores as well as shops in the major markets. The trend is going to redefine the separation between online and offline markets. The convergence seen in the online and offline markets may also become possible in the organized and unorganizedretail companies to generate new benefits for their customers.

Considering the above factors and the positive trends witnessed in the increasing purchasing capacities it can be concluded that the Indian retail industry is poised for a good future. Access to local and foreign funds, increase in urbanization, and favorable demographic environmentis other positive factors.

1.2.1. Factors Affecting Online Shopping

The increasing popularity and patronage for virtual shops or e-commerce outlets are due to many factors. Some of the major reasons for the growth of online shopping in India are as follows:

- **Customer Friendly Shopping*:***The customer purchasing products online has no chance of touch and feel. The trial for size as well as theappropriateness of fashion were also problems. The online players are addressing this risk by adopting measures like: 'no questions asked 30-day return policy', better reverse logistics and ability to visualize the appropriateness of fashion through virtual technologies. Another risk is payment before delivery. This is addressed through cash on delivery. Now it is also possible to swipe credit/debit cards with the delivery person towards payment for the purchase. The risk of breakages in the product is addressed by better packaging technology as well as easy replacement policy of the e-commerce companies.

- **Convenience:** One of the major reasons for the growth of the online business is the convenience of shopping from home. The door delivery and increased security in the payment processes have improved the convenience of e-commerce mode of transactions.
- **Deployment of Technology:** Online shopping has been a new experience for many Indians. This entails anxiety since the customer may not be aware of the next step in the transaction process. The companies are addressing this through automatic chat clients, better ease of use, predictive technologies and reducing the steps in the transaction process. The payment confirmations as well as regular updates on the order process, delivery schedules, etc. also address the anxiety of the customers. Better customer service through technology, call centers are also helping address the anxiety of the customers.
- **Pricing policy:** The online shops are still the expansion mode. They are looking for new customers and price discounts is a very useful tool for attracting customers. The operating expenses for the online shops are less compared to the physical stores. The online retailers may display more products, optimize inventory, reduce the cost of personnel and therefore may provide products at a lower price. However, this price driven expansion may not be possible forever, and e-commerce companies should address this challenge soon.
- **The quality of products:** The customer desire quality products for their need satisfaction. In many cases, the products in the offline and online are of the same brands and models. However, the companies are introducing their new products in the online space since the cost of testing the viability of the product online is less. The mobile phone manufacturers are distributing their new phones with exclusive agreements with the e-commerce companies. The risk of low quality is a hindrance addressed through

their turn and replacement policy. As the market models in the online retail mature, the perceived difference in quality will also reduce. The online players are giving special assurance on behalf of the sellers regarding the quality of the product. They are ensuring that the promised product is what is delivered to the customers.

- **Variety:** Variety refers to the range of products in the portfolio of choices offered by the retail store. Since stocking is not a constraint, online stores have larger catalogs. Technology is also making comparisons easier. This choice of a large portfolio coupled with the convenience of home shopping is propelling the growth of online retailing.
- **Online trust:** There is an enormous uncertainity in the online shopping for customers. The possibility of being cheated is a genuine concern. The e-commerce firms are therefore investing in creating a positive attitude for their business. The websites are building trust with the customer for quality products, timely grievance redressal, payment security, better logistics, etc. The customers will be happier to address their needs through online shopping as their confidence and trust in the online shopping increases.
- **Product Delivery time:** The time lag between order and delivery is a major challenge to the online shops when compared to the offline models. This is an even bigger concern for processed ready to eat foods, fruits, vegetables, groceries, etc. Companies are innovating on the delivery schedules, expanding stock points and setting expectations of the customer at the time of purchase decisions.
- **Tastes and Preferences:** The tastes and preferences of different customer groups vary. The online shops have the possibility of customizing the display sequence of their portfolio depending on the past interaction with the customers. This enhances customer experiences with the online shops.

- **Information:** The availability of information about the products is no longer restricted to select sources. The customers can examine the information available on social media in addition to the traditional sources of company communications. The online shops will address this concern better since the managements of e-retailing companies are technology savvy and deal with data on a regular basis.
- **Discreet Shopping:** Purchasing personal items such as lingerie is always a problem for new customers. The online shopping is very discrete since it is carried out in the privacy of home or office. The delivery is also discrete since the e-commerce companies pack the original packaging in their standard packaging, increasing the discrete nature of the purchase.
- **Discounts:** The retail business in India is driven mostly by the sales promotional schemes. These schemes provide products at a lower price to the customers or better value to the customer. The online business or e-commerce sites are currently acquiring new customers and increasing customer base through price discounts on the products offered. These discounts are offered on the price of specific products; cash back offers through specific purchase modes and special schemes for different bank credit and debit cards. Thisentails customer to get additional saving for online transactions. The traditional physical stores also provide discounts for increasing the sales volume. This may be due to the promotional offers of the manufacturer or brand; stock clearance sales; festival offers; etc.
- **Reduced Delivery Times:** The tradition physical retailing provides instant gratification since the product delivery is mostly immediate. The online transactions lead to delayed gratification for non-digital products since there is a delay due to delivery period. In cases where the product requirement is immediate with no waiting time, offline shopping is preferred. The e-commerce sites are addressing this problem by reducing

the delivery time for priority purchases, communicating delivery dates at the time of the transaction and offering faster delivery modes. The grocery retail firms like bigbasket.com promise delivery during late evenings also.

Products and services tie-up: Currently online transactions are preferred in case of products which are more suitable for immediate online delivery. Services such as ticket booking, recharges, bill payments, etc. are more prevalent in the online transaction space. In order to increase the range of goods and services offered, E-commerce companies are entering into exclusive distribution agreements with different service providers as well as manufacturing units.

1.2.2. Technology Trends in Retailing

The retail business is undergoing changes due to developments in technology related to different business functions. The customer nowadays is more aware of digital technologies and may be termed as a digital customer. The shopping experience between online and offline is becoming seamless. The customercan shift from accessing information online to purchasing offline and vice-versa. Technology integration is helping the customers to increase their experience both in online as well as offline shopping.

Technology innovation in the area of data management and analytics are providing insights into customer behavior. The improvements in the hardware and software of Information technology is leading to real-time support for analysis and actions regarding customer offers, discounts, direct marketing, etc. in the online retail business. In the offline retail markets, the physical shops can optimize their product displays, space, product placement, etc. due to technology innovations.

A study on technology trends in retail reported by Accenture in its Retail technology vision, 2014 provides an outline regarding the retail industry. The technology trends are opportunities and threats depending on the ability of the business to handle the dynamic changes and improve their business activities for better customer relationships. Three key areas are identified to report the technology innovations - customer access devices, social media technologies and technology in stores.

There is an increasing penetration of handheld devices such as tablets and smartphones. The Internet of Things (IoT) devices such as smart watches, networked devices, etcare also becoming more popular. Appropriate investments in the technology applications will enable retailers to promote theintegration of online and offline purchase experiences. The personalized devices also help retailers to have more customized relationships with individual customers.

Another area of technology innovations is the communications that are possible through Social Media. The data of different individual users combined through various social technologies provide large data to retailers for analyzing the local markets, identify the emerging trends, and respond with appropriate offers to various customers. Social media today provides sufficiently rich data to help predict demand for products. It also is capable of influencing the shopping experiences for customers and make it more convenient and personalized. It provides support for online shopping sites in a display of products and also offline in-store displays.

The online virtual stores and the offline physical stores are both undergoing changes due to technology innovations. Some of the technologies influencing the online and offline shopping experience include virtual reality, 3Dprinting, and mobile applications. The advantages to organized retail are due to meticulously designed delivery logistics contributing to better customer experience.

1.2.3. Factors Affecting Conventional Retailing

Offline shopping involves transactions in the physical stores. Factors that affect offline shopping include restricted choices, time spent in travelling to the store, actual time spent in the store, etc. The factors that influence the customers' choice to shop in the physical stores are as follows:

- **Limited choice:** The varieties of products available for satisfying specific need are limited in offline retailing. The retail space may be occupied by old products up for discount and sale.
- **Time-consuming:** The transaction in the offline markets involves travel time and shopping time for the customers. Distance from home or workplace to the retail location. In offline shopping, the customer must physically move from one shop to another to compare products available in multiple shops which are comparably very easy in online shopping. Technology is making comparisons between products sold by multiple sites easy and increasing customer experiences.
- **Information:** The customer has access to controlled communications and messages of the retail outlets and business organizations. They also can get user generated information through review sites, social media, etc.
- **Authenticity:** The customer can physically examine the products in offline shopping. Hence it is considered more authentic than online shopping. Compared to online shopping, the customer is more confident about the authenticity of the product he/she is buying.
- **Tastes and preferences:** The tastes and preferences of the customers are prone to change over a period of time. The retail products of personal nature are required to address the specific natures of the customer's preferences. Therefore, offline retail is

more preferred for fashion products, jewelry, etc. Another preference of customers addressed in thecase of physical stores is the option of negotiation or bargaining. Customers who enjoy bargaining also prefer offline shopping.

1.3. Electronic Retailing

Retailing through the virtual stores available to the customer over the Internet is termed as electronic retailing or e-tailing. The sale of products over the Internet is popularly attributed to the customers' personal computer. Amazon has created a competitor in the book segment to Barnes and Noble a leading bookseller with physical outlets. This market is growing, and retail business in India is undergoing changes because of electronic market spaces. The traditional retailers are also supplementing their physical stores with electronic virtual stores to improve their performance. Electronic retailing is increasingly becoming popular in India due to technology penetration in mobile handsets and the Internet. The most sold product categories in electronic retailing in India include Mobiles and mobile accessories followed by Apparels, Footwear,Home appliance, and personal items.According to Internet and Mobile Association of India (IAMAI), (2016) "the market for Consumer durable items along with kitchen appliances was estimated at around INR 3,404 crores (US$531 million), and themarket for Laptops/Tablets/Netbooks is estimated at INR 2,780 crores or US$434 million". The estimated market size for Home Furnishing is INR 1,059 crores or US$165 million) and Books is INR 648 crores or US$101 million. The use of credit/debit cards to shop online is increasing though, 45% of online shoppers reportedly prefer cash on delivery mode of payment over credit cards(16%) and Debit Cards (21%). Only 10% opted for Internet Banking and alittle 8% preferred cash cards, mobile wallets, and other such modes of payment (IAMAI, 2016).

1.3.1. Technology Impact on Electronic Retailing

The technology in retail has brought about drastic changes in the business operations of online shopping sites. The noticeable shift is accessing the Internet via Smartphones, Tablets, and laptops. According to the report by Internet and Mobile Association of India (IAMAI,2016), the Mobile Internet user in India is to be expected reach 420 million by June 2017with the rural areas having higher user rate than urban areas. Some of the key points affecting technology innovations and adoption in electronic retailing are as follows:

- Low-priced smartphones capable of accessing the Internet
- Easy availability of 3G and 4G network even in the rural areas.
- The rise of the middle-class with less time for shopping
- Customer acquisition efforts through deals, discounts, free delivery, etc
- The increase in the use of digital payment mechanisms such as Mobile wallets

1.3.2. Internet penetration in India

According to The Economic Times news report (2016), "Internet penetration is set to increase from 32% in 2015 to 59% in 2020". Another report estimated that "India will have almost 320 million online shoppers by 2020 compared with 50 million in 2015". The Per capita incomes in India is likely to double by the year 2025 creating a more affluent aspiration customer base.

According to TRAI report (2017) as of January 2017, India has a tele density of 84.09 percent and Indian telecommunication industry reaches to majority of the population. The Internet subscribers are 367.48 million with 61 percent of urban population and 14 percent of the rural population having access to Internet. The Internet usage in India is increasing year on year at a very fast pace and in 2016 it is estimated that 34.8% of the

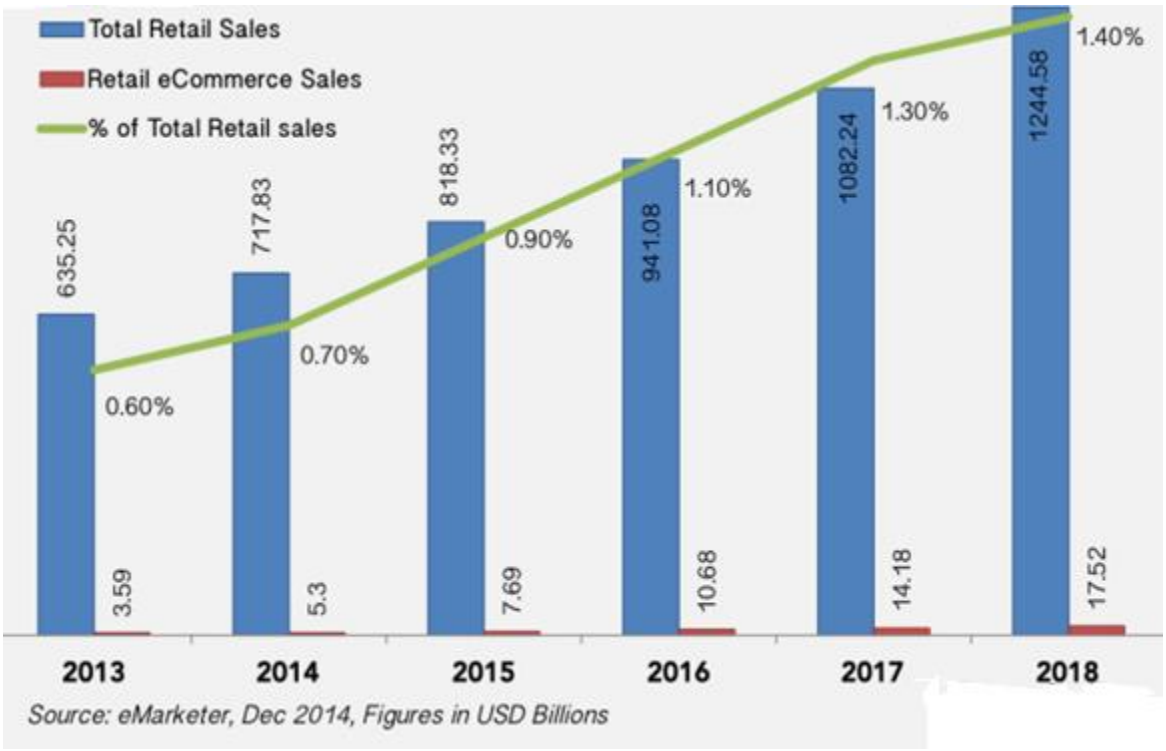
Indian population of around 132 crores are Internet users. This may be attributed to the decreasing costs of smartphones, increased access to Internet in the rural areas, and the focus on digital solutions to governance issues through Digital India programs. It is estimated that the Internet users in India will be 720 million by the year 2020.

1.3.3. Electronic Retailing in India- Future Trends

Thepopularity of online shopping in India appears to be driven by factors like convenience, and low prices. The growth of smartphones is another factor driving the future of online shopping in India. Online retailers have developed mobile applications for better customer experience during mobile based purchases. The increasing convenience of review products through hand held devices is supported by personalized offers by retailers through data mining and social networks. Retailers have adopted technologies and business processes for seamless shopping experience between devices in the market. As stated by 'Sachin Bansal', the co-founder of a popular Indian e-retailing company, Flipkart, "Indian electronic retailing market is supposed to reach $50-70 billion by 2020." The top three online retailers in India Flipkart (including Myntra), "Snapdeal and Amazon capture 83% of the market. Flipkart is th leader with 45% market share, followed by Snap deal at 26% and Amazon India at 12%. At $13.8 billion, the Gross Merchandise Value (GMV) of the top three e-commerce companies exceeded that of the top 10 offline retailers at $12.6 in the year 2016".

One of the challenges in Electronic retailing in India is the delivery time. The retailers are examining possibility of delivery through drones which can fly and not get stuck in traffic. Drones are expected to deliver to customer address provided, at significantly lower cost.

1.3.3.1.Figure 1.1 Total Retail and E-Commerce Sales in India (2013 – 18)



The Figure 1.1 discusses the trends of the e-commerce from the period of 2013 to 2018. The percentage of total sale has been increasing from 0.60% to 1.40%, and total e-commerce sale has increased from 3.59 USD$ to 17.52USD$ from 2013 to2018.

1.3.4. Chapter Conclusion

This chapter gave an introduction of the retailing industryinIndia.The Indian retail sector has undergone a significant transformation during the last twenty years. Customers' long journey from the conventional mom and pop store (Kirana store) shopping to electronic retailing marks a significant shift in the overall experience. Technology has played a great rolein this transformation. The chapter also discussedIndian retail experience from 1970'ˢ to 2000'ˢ, various retail formats in india, advent of electroncic retailing, factors affecting online and offline shopping, technologly trends in retailing, internet penetration in india, future trends of electronic retailing in india.

2. INTRODUCTION

This chapter presents a review of the existing research concerning the fundamental aspects of consumer buying, purchase intentions in online and offline purchases etc. In-Depthreview of the literature has been done to gain a deeper understanding of existing research about online & offline customer shopping. The review of literature helps in understanding the major dimensions considered by while making a purchase decision.

Theories pertaining to consumer behavior and consumer buying decision process were reviewed. The literature review has examined the interrelationships among price, quality, value, satisfaction, and loyalty in the context of customer shopping.

2.1. Review of Literature Background

Jarvenpaa & Todd, (1996), noted that consumers' perceived risks associated with online retailing have received limited attention despite their implications for e-commerce. Although, some early research suggests that risk perceptions may play a minor role in the adoption of online shopping. A study carried out by Dabholkar, Johnston, & Cathey, (1994),opined that technological advancements have led to the growth in technology-based self-service and thereby impacted the way business is transacted. According to, Iacobucci (1998), the Internet is a highly-structured distribution network. It is designed for one-to-many, many-to-many and many-to-one types of connections, whereas traditional channels are characterized by mass marketing and the manufacturer or retailer-centric connections". The study notes that the internet plays a key role to success the electronic retailing business in urban and rural emerging markets in the country. Girard et al., (2002), Klein, (1998) and Dhar and Wertenbroch, (2000), observed that "in the case of apparels the acquisition of product information ishard and

the quality evaluation is possible only after consumers purchase and use apparel goods. Apparel is considered as a hedonic product, as it enables customers to achieve pleasure, fun, and experiential consumption". Finding the suitable product on the website is quite difficult for the customer because size, colour, and fit measurement is more important for the customer in apparel shopping on website shopping.

Another study conducted by Donthu and Garcia, (1999), found that internet shoppers possessed different characteristics than traditional buyers". Philip Kotler, (2000), remarked that "in the field of business, change is occurring at an accelerating rate. Today is not like yesterday and tomorrow will be different from today. Continuing today's strategy may be risky; so is turning to a new strategy. Technology will continue to advance". Milne (2000), has mentioned in his study that **"**customer-oriented Internet shopping is focusing oncustomer personal data, privacy- and security-related issues. The study suggests that these issues may play a significant role in the development of online retailing.

Andrew and Currim (2000), observed that compared to traditional supermarket shoppers, online shoppers are less price sensitive". Chaing and Roy (2003), have focused on "the choice of the customers to shop on the internet or at the physical stores during the information acquisition period. A convenience sampling technique has been adopted to collect data from 34 students enrolled in the undergraduate marketing class. 56 products were developed based on the popularity of online shopping. The results showed that the consumer perceives shopping offline as inconvenient, online shopping intention was expected to be of greater help in searching products than experiencing products.

According to, Joines et al. (2003) examined the customer lifestyle perspective, the socio-demographic characteristics of the consumers, their way of life and patterns of spending money and time. This realm of research also includes studies that focused on buying motives, needs, interests, and values. Some of the important consumer motives identified in this stream of the investigation include the perception of time control and a need for social interaction. Another study carried out by Broekhuizen and Jager (2003), offered a better understanding of channel choice by developing a theoretical framework that shows the relationship between the antecedents and mediators of perceived and purchase intention in both online and offline shopping channels. The result indicates the primary determinants of channels choice and enables comparison between online and offline Shoppers' perception. A study by Danaher et.al (2003), focused on the loyalty of the 100 brands over the online shopping and offline shopping of 19 products of the grocery. They compared the grocery items of both the shopping formats with Dirichlet model; this model has very dominant features which give the specific classes for the brand choice and also offers a model for the purchasing behavior. However, in the case of the small share brand, it is just reversed. However, in the fabulous shopping, the expectations, and the observations are not at all links to the brand share. Another study carried out by Evanschitzky et al. (2004), revealed that the most prominent difference between traditional retailing and e-tailing is the replacement of human-to-human interaction with human-to-machine interaction. While store layout is one of the decisive factors in traditional retailing, screen depth, browse and search functions, indices, image maps, and e-store design quality are an integral part of e-tailing.

Scarborough and Lindquist (2006), have conducted an empirical study on E-shopping in a multiple channel environment in which a segmentation scheme is suggested based

on patterns of e-purchasing and e-browsing including browsing the internet with planned purchasing in an offline channel. The study examines self-report of browsing and purchasing using five specific non-store channels like internet, television, infomercial, advertising that accompanies regular television programming, television shopping channels, and print catalogs. The finding of this study shows that the buyers who browse or purchase online, differed in their use of multichannel options related to their perception of ease. Some customers want to buy in the store setting and do not want multiple forms of non-store shopping. Other like to browse different non-store media, they extended their browsing to the internet, however, kept their loyalty to purchase in store. Another study carried out by Devaraj et.al (2006) critically examined online channel preferences. It has examined the behavioral and economic features that add to online consumer's satisfaction and further head to their choice of online channel. The results indicated that asset specificity and uncertainty structure variablesin the electronic marketplace are relatedto the conduct constructs such as personalization, website design, time responsiveness, security and reliability of the online channel. Further, it was found that personalization, time responsiveness, security, and reliability are also significantly linked to the consumer satisfaction outcome with the shopping channel. Website design has no significant effect on online consumer's satisfaction. Finally, it has indicated that satisfaction resulting from the above conduct variables was strongly related to the customer's preference of online channel choice.

According to, Ghazali et al. (2006), the customers who value convenience aspect are more likely to make purchases online. Moreover, the consumers for whom social interactions and product experience are more important, they tend to be less interested in the use of the internet for shopping and thus shop less frequently online and spend less money on e-commerce. Soopramanien and Robertson (2007), in the studyin UK on

Acceptance and practice of online shopping", stated that the "online consumers choose the different course of action based on the apparent beliefs. They found that socio-demographic variables, attitude, and beliefs towards internet shopping affect both decision of customer practices and use of online shopping channels.

Jarvelainen (2007), has analyzed in an empirical study in Finland that many online information seekersdecide to stop the shopping process just before the finishing point of the transaction. The reason behind this is intensely rooted in the internet based trust outcomes. The study focuses on e-commerce security and confidentiality issues that customers consider while selecting their purchasing channels. The finding of this study show that constancy, trustworthiness, and usefulness, as well as ease of the use of the system, are essential, while the first imprint of an online seller is significant, considering the behavioral intention. Venkateswarulu and Uniyal (2007), identified five factors defining attractiveness of a shopping mall. These were: (1) Appeal and convenience. (2) Amenities and atmospherics. (3) Ambience. (4) Personnel (5) Parking and seating, restrooms (utilities), security and size of the store.

Tripathi and Sinha (2006) have studied retail store choice not from the perspective of an individual but of the family. They argue that it is mostly the family and not the individual who is the consumer of the retail offering. Leung and Oppewal (1999), had conducted research on the roles of store and brand names in consumers' choice of a retail outlet and concluded that a high-quality brand or high-quality store is sufficient to attract the customer to a retail store. The study also revealed that store names have a larger impact on store choice than the brand names of the products that these stores have on offer. Suki and Suki (2007), based on an empirical study conducted in Malaysia "created a model in which they identified the influence of the value, risk and the actual

enjoyment of the customers of online shopping. The customers of online shopping had a perception about the involvement of risk in the shopping, and their risk is mostly related to the security and the privacy. It includes safety and confidentiality of the personal information of the customer, the transaction of online shopping, the quality of the product and the uncertainty about the result whether the product will reach the consumer or not. Kiran et al. (2008), observed that "accurate information about product features, product warranties, avenues for customers' feedback complaints, and certification of the websites were factors that affected online shopping confidence among Indian customers. The author also found that online shoppers were more concerned about product features, product quality and quantity, customer care, other information about the product.

Prasad and Aryasri (2011), observed in their study that a variety of demographic indicators were related to grocery store choice. Moreover, another study by Gupta et al. (2010), found in their study that Indian customers were found to be more uncomfortable to disclose personal information on the internet compared to US customers. Weber and Roehl (1999), found in their study that people who sought information by using the internet had higher educational, occupational, and income levels. In another study Donthu and Garcia (1999), investigated online shopping orientations. Regarding shopping orientations, they found that online shoppers were likely to be influenced by the convenience, impulse, and variety-seeking orientation.

Wolfinbarger and Gilly, (2003), identified in an empirical study that the dimensions of website design (usability, information availability, product selection, and appropriate personalization), along with fulfillment/reliability, customer service, and privacy/security influenced customers in the selection of online shopping sites. The

study carried out by H and Hsu (2008), in Taiwan opined that online shopping conditions are different from regular shopping in many ways. Shopping site looks and fulfillment systems are like a first employee, every online deal involves some third parties, such as credit card clearance companies, and delivery firms. So, a new customer satisfaction index is required, to quantify customer satisfaction in the online atmosphere. The study also examined 'customer faithfulness' towards a shopping site. The outcome shows that customer satisfaction is an essential feature that decides online customer loyalty. Online trust makes a positive impact on perceived value, customer satisfaction, and customer loyalty. This result suggests that e-service Quality might be more significant than other factors. There is some deficiency of study, i.e. it is based on one -site random sample scheme which limits the generalizability.

Liu et.al (2008) in an empirical study on Chinese customers for shopping online remarked that the wide range of commodities and competitive price is important because the online customer can compare the price with one click. Detailed and complete product information should be given because buying decision is only made with the information available online. The first impression is the design of the website, and it's content. The Web site transaction capability is a necessary element to complete a transaction. Convenience and easy to use features can save time, security and privacy. Adeline, (2008) found that the web navigation behavior is the important factor in determining the probability of online purchasing. The most dissatisfying factor was a slow downloading rate of web pages. The finding provides some insight while designing website, taking into consideration that it should be easy to use,attractive and user-friendly with faster downloading time. Jiang et al (2008) in an empirical study examined US customers' worries on internet security. Concern regarding internet security while shopping over the web can influence online buying behavior. A good

strategy to increase consumer trust while ordering online could be third-party certification programs.

Mohanty & Panda (2008), opines that retailing as a sector of Indian industry occupies a prominent place in the socio-economic growth strategy of the country. India is witnessing retailing boom being propelled by increasing urbanization, rising purchasing power parity (PPP) of ever growing India's middle class, changing demographic profiles heavily tilted towards young population, technological revolution,globalizationdrive,etc. Hausman and Siekpe (2009***)*** analyzed the effect of web interface features on consumer online purchase intentions. E-commerce system is different from the traditional information system. It has both features of information system and marketing channels. It contains machine and the human element. They concluded that both human, and computer factors are necessary antecedents for online shopping.

Tabatabaei (2009), has explored the opinion of the customers who purchased online and the customers who purchased from offline markets. The objective is to know why the traditional customer chooses to shop online and identify the factors that influence to purchaseonline and the factors that deter them to use the sites for shopping. A survey of 264 respondents was conducted in a small mall. All the respondents of this study were literate and had knowledge of computer and the internet. The survey consists some of the questions like demographic profile, computer knowledge and the experience over the web.

Hahn and Kim (2009), examined the influence of consumer trust and perceived internet confidence on consumer apparel shopping intentions through the internet or the online retailing operated by a multi-channel retailer. A total of 261 students in a large US

Midwestern University participated in the paper based survey and provided usable responses. Structural equation based modeling was used to test the hypothesis. They found that the consumer trust in an online retailer was a significant predictor of perceived internet confidence and search intention for product information through internet retailer. Search for product information through the online store and perceived internet confidence were significant and vigorous predictors of consumer's behavioral intention towards the online shopping. The findings of this study suggest that retailers can offer the internet channels as part of the multichannel retail strategy and provide consistent service throughout their various channels.

Riley et.al (2009), inquired why and from where the customers get influenced to purchase grocery from online shopping. Many shoppers have revealed that they started the online shopping for grocery once their initial point of shopping of grocery is providing convenience and comforts to shop online. Bhandari & Kaushal, (2013)**,** in their study on online consumer behavior opined that the reasons for using online shopping include factors like trust, information about the product and services, convenience, easy shopping. Author has explored in their studies like what factors are motivated to the customer to purchase the goods and services on online, and they examined the reasons and benefitsfor the consumer on online shopping. Start-up India report(2016)**,** e-commerce websites are a medium of information and product search before shoppers buy them offline, the key deterrents to e-commerce include product quality concerns, lack of immediate delivery and fear of wrong product and the habit that some people always prefer visiting a physical shop. Based on the surveyreports the study says that lack of information is not available on the website about the goods and services. However, the customer is more concern about the quality of the product and lack of delivery facilities to the rural and urban areas.

Chaing and Dholakia (2014) identified three variables that affected the choice between online and offline buying". The variables include the "accessibility features of the shopping sites, the "type of the products and their characteristics", and the "actual price" of the product. The study revealed that "the accessibility and the convenience of the shopping sites create the intention in the customer to purchase or not. When there is difficulty faced by a consumer to purchase online then the customers switch to the offline shopping for the acquisition behavior and similarly when the customers face difficulty in offline purchasing, then they go to the online purchasing. After relating both the channels of shopping the customers reported that the online shopping is more convenient for them and gives more satisfaction".

According to Reliance Retail report (2014), both online and offline shopping are clear channels to reach customers who are shopping both online and offline for their needs. India is not an evolved market. There is no pure-play offline or online consumer. It is not a water-tight compartment. Selvakumar (2014), examined "customers' perception of the products sold online and the issues considered important in online shopping. This study was conducted among the online shoppers at Coimbatore which is in Tamil Nadu state. It analyzed the impact of customer opinion and attitude on online shopping. A questionnaire was designed to collect the data from the respondents; these questionnaires were given to college going students. The total sample size is 150 respondents. The findings of this study show that online shopping is witnessed to improvement and accessibility to influence the customer's intention to shop online.

Iyer and Eastmen (2014), found that the customers who are senior in age and are literate, more up-to-date and who are more aware of the technology and those who have a positive behavior towards online shopping and internet are more inclined towards

online shopping. However, the customers who are young in age, less aware of the internet technology and shopping sites were less involved in online shopping because they do not have a positive attitude towards online shopping and rather they are much more interested in offline shopping. The choice of a store is affected by the brand being bought as well as the personal values that the shopper cherishes (Erdem, Oumlil, and Tuncalp,1999). Hence, acustomer with high personal gratification value would attach more importance to store status than a self-reliant intellectual type buyer. Customers can quickly name the store that provided with the attributes such as 'most convenient' or 'lowest prices' hence reducing the cognitive dimension in the decision problem".

Sanderson (2000), opined that traditional retail businesses and even catalog marketers faced a critical decision – to accept a new, yet undefined business model including e-commerce or to retain their old business model and risk becoming obsolete and left behind by new, Web-based competitors. Young, smart, intelligent entrepreneurs, are a potential threat to traditional retailers.

Hudgins (2000), observed that establishing a retail web site would generate new sales from internet buyers, and it would increase sales from traditional channel customers who might now buy from multiple channels. Motives for shopping in traditional retail channels have long been a focus of consumer research. Babin et al. (1994), identified two principal shopping purposes: shopping for fun (hedonic) and shopping with a goal in mind (utilitarian). Using a qualitative analysis,another study carried by Wolfinbarger and Gilly (2001), showed that these two motives are also typical of online shoppers. Hedonic shoppers (referred to as experiential shoppers in the Wolfinbarger and Gilly study) are motivated by their involvement with a class of products that directs their

browsing the internet through auction sites and visits to hobby-related sites. In other words, the hedonic shopper typically seeks a product specific online shopping experience.Alreck and Settle (2002), found that Internet shopping was viewed as a time saver than traditional modes of shopping**.** Bhatnagar et al. (2000), found that customers' perceived convenience of shopping on the internet had a positive impact on online purchase behavior. In examining the relationship between age and internet shopping motivations, Dholakia and Uusitalo (2002),examined the role of age and attitude of the customers in online shopping. The study found that younger consumers reported more hedonic and practical benefits of online shopping than older users".

Shanley (2008), investigated the role of demographics in online shopping. The study stated that customers who sought information by using the internet had higher educational, occupational, and income levels. Though demographic variables are not extensively studied, males were found to shop online more than females (Li et al., 1999). Sin and Tse (2002) have studied the role of various demographic variables like education level, gender, age and level of internet usage on online purchase intentions. They found that the profile of online shoppers tends to be male, well-educated, between 21 and 30 and have a high degree of internet usage. The findings of this demographic variable are most of the male customer are adopting online shopping than female because, well educated, among age between 21 to 35 years and have a high internet usage among male customer and another variable like income and occupation level also a key role in male customer.

Various researchers studied the role of website information in online shopping. There is very limited empirical research focusing on Indian online shopping. One recent study showed that accurate information about product features, product quality, product

warranties, avenues for customer feedback complaints, and certification of the website are factors that affect online shopping confidence among Indian consumer (Kiran. *Etal*...2008). One study observed that a variety of demographic indicators were related to grocery store choice (Prasad and Aryasri 2011). Indian customers were found to be more willing to disclose personal information on the internet compared to US customers (Gupta *et.al*. 2010).Website information that adapts to Indian culture was found to be more favorably perceived in a study conducted by (Singh *et al*...2006). Website information that was more culturally congruent was rated more favorably on navigation, presentation, purchase intention, and customer attitude towards the website. Researchers have asserted that it is possible that cognitive abilities differ in a culture like India where choice is constrained because the economics and marketplaces are still developing (Mahi and Eckhardt, 2007). An empirical study, examined the role of website design (usability, information availability, product selection, and appropriate personalization), fulfillment/ reliability, customer service and privacy/security on online shopping (Wolfinbarger and Gilly, 2003). It can be summarized that various research studies examined the role and impact of website information (how the website information affected and was helpful to the customer) in acquiring the product information from the online shopping website. The website information plays a vital role in search about the product reviews, customer purchase intentions, ease of use and convenience and comfort to the customer.

Customers who make online purchases cannot use or consume goods immediately and must wait for the product delivery (Ryan and Val Verde, 2005): The product delivery duration occurs between the time of online purchase and the actual delivery of the product. Product delivery delay is defined as arrival of the product later than promised time (Cho et al., 2002). Another study by Ahmad (2002), indicated that poor customer

experience, such as product delivery delay, may cause customer dissatisfaction. Diaz and Ruiz (2002), stated that waiting time positively influences customer anger and negatively affects repurchase intention. Kim (2005), proposed in his study that delivery time is theprimary factor of online consumer repurchase behavior. Product reach or delivery to the customer on time is very essential for the retailers, delay in product delay may cause dissastification and its leads to customers diversifying to an alternate service provider/shopping channel. Moreover, waiting time matters to the customer in online shopping. With regard to offline shopping there is no need to wait for product delivery. The customers can choose to pickup their goods with them and the customers are responsible for their goods for any damage or difficulties during the product delivery.

In this section, the convenience of shopping of both online and offline section concern many researchers have express their views on the convenience of shopping. The study conducted by Beauchamp and Ponder (2010), is limited to the convenience dimensions common to both online and offline shopping settings and examines the relative importance of each dimension from the customer perspectives of online and offline shopping, rather than exploring the dimensions and their related items unique to online shopping.Much of the literature on consumer convenience in a traditional retailing environment has revealed two factors of primary importance in delivering convenient service to customers: time-saving and effort minimization efforts (Etgar, 1978; Kotler and Zaltman, 1971; Seiders et al., 2000, 2005, 2007; Yale and Venkatesh, 1986).Another study by Yale and Venkatesh (1986), developed six classes of convenience namely time utilization, handiness, portability, appropriateness, accessibility, and avoidance of unpleasantness. Similarly, Brown (1990), identified five dimensions of comfort, i.e. time, place, acquisition, use, and execution convenience. Further, he has noted that among these, the first four dimensions are closely related to

the four utilities promulgated by economic utility theory. Instead of going out for shopping the customer can just sit at home and do the shopping. Online shopping is convenient to the customer to purchase the product. Once the customer has decided on what to purchase the payment process is seamless, the order is delivered to the home. Online shopping makes things more convenient. One can have many choices over there in any types of material one wants to deal with.

Bellman, Lohse, and Johnson (1999), have examined in their study the relationship betweenDemographics, Personal Characteristics, and Attitudes towards online shopping. The authors found that customers who have a more wired (internet connected) lifestyle and who are more time constrained tend to buy online more frequently, i.e., those who use the Internet as aconventional tool and those who are more time-starvedprefered shopping on the Internet. (Bhatnagar, Misra, & Rao, 2000) have examined how demographics, vendor/service/ product characteristics, and website quality influence the consumer's attitude towards online shopping and consequently their online buying behavior.

An organizational advertising search well can directly inform its customers of its product's quality. Nelson (1974), argues in his study that brand advertising may be such a mechanism. Customer makes the distinction between types of goods search and experience. A searchasset's quality is verifiable on inspection, whereas the experience quality of product is hard to judge immediately. Therefore, only after the purchase and usage of a product can itsactualquality be revealed.

Economic models based on Nelson's work revealed that an established brand name can signal high quality of product (Klein and Leffler, 1981; Kihlstrom and Riordan, 1984; Milgrom and Roberts, 1986). Primarily, high product quality producers advertise their

brand heavily in the market, and expect to recover the cost of the advertising from many repeat purchases. Low product quality producers cannot mimic this behavior because the actual quality of product will be revealed before enough purchases have been made to recover its investment in advertising. If a seller chooses to produce ahighquality product, it can overcome the asymmetric information problem and differentiate itself from the low product quality producer by developing a brand name and advertising in the market.

Customer's product perception is the expected standard of product or service excellence. Although electronic shopping deals with physical and digital goods and services, the basic concept of product quality is not different from that of traditional commerce. The most influential factors appear to be product quality and product variety. Product quality means the actual functionality of the product, consistency between the quality specification on the websiteand real quality of the physical product. Variety is the assortment or a range of goods available at a store. Customers are likely to visit an e-retail website with a large variety and high-quality products. If the product quality meets their expectations, customers tend to regard the electronic retail website as useful and continue to visit it. RL Keeney (1999),opined that maximization of product quality is one of thefundamental objectives for shoppers.

The price of a product is one of the key marketing mix tools. Especially, in the Indian retail market, it is used to attract customers for specific goods and services. Knowledge of price is a psychological factor that is relevant to the success of any business. Price influences a customer's buying decision and at the same time, it can help the retailers to put pressure on customer who is willing to pay for the specific product. Instant price comparisons on the web, made possible by powerful search engines, make non-price

competitive advantages, such as service quality, which are critical in retaining and attracting customers (Jarvenpaa and Todd, 1997; Liu and Arnett, 2000).Fornell et al. (1996) also found that price perceptions affect customer satisfaction in a macroeconomic study involving seven industry sectors. When shopping on the internet, consumers cannot see or handle the product: they are unsure that what is represented on the web is consistent with what is received. In conditions characterized by such performance uncertainty, price perceptions likely play an increased role in determining both post-purchase satisfaction and intention to return (Jarvenpaa and Todd, 1997; Liu and Arnett, 2000). Thisis particularly the case for e-retailing because the product is not available for examination by the customer before purchase. So, customers are forced to depend on price cues. In such cases, the fairness of the price might be the dominant determinant of satisfaction and subsequent intention to return.(Grewal et al., 2010).The study found that the online environment provides online retailers with another advantage: they can identify the elements of their price promotions that consumers click on, as well as recognize their search process. For example, did the consumer click on a free shipping offer/ expedited delivery date or the price discount? Online retailers also could develop experimental web sites to track response times specifically and thereby gain additional insights into the depth and breadth of consumers' searches. What brings online customers back, primarily, is a sense of loyalty that comes from an internet company offering better service than the competition (Hoff et al., 1998).Consequently, much of the knowledge gained from offline retailing service research is still highly relevant in the online context. However, some service management issues may be unique to the internet environment. For instance, issues such as on-time delivery and ease of navigation have surfaced as critical elements of e-service quality, and the online

environment lacks most of the human interactional elements so vital to the traditional retailing service experience(Yang &Jun, 2002).

Table: 2.1. The Operational Definition of the Variables

Variable	Definition
Website Information	Website Information is defined as the dimension of website design (usability, information availability, product selection, and appropriate personalization), fulfillment/reliability, customer service and privacy/security (Wolfinbarger and Gilly, 2003).
Product Delivery Delay	Product delivery delay is defined as the purchased product arriving later than promised (Cho et al., 2002).
Consumer Buying Behavior	Consumer Buying Behavior Webmaster Defined. Consumer buying behavior is the sum total of a consumer's attitudes, preferences, intentions, and decisions regarding the consumer's behavior in the marketplace when purchasing a product or service
Online Services	Online services are important in business to consumer (B2C) e-commerce because they represent ways to provide on-demand solutions to customers strengthening customer–service provider relations, creating transactional efficiencies and improving customer satisfaction (Ruyter et al., 2001)
Quality of Product	Product quality is the actual functionality of the product, consistency between the quality specification of Internet shopping mall and real quality of the physical product. (Tony Ahn and seewon 2004,)

Customer Attitude	Lars Perner (2010),defines consumer attitude as a composite of a consumer's beliefs, feelings, and behavioral intentions toward some object within the context of marketing. A consumer can hold negative or positive beliefs or feelings toward a product or service.

The Table 2.1 explained the theoretical definition of various variables which are included in the study.

2.2. STATEMENT OF THE PROBLEM

Internet and telecommunication technologies enabled companies to offer products and services through websites/virtual stores even though buyers and sellers are located in different geographical regions. The buyers and sellers can transact almost in real time inspite differences in geographies, languages etc. Since the Internet is a virtual medium with many potential consumers, the online retailers should understand the wants and needs of such customers. It is importantto identify and analyze the factors that influence the customers' purchase decisions on the Internet as the new virtual market will bring significant differences to the customers as well as marketers. The internet is the common medium/platform for businesses, as well as a customers to sell/purchase anything at any point in time. Here statement of the problem is "to determine the consumer preference between online and offline shopping channels (i.e. preference to buy online or offline). The customers are using the internet to buy the products and services online and in addition they are also relying on internet to compare various features of the products, corresponding prices and aftersales service facilities.

2.3. NEED FOR THE STUDY

Indian retail market offers avenues to customers for shopping through online and offline channels. Internet penetration is spreading across India, gaining attractiveness for online buying. Customers have several benefits in online shopping namely the convenience of shopping from home, online comparison of product prices and features across various product categories among various online sellers. The impact of online retailing on traditional offline retailing is not yet clear. In fact online and offline channels can complement each other. Thus, this study has been undertaken to make a comparative study of online and offline shopping preferences among Indian shoppers.

2.4. RESEARCH GAP

After an extensive review of the literature the following gaps were identified in the existing research:

1. A majority of theexisting research pertaining to retailing in the Indian context has focussed on issues like customers' attitudes towards online shopping, factors affecting online shopping, consumer buying behaviour in online shopping, determinants of choice of online shopping, linkages of variable of online shopping, organized and unorganized retailing, customer perception, trust, motivational factors, website design, delivery related issues in online shopping.

2. A majority of studies conducted in the area of Indian retailing have focused on online shopping and organized retailing. Very few studies have been done making a comparative analysis in the context of online and offline shopping/ buying (across products and services). Factors affecting customer's choice of shopping anda comparative study of online &offline shopping in the Indian

context would be very much apt in the current scenario. The study would be helpful to understand the reasons behind customers' preferences in choosing online and traditional retailing patterns.

2.5. RESEARCH QUESTIONS

The study aims to address the following research questions:

1. What factors influence consumers to shop online rather than offline and vice -versa?
2. Are demographic factors playing a major role in the choice between online and offline retail formats?
3. What are the consumer attitudes towards online and offline retail shopping?

2.6. RESEARCH OBJECTIVES

The following research objectives were stated based on the research gap and research questions for the study.

2.6.1. Major Objective

To determine the factors that affect customer's choice of shopping in online and offline shopping in the Indian context.

2.6.2. Sub Objectives

1. To study the preferences of customers for online and offline shopping and reasons for those preferences.
2. To identify the type of goods consumers, prefer to purchase from online and offline retailing channels.

3. To examine the role of demographic factors in the consumers' preference for online or offline shopping channels.

2.7. RESEARCH HYPOTHESES

H_1: There is a significant relationship between website information & customer attitude.

H_2: There is a significant relationship between Product Attribute & Customer attitude

H_3: There is a significant relationship between Product Delivery & Customer attitude

H_4: There is a significant relationship between Price & Customer Attitude

H_5: There is a significant relationship between Online Offered & Customer Attitude

H_6: There is a significant relationship between Website Information & Customer Buying Behavior towards Online Shopping.

H_7: There is a significant relationship between Product Attribute & Customer Buying Behavior towards Online Shopping

H_8: There is a significant relationship between Product Delivery & Customer Buying Behavior towards Online Shopping

H_9: There is a significant relationship between Price & Customer Buying Behavior towards online Shopping

H_{10}: There is a significant relationship between Services Offered & Customer Buying Behavior towards Online Shopping

H_{11}: There is a significant relationship between Customer Attitude & Customer Buying Behavior towards Online Sopping

H_{12}: Relationship between Website Information & Customer Buying Behavior is mediated by Customer Attitude

H_{13}: Relationship between Product Attributes & Customer Buying Behavior is mediated by Customer Attitude

H_{14}: Relationship between Product Delivery & Customer Buying Behavior is mediated by Customer Attitude

H_{15}: Relationship between Price & Customer Buying Behavior is mediated by Customer Attitude

H_{16}: Relationship between Services Offered & Customer Buying Behavior is mediated by Customer Attitude

H_{17}: There is a significant difference in preference towards Online Shopping between Male & Female Customers.

H_{18}: There is a significant difference in preference towards Online Shopping across customers of different age groups.

H_{19}: There is a significant difference in preference towards Online Shopping among customers with different levels of education

H_{20}: There is a significant difference in preference towards Online Shopping among customer belonging at various income levels.

2.7.1. Online Shopping Moderation Hypotheses

H_1: Gender significantly moderates the relationship between website information, Product Attribute, Price, Services Offered, and Product Delivery towards customer Buying Behavior towards online shopping.

H_2: Age significantly moderates the relationship between website information, Product Attributes, Price, Online Services offered, and Product Delivery towards Customer Buying Behavior towards online shopping.

H_3: Education significantly moderates the relationship between website information, Product Attributes, Price, Online Services offered, and Product Delivery towards Customer Buying Behavior towards online shopping.

H_4: Marital Status significantly moderates the relationship between website information, Product Attributes, Price, Online Services, and Product Delivery towards Customer Buying Behavior towards online shopping. .

H_5: Income significantly moderates the relationship between website information, Product Attributes, Price, Online Services Offered, and Product Delivery towards Customer Buying Behavior towards online shopping.

H_6: The occupation of shoppers significantly moderates the relationship between website information, Product Attributes, Price, Online Services Offered, and Product Delivery towards Customer Buying Behavior towards online shopping.

H_7: Payment Methods significantly moderate the relationship between website information, Product Attributes, Price, Online Services, and Product Delivery towards Customer Buying Behavior towards online shopping.

2.7.2 Offline Shopping Mediation Hypotheses

H_1: There is a significant relationship between price & customer attitude

H_2: There is a significant relationship between store attributes & customer attitude

H_3: There is a significant relationship between service assistance & customer attitude

H_4: There is a significant relationship between customer attitude & customer buying behavior

H_5: There is a significant relationship between price & customer buying behavior towards Offline Shopping

H_6: There is a significant relationship between store attributes & customer buying behavior towards Offline Shopping

H_7: There is a significant relationship between service assistance & customer buying behavior towards Offline Shopping

H_8: Relationship between Price & Customer Buying Behavior is mediated by Customer attitude

H_9: Relationship between Service Assistance & Customer Buying Behavior is mediated by Customer Attitude

H_{10}: Relationship between Store Attributes & Customer Buying Behavior is mediated by Customer Attitude

2.7.3 Offline Shopping Moderation Hypotheses

H_1: Gender significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer buying behavior towards offline shopping.

H_2: Age significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer buying behavior towards offline shopping.

H_3: Education significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer attitude buying behavior offline shopping.

H_4: Marital Status significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer buying behavior towards offline shopping.

H_5: Income significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer buying behavior towards offline shopping.

H_6: Occupation significantly moderates the relationship between Store Attributes, Price, and Services assistance, towards customer buying behavior towards offline shopping**.**

H_7: Payment Methods significantly moderate the relationship between Store Attributes, Price, and Services assistance, towards customer attitude buying behavior offline shopping.

2.8. CHAPTER CONCLUSION

This chapter discussed the literature contribution of scholars and academicians in the field of the retail in India as well as abroad. The review of relevant literature has revealed that majority of the studies have been conducted outside the country (India). There are very few studies that were conducted Indian context. Most of the studies have

focused on the organized retail sector, while some of the studies focussed on online retailing. The literature review also revealed that the customers who were aware of internet technology, possess the knowledge of operating electronic devices like computers, and belong to high income groups, are engaged in the online shopping, and those customers who rely on credit availability, loyal to the brands, concerned about the quality of products, touch and feel of products are involved in the traditional shopping (offline shopping).The variables that have been used in various studieswere examined in-depth while framing the objectives for this study. The literature review revealed that customer shopping is a complex construct influenced by many factors includingconvenience, comfort, customers' perceptions, and attitude towards online and offline shopping, formats during the purchase of goods and services.

3. INTRODUCTION

The research methodologyadopted for the study is presented in the current chapter. The present chapter contains the research design of the study, a description of the population identified for the research and the sampling techniques used in the study. The rationale for arriving at the size of the sample, the method used for the collection of data and the instrument (questionnaire) used in the survey are also discussed. The section that deals with the questionnaire discusses the type of scale employed during the study. The questionnaire was used to know the customer preferences of shopping, perceived benefits of online and offline shopping(price discounts, logistics services, convenience or ease of shopping) and customer attitude towards online and offline shopping.The procedure adopted to collect the data is also discussed in the present chapter. The statistical tools and techniques used in the study for the analysis of the data collected are also presented in this chapter.

3.1. RESEARCH DESIGN

Research design describes the steps involved in obtaining the information needed to address the research questions. The research design of the current study is exploratory as well as descriptive in nature. An exploratory research design helps in exploring a problem or a situation in order to provide a deeper understanding of the phenomenon. The descriptive part of the study comprised, a non-experimental survey on the exploration of the key factors affecting customer choice of shopping of online and offline shopping in the context of India.

The study also evaluates thefactors influencing customer selection of shopping between an online and offline choice of shopping among the Indian customers. Moreover, the study also tried to explore the moderating variables that affect customers' choice of online and offline shopping. Thus, the nature of study is descriptive as well as

exploratory. The purpose of exploratory research design is to discover the different aspects of the study (Kothari, 2011). The study investigated and conceptualized the key dimensions of online and offline shopping factors. Finally, the study describes the state of preferences of shopping channels and factors affecting customer choice of shopping or customerr preference of shopping between both the shopping channels.

3.2. TARGET POPULATION OF THE STUDY

The target population of the survey comprised both online and offline shoppers.Target Population the Customers- those who have been actively involved in online shopping for the past six months as well as regular offline shopping in metropolitian cities, India.

3.2.1. Approachable Population

"The approachable population is a part of target population which depends on researcher's geography, time, or cultural characteristics (Wu, 2006)". The approachable population of the study was confined to shoppers available at various shopping malls at different metros cities in India. The shoppers who performed at least one online and one offline purchase during a month for the past six months from the period of data collection were considered as the respondents who were qualified for taking part in the survey".

3.2.2. Justification for the Target Population

- **Online Shopping**: India is adding three Internet users every second and is already the second-largest Internet market globally. According to the popular business news paper The Economic Time's news report in 2016, "Internet penetration in India will increase from 32 percentage in 2015 to 59 percentage in 2020. It also estimates that India will have almost 320 million customers of online shoppers by 2020 compared with 50 million customers in 2015". The

Per-capita incomes are likely to double by 2025, and this should drive higher aspiration of the Indian consumers.

- India's Business to Business (B2B) E-commerce market is projectedto reach 700 billion US$ dollarsby the year 2020 whereas the Business to Consumer (B2C) e-commerce market isexpectedto reach 102 billion US$ dollarsby the year 2020". The Online retail industry is projected to be at par with the physical stores in the next five years.
- Indian e-commerce sales are expectedto reach 120 billion US$ By 2020 from 30 billion US$ in Financial year2016. However, "India's e-commerce market is projected to reach US$ 220 billionregardingGross Merchandise Value (GMV), and 530 million of shoppers by 2025", led by faster penetration ofsecuretelecom networks, increasingoff internet and adoption of online services and better variety as well as convenience.
- **Offline Shopping:** TheIndia's retail market is to be expected nearly double to 1 trillion US$ dollars by 2020, from 600 billion US$ dollarsin 2015.Income growth, isdriven byurbanization, and attitudinal shifts of the retail market. While the overall retail market is expected to grow at 12 per cent per annum., the new trade online shopping would expand twice as fast at 20 % per year and traditional business at 10 percent.

3.2.3. SAMPLING TECHNIQUE

As mentioned earlier, the size of the population was considered as unknown. It is impractical to adopt random sampling technique due to unavailability of the entire online and offline shopping customer list. Thus, the study adopted non-probability sampling techniques such as purposive sampling.

3.2.4. SAMPLE SIZE

The current study aims to collect data from across India. Purposive sampling is used in identifying the respondents of the study. The data collection is carried out across five metropolitan cities in India – Hyderabad, Mumbai, Chennai, New Delhi and Kolkata. The targeted sample size in each city is 200 totaling to 1000 respondents for the study. After the data tabulation and purification, the valid samples are Hyderabad (184), Mumbai (175), Chennai (175), New Delhi (156) and Kolkata (170) totaling to 860 respondents.

The planned analysis involved dimension reduction through factor analysis. The data collected is divided into two parts to carry out Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The model is developed and tested for moderation effects.

3.2.5. METHODS AND PROCEDURES OF DATA COLLECTION

The study adopted offline survey methods for data collection. The offline survey method was done across the main cities in India like (Hyderabad, Mumbai, Chennai, New Delhi and Kolkata).Purposive sampling technique was adopted for the collection of data. The study carried out structured interviews with customers engaged in online and offline shopping from metropolitian cities like (Hyderabad, Mumbai, Chennai, New Delhi and Kolkata) in India. In order to the purify the scale items and to check the feasibility a pilot study was initially carried out.The pilot studywas conducted in Hyderabad with a sample size of 210. Moreover, thefinal study was done with a sample size of 1000, from the metropolitan cities (Hyderabad, Mumbai, Chennai, New Delhi and Kolkata) of India. The researcher personally interviewed the respondents in the selected metro cities and collected data.

3.2.6. SAMPLE SIZE JUSTIFICATION

Sample size should be representative of the target population and large in number to minimize the sampling error"(Grossnickle & Raskin, 2000). Since the study has used structural equation modeling for the data analysis, the size of the sample should be large enough to estimate the model fit indices (Hair, Black, Babin, & Anderson, 2010). There should be at least 200 subjects for performing structural equation modeling (Kelloway, 1998).

According to Hair, Black, Babin, & Anderson, (2010), the size of the sample should be determined based on the number of attributes of the study and suggested that there should be five subjects for each attribute". The study comprised of seven observed variables for online shopping and five observed variables for offline shopping.Based on the criteria given by Black et.al, the study required a minimum of 60 subjects. In both online and offline shopping categories, the final sample sizes were chosen to meet the above mentioned criteria, thereby justifying the sample size. The total valid sample size of the study was 860.

3.2.7. SURVEY INSTRUMENT

The questionnaire (data collection survey instrument) is comprised of 104 items which in turn were segregated into three sections: A, B, and C. The first section (A)comprised 14 items which covered demographic profile of the respondents (a. Gender, b. Age, c. Education, d. Occupation, e. Income) and internet usage related and online shopping related descriptive variables (average time spent in internet usage during a day, type of internet connection, past shistory of internet usage, various devices used for internet usage and payment method used for online shopping,).Section B covered 46 items related to online shopping price, product delivery, website attribute information, convenience, online shopping services, product category, and customer attitude towards

online shopping. The end section C included 34 items for five offline shopping variables which included price, product type, the convenience of shopping, customer attitude, and offline shopping services. All the itemswere measured on Likert five-point format scale. The range of the scale varied from 1 representing ‘strongly disagree’ to 5 representing‘strongly agree' for 80 items of both online and offline shopping. For the questionnaire, the scale was developed by the researcherbased on the literature review, discussions with customer focus groups, and considering the inputs from subject experts. The researcher tested the developed scale at the stage of the pilot study. Section D constituted open-ended questions. The questions are related to customers’ preference towards online and offline shopping in the purchase of specified goods and services, and reasons for their preferences.

3.3. **DATA ANALYSIS METHODS**

Statistical packages like MS Excel, and SPSS, version 21 were used for data analysis.“Analysis of a Moment Structure (Amos 21)” was used for Structural Equation Modelling. The methods of data analysis include descriptive statistics, exploratory and factor analysis, multiple regression analysis multigroup analysis, structural equation modeling (SEM), and comparison of means.

3.3.1 DESCRIPTIVE STATISTICS

Descriptive statistics were used to examine respondents’ profile regarding demographics, usage of the internet, methods of payment, preference of shopping channel, frequency of online shopping. Descriptive central tendency and frequency distributions were calculated.

3.3.2. EXPLORATORY FACTOR ANALYSIS (EFA)

Exploratory Factor Analysis (EFA) attempts to bring inter-correlated variables together under more general, underlying variables. The key objective for element investigation is to decrease the dimensionality of the unique space and also provide for an elucidation of the new space(Rietveld & Van Hout, 1993: pp.254). It offers the possibilities from claiming picking up an acceptable view of the information as well as the plausibility about utilizing those yield over resulting (Field, 2000). Principal component analysis, which is one of the most commonly used extraction methods has been used for this study, as it seeks to summarize most of the original information in a minimum number of factors for prediction purposes. Eigenvalue> 1 was used as a criteria for determining the number of extracted elements.The following criteria were used to determine the factor structure as suggested by Hair, Black, Babin, Anderson, & Tatham, (2008).

(a) The loading for each item on a factor should be more than or equal to ±0.40, and

(b) The items which are having cross loadings should be excluded if the difference between the loadings is less than 0.20." The sample observations (n=860) was used for EFA to develop online and offline shopping" theoretical model to explore underlying factors of online and offline shopping.

3.3.3. CONFIRMATORY FACTOR ANALYSIS (CFA)

Confirmatory Factor Analysis (CFA) is used to examine the relationships between the manifest variables and thelatent variables (Byrne, 2001). The sample (860) was used for Confirmatory Factor Analysis (CFA) to confirm the underlying factors of online and offline shopping and validated the measurement models (both first order and second order).The Confirmatory factor analysis was also used for validating the conceptual and the structural models which included the underlying constructs for online and offline shopping.The underlying constructs include website attribute

information, the convenience of shopping, product quality, the price of the product, shopping services, product delivery and customer attitudes towards online and offline shopping.

3.3.3.1. MULTI-GROUP ANALYSIS

The demographic data like gender, age, etc., was used to cross- validate the model across different groups as suggested by Byrne (2010). The online and offline shopping conceptual measurement model was cross-validated between male and female, using the multi-group analysis. Moderating variables (demographics, and usage of the internet) were also tested using the model. Chi-square test was used to test the results of Confirmatory factor analysis between groups.

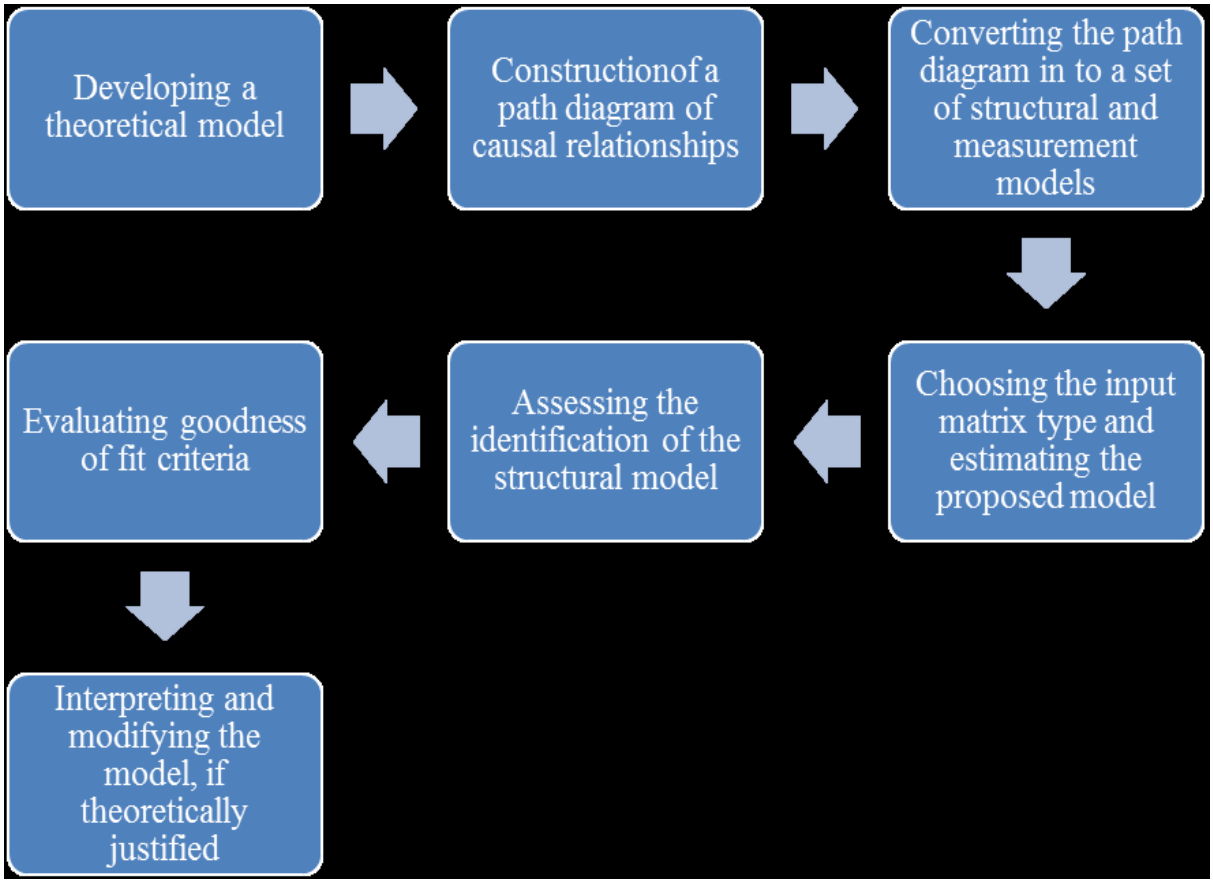
3.3.4. STRUCTURAL EQUATION MODELLING (SEM)

Structural Equation Modelling (SEM) has two stages of testing the theoretical models. First, the measurement model which identifies the relationship between independent and latent variables by Confirmatory Factor Analysis approach. Second, structural model examines the causal relationships among the specified constructs. The relationship specifies either direct or indirect or both between one latent construct to the other latent constructs (Byrne, 2001)". In this research, Structural Equation Modeling (SEM) was used to test the causal relationships among online and offline shopping customer expectations, quality of products, online services, price of the product, convenience of shopping, website information, product delivery and customer attitudes. The steps (Fig 3.1) suggested by Hair, Anderson, Tatham, & Black, (1998) to perform the SEM, were followed. They were also used for testing the hypotheses framed in the study. "Based on the extensive review of the literature, the theoretical model was developed, specified causal path diagram and the number of indicators of the measurement and Structural models were examined. Maximum Likelihood

estimation method was used, to estimate the covariance matrix, since the multivariate data were under the assumption of normal distribution.

The following goodness of fit criteria was used to evaluate the models. Specifying the intensity of a model's prediction is tough.Many fit indiceswere developed by the researchers from three major perspectives: absolute, incremental and parsimonious fit measures (Hair, Anderson, Tatham, & Black, 1998).

Figure: 3.1. The Seven steps of Structural Equation Modelling (Hair et al., 1998)



3.3.4.1 Absolute Fit Measures

These appropriatesteps were used to determine how well the model fits the sample data for measurement and structural models. The overall fit was determined by following standard criteria (Hair, Anderson, Tatham, & Black, 1998; Byrne, 2001; Chang, & Chen, 2008; Kelloway, 1998 pp.664-672):

- The ratio of $\chi 2$ to degrees of freedom ($\chi 2$ /df) 2 to 5

- Goodness-of-Fit Index (GFI) > .90
- Root mean square slip from claiming close estimation (RMSEA) ≤. 08.

3.3.4.2 Incremental Fit Measures

The incremental tests are useful in the comparison of the proposed and primary baseline models. The following standard criteria determined the the additional test fit (Byrne, 2010; Chang, & Chen, 2008; Hair, Black, Babin, Anderson, & Tatham, 2008 pp.664-672).

- The Adjusted Goodness-of-Fit Index (AGFI) should be > .9
- The Tucker-Lewis Index (TLI)Non-Normed Fit Index (NNFI) be > .9
- The Normed Fit Index (NFI) threshold should be > .9
- The Comparative Fit Index(CFI)threshold should be > .9

3.3.4.3 Parsimonious Fit Measures

These measures were deployed to analyze the model fit in case the data is overfitting withmany coefficients. In general, Parsimonious Normed Fit Index (PNFI) and Parsimonious Goodness-of-Fit Index (PGFI) are used for relevant criteria. The values for both PNFI and PGFI range from 0 to 1, and a higher value indicates that tight fit is achieved. In this study, based on the model fit index the results of measurement and structural modelswere interpreted. Finally, reliability and validity of the model were tested as presented below:

- Construct reliability should be greater than or equal to .7(Fornell & Larcker, 1981pp. 382-388) Churchill, 1992; Hair, Black, Babin, Anderson, & Tatham, 2008)

- Convergent validity provided with average variance extracted (AVE) ≥ .5, factor loadings ≥ .7 (Fornell & Lacker, 1981pp. 382-388; Hair, Black, Babin, Anderson, & Tatham, 2008)
- Nomological validity (Churchill, 1992) ensured with significant correlations between the constructs.
- Predictive validity (Churchill, 1992)ensured by regression analysis for each construct (e.g., all online and offline shopping dimensions should be significant with overall shopping channel).
- Discriminant validity (Fornell & Lacker, 1981pp. 382-388; Hair, Black, Babin, Anderson, & Tatham, 2008) ensured by checking AVE > squared inter-construct correlations.
- Construct validity (Churchill, 1992) guaranteed with convergent, discriminant and nomological validity.

3.3.5. MODERATION ANALYSIS

In order to check to the moderation effect of demographic, technical and functional variables (of online and offline shopping) as well as the preference towards both shopping channels and customers' intention to continue shopping (using the preferred channel), a multi-group causal analysis as suggested by Jöreskog and Sörbom (1993) was conducted. The analysis was done by using IBM, AMOS 21 version software.

3.3.6. MEDIATION ANALYSIS

Mediation analysis was performed using structural equation modelling (using AMOS, version 21software). In order to examine the power of the mediation effect bootstrap was performed on the sample of 860, after testing the significance of indirect effect of online and offline shopping data

The Multivariate statistical techniques such as multiple regression analysis, factor analysis, and structural equation modeling have the underlying assumption of linearity of relationships among the constructs (Hair, Black, Anderson, & Tatham, 2008).

The study examined the customer's preference of shopping of both online and store outlet shopping in the Indian context. The relationships of each shopping formats were tested with Pearson's correlation and found that the measures have significant positive correlations with each other. Thus, the study assumed that the relationships are linear (Field, 2005; Tabachnick & Fidell, 2001; Hair, Black, Anderson, & Tatham, 2008). The outliers of the data were examined in the Amos output and found that there were no multivariate outliers present (Kline, 2005).

3.4. SCALE DEVELOPMENT OF (ONLINE AND OFFLINE SHOPPING)

Development of scale is a based on the idea that multiple items or statements all together help in the measurement of a construct. The following steps were used for the development and validation of the scale:

a) Generation of the scale items

b) Pre-testing of the scale

c) Purification of the scale

3.4.1. Generation of Scale Items

Scholarly articles published in national and International journals were reviewed in order to identify the items pool on the subject related to online shopping. The study also used the information available on various online shopping portals and online shopping reports by agencies such as Internet and Mobile Association of India (IAMAI) and various retailing industry reports, for modifying the identified items pooled from the literature review. The next phase included discussions with subject experts on the items pooled for the study. Seven constructs were identified for the study that included

website information or content of the website, quality of the product, online services, pricing methods, timely product delivery and finally customer attitude towards online shopping. Finally a total of 52 items have been identified for seven factors in online shopping for 48 items for offline shopping at the end of this exercise.

3.4.2. Second Step: Pre-testing of the Scale

The pre-testing of the scale was done to make sure that the items elicit proper (appropriate) responses, confusing wording were modified or errors or redundancy in the scale is eliminated as the final study had to be conducted on a large sample size. For conducting pretesting, 150 online and offline shopping customers from Hyderabad were contacted. They were requested to read the items generated and give feedback on confusing items, repeated items, improper wording etc. Some of the items have been removed,after the pretesting.

3.4.3. Third Step: Factor Structure of Online Shopping

After pilot testing, the survey instrument had 46 items for online shopping and 34 items for offline shopping, where the respondents had to provide their opinion on a five-point Likert-type scale from strongly disagree to agree strongly. The purposive/ convenience sampling method have been adopted to select the respondents.

3.4.4. Sample Respondents for construct development.

The universe for this study constituted all the customers who are actively involved in online shopping as well as offline shopping from last six months have been considered in online shopping and offline shopping through electronic device like Smartphone, Computer Desktop, and Laptop for shopping and the proposed sample size was 1000 from five metro cities like Hyderabad, Chennai, Mumbai, Delhi and Kolkata of India. The questionnaire has been chosen for final analysis, some responses which consisted

response biaswere removed from the analysis for determining construct validity and exploratory factor analysis, a sample of 860 was finalized for final analyses.

3.4.5. Measurement Scale Purification

The reliability test was run to determine the internal consistency of the scale; SPSS 21.0 software package was used for the data analysis. The value of Cronbach's alpha came out to be 0.855 for online and 0.881 for offline shopping. These values indicate good internal consistency, as the minimum alpha value of .70 is acceptable for using the scale for further analysis (Hair, Black, Babin, Anderson, & Tatham, 2006).

3.5. CHAPTER CONCLUSION

The current chapter discussed the methodology used in the study. Various aspects related to research design, sample size and its justification, sampling technique, data collection methods and procedures, survey instrument, and methods of data analysis were explained in detail. The next chapter presents the analysis of the data.

4. INTRODUCTION

The primary objective of this chapter is to present the data analysis followed by the results. Descriptive statistics, Exploratory and Confirmatory Factor Analysis (EFA& CFA), Structural Equation Modelling (SEM), Analysis of Variance (ANOVA) andchi-square difference test analysis were done in order to develop and validate a measurement scale for online and offline shopping.

Reliability and validity of the scales were tested and the results were presented. Demographic characteristics of the respondents, online and offline shopping channel attributes and respondents' preferences towards these channels, website information and preferences towards several online payments methods were also analysed.

4.1. RESPONDENTS' DEMOGRAPHIC CHARACTERISTICS

The descriptive statistics of the sample are shown in Table 1. The final valid sample for the study is 860, across five different metro cities like Hyderabad, Mumbai, Chennai, Delhi, and Kolkata in the country.

Table: 4.1.1. Demographic Characteristics of the Respondents

Respondents were from metro CitiesMumbai, Hyderabad, Chennai, Kolkata and Delhi.		
Construct	**Category**	**Frequency and percentage**
Gender	Male	634 (73.7%)
	Female	226 (26.3%)
Age	18-25 years	418 (48.6%)
	26-30 years	371 (43.1%)
	31-40 years	64 (7.4%)
	41years and above	7 (.8 %)
Education:	SSC	3 (.3%)
	Intermediate	9 (1.0%)
	Graduation	263 (30.6%)
	Master's Degree	525 (61.0%)

	MPhil / Ph.D.	60	(7.0%)
Marital Status	Married	269	(31.3%)
	Un Married	591	(68.7%)
Occupation	Govt. Employee	19	(2.2%)
	Private Employee	627	(72.9%)
	Own Business	155	(18.0%)
	Self Employed	59	(6.9%)
Monthly Income(Rs.)	5000-15000	51	(5.9%)
	15001, -25000	417	(48.5%)
	25001, -35000	282	(32.8%)
	35001,45000	56	(6.5%)
	45001 and above	54	(6.3%)
Internet usage history	Less than one Year	77	(9 .0%)
	1-5 Year	464	(54.0%)
	5-10 year	313	(36.4%)
	Above ten years	6	(.7 %)
Frequently used device to access the internet	Laptop	319	(37.1%)
	Desktop PC	449	(52.2%)
	Mobile/Smartphones	92	(10.7%)
Average time spent on the internet during a day	Up to 30 Minutes	13	(1.5%)
	> 30 Min<= 1 Hour	271	(31.5%)
	1-2 Hours	122	(14.2%)
	2-4 Hours	170	(19.8%)
	More than 4 Hours	284	(33.0%)
Type of internet connection	Wi-Fi	153	(17.8%)
	LAN	506	(58.8%)
	Mobile Data	201	(23.4%)

As depicted in Table: 4.1.1, the sample consists of 634 males (73.7%) and 226 females (26.3%). The majority of the respondents were in the age group of 18 to 25years (48.6%), followed by the age group 26-30 years(43.1%) and the age group 31-40 year (7.4%). Most of the interviewees were post graduates (61.0%) followed by Graduates (30.6%), and highest level of qualification of the respondents was MPhil / Ph.D. (7.0%). The lowest level of qualification of the respondents was SSC (0.3%). As far as the occupation of the respondents was concerned, Private employees constituted a majority of respondents (72.9%) followed by respondents who owned their own business (18.0%) and self-employed constituted 6.9% of the respondents. Government employees constituted only 2.2% of the sample respondents.

A majority of respondents were unmarried (68.7%), the remaining 31.3% were married. As far as monthly income (in rupees) is considered 417 respondents (48.5%)reported monthly income between Rs.15001, and Rs.25000. 282 respondents (32.8%) reported monthly income between Rs. 25001, and Rs.35000, 56 (6.5%), respondents reported monthly income between 35000-45000 while 51 (5.9%) respondents had monthly income below Rs.15,000. Most of the respondents were using the internet for the past 1-5 years (54.0%) , followed by users in the 5-10 years category (36.4%) and users with less than one year were internet usage(9 .0%). The repondents who constituted internet usage above ten years accounted for only 0.7%.

Most of the respondents were using Desktop computersfor online shopping(52.2%) followed by Laptops (37.1%) and only 10.7% respondents were using Mobile/Smartphone for online shopping. . Most of the respondents (33%) were using internet formore than 4 hours a day followed by 31.5% using the internet between 30 minutes and 1 hour.Others included 19.8% of repondents using internet above 4 hours a day and 13 respondents (1.5%) reported using internet for less than 30 minutes on a

typical day.The analysis also revealed that most of the respondents (58.5%) were using LAN based internet connection followed by 23.4 % using mobile data and 17.8% repondents reported using Wi-Fi connection to use internet..

Table 4.1.2. **Frequency of Online Purchases**

		Online purchase frequency					
S. No	Items /Products	At Least once in a week	At Least once in 15 days	At Least once in a Month	At Least once in 3 Month	At Least once in year	Did not purchase
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	23 (2.7%)	17 (2.0%)	64 (7.4%)	435 (50.6%)	321 (37.3%)	0 (0%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	10 (1.2 %)	31 (3.6 %)	58 (6.7 %)	350 (40.7%)	304 (35.35%)	107 (12.4%)
3	Personal Care & Beauty items	33 (3.8%)	61 (7.09%)	151 (17.5%)	316 (36.7%)	220 (25.6%)	79 (9.2)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs. etc.)	0 (0%)	0 (0%)	48 (5.6%)	127 (14.8%)	362 (42.09%)	323 (37.5%)
5	Food & Grocery Items	51 (5.9%)	33 (3.8%)	211 (24.5%)	285 (33.1%)	150 (17.4%)	130 (15.1%)
6	Books & Stationery items	86 (10%)	56 (6.5%)	155 (18%)	266 (30.9%)	188 (21.8%)	109 (12.6%)
7	Mobile/DTH Recharges	393 (45. %)	94 (10.9%)	219 (25.5%)	61 (7.1%)	93 (10.8%)	0 (0%)

8	Train ticket booking	27 (3.1%)	16 (1.9%)	182 (21.2%)	447 (52.0%)	188 (21.9%)	0 (0%)
9	Bus/Cab booking	74 (8.6%)	37 (4.3%)	135 (15.7%)	373 (43.4%)	241 (28.0%)	0 (0%)
10	Movie ticket booking	255 (29. %)	59 (6.9%)	238 (27.7%)	195 (22.7%)	113 (13.1%)	0 (0%)

The above Table: 4.1.2. Reflects the periodicity of online purchases of the respondents. The categories of goods and services purchased online include the following:

(1) Electronic Goods (Mobile phones, Laptops, Computers, Accessories)

(2) Apparels &, Accessories (Ready Made Clothes, Footwear, etc.)

(3) Personal Care & Beauty items

(4) Home Appliances & Furnishing (A/Cs. Refrigerators, TVs. etc.)

(5) Food & Grocery Items

(6) Books & Stationery items

(7) Mobile/DTH Recharges

(8) Train ticket booking

(9) Bus/Cab booking and

(10) Movie ticket booking.

It can be seen from Table 4.1.2. that in the category of electronic products (Mobile phones, Laptops, Computers, Accessories) , majority of the respondents (50.6%) repondents reported that they were buying these items arleast once in 3 months, followed by 37.3% respondents reporting that they were buying these items online atleast once in an year. 7.4% of the respondents were buying these items atleast once in a month and 2.7% reported that they were making online purchases of these items atleat once in a week, while 2% respondents reported that they were buying these items online atleast once in a fortnight.

The next category of items include Apparels & Accessories (Ready Made Clothes, Footwear, etc). Out of 860 respondents 10 respondents (1.16 %) reported purchasing garmentsand other personal accessories onlineatleast once in a week. 31 respondents (3.6 %) reported making online purchasesof these items atleast once in 15 days, while 58 respondents (6.7 %) purchasedthem atleast once in a month.A majority of the respondents (40.7%) purchasedthese items online atleast once in 3 months while 304 respondents (35.35%) bought the apparels and personal accessories online atleast once in a year. 107 respondents (12.44%) reported that they did not buy these items online.

The third category of products include Personal Care & Beauty items.Among 860 respondents 33 (3.8%) respondents reported purchasing beauty and personal care products online at least once in a week, while 61 (7%) respondents reported purchasing beauty and personal care products at least once in 15 days. 151 (17.5%) respondents purchased these products once in a month. A majority of respondents (316, accounting for 36.7%) reported buying beauty and personal care products at least once in 3 months followed by 220 (25.58%) respondents who reported purchasing beauty and personal care products at least once in a year at online shopping portals.79 respondents (9.2%) reported that they did not purchase these items online.

The fourth category of items include Home Appliances & Furnishings (A/Cs Refrigerators, TVs. Accessory products). Among 860 respondents none of the respondents reported purchasing home appliance accessories and furnishing related products at least once in a week, or at least once in 15 days, while 48 (5.58%) respondents reported that they were purchasing these products at least once in a month, 127 (14.7%) respondents purchased home appliancesat least once in 3 months, and 362 (42%) respondents reported buying home appliances/ furnishing accessories products

at least once in a year on online shopping portals. A substantial percentage (323 respondents, 37.6%) reported that they did not buy these products online.

The next product category includes Food & Grocery Items. 51(5.9%) respondents reported purchasing food and grocery items at least once in a week through online shopping.33 (3.8%) respondents were buying food items at least once in 15 days on online shopping for their daily needs. 211 (24.5%) respondents were purchasing food items at least once in a month for their monthly grocery on online shopping, while 285 (33.14%) respondent were purchasing food and grocery items at least once in 3 months.150 (17.4%) respondents were purchasing these items at least once in a year. 15% (130) of the respondents reported that they did not buy these items online.

The sixth category of items include Books & Stationery items.Among 860 respondents 86 (10%) of respondents were purchasing books and stationery items online at least once in a week, while 56 (6.5%) respondents were buying the books and stationery items at least once in 15 days. 155 (18%) respondents were purchasing books and stationery items at least once in a month, while 266 (30.9%) respondents were purchasing books and stationery items at least once in 3 months,followed by188 (21.86%) respondents are purchasing stationery items at least once in a year through online shopping.109 respondents (12.67%) reported that they did not buy these items online.

The seventh category of goods and service in the above table are related to telecommunications (Mobile/DTH Recharges) services.Of the total 860 respondents 393 (45.7%) respondents reported purchasing mobile and DTH recharges at least once in a week, 94 (10.9%) respondents werre purchasing recharges services online at least once in 15 days, while 219 (25.5%) respondents were buying recharge services at least once in a month. 61 (7.1%) respondents are purchasing recharge services at least once

in 3 months, and finally 93 (10.8%) respondents reported purchase of recharge services through online shopping atleast once in an year.

As far as Train ticket booking services are concerned, out of 860 respondents 27 (3.1%) of respondents were using online services at least once in a week to purchase train tickets, 16 (1.9%) respondents were using these services at least once in 15 days to buy train tickets, while 182 (21.2%) respondents reported using online services at least once in a month. 447 (52.0%) respondents were using online train ticket booking services at least once in 3 months and finally 188 (21.9%) respondents reported using online services at least once in a year to buy train tickets.

The ninth category of goods and services shown in the table include bus/cab booking services. 74 (8.6%) respondents were using online services at least once in a week to book bus/cab services on online service portals, 37 (4.3%) respondents were using online services at least once in 15 days to book bus/cab services, while 135 (15.7%) respondents were using online services at least once in a month to book bus/ taxi services. 373 (43.4%) respondents reported using online service at least once in 3 months, and finally 241 (28.0%) of respondents reported using these services at least once in a year.

The last category of goods and service in table include online movie ticket booking services. Of the 860 respondents, 255 (29.7%) reported using online ticket booking services at least once in a week. 59 (6.9%) respondents were using them at least once in 15 days, while 238 (27.7%) respondents were using them at least once in a month. 195 (22.7%) respondents were using these services at least once in 3 months and finally, 113 (13.1%) respondents reported using online movie ticket booking services at least once in a year.

Table: 4.1.3. Customer Preferences for Online and Offline channels in the Purchase of Goods and Services

S. No	Items /Products	Online Shopping		Offline shopping	
1	Electronic Goods (Mobiles Phones, laptops, Computers, etc.	121 (14.1 %)		739 (85.9 %)	
2	Apparels & Accessories (Readymade clothes, footwear,etc.	197	(22.9%)	663	(77.1%)
3	Home Appliances & Furnishing (A/Cs, Refrigerators, TVs etc.	142	(16.5 %)	718	(83.5 %)
4	Food & Grocery Items	97	(11.3 %)	763	(88.7 %)
5	Personal and beauty items	30	(17.1%)	145	(82.9%)
6	Books & Stationery items	117	(13.6 %)	743	(86.4 %)
7	Mobile/DTH Recharges	299	(34.8 %)	561	(65.2 %)
8	Train tickets booking	516	(60.0 %)	344	(40.0%)
9	Bus/ Cab tickets booking	515	(59.9 %)	345	(40.1 %)
10	Movie tickets booking	583	(67.8 %)	277	(32.2 %)

The above Table: 4.1.3. Provides the preferences for Online and Offline shopping channels in the purchase of various categories of goods and services. In case of electronic goods 121 (14.1%) respondents preferred to purchase electronic goods through online channels. The reasons were 24/7 shopping availability, seasonal discount offers, cheap price, flash sale offers, easy accessibility, availability of international brands, time-saving, reliability of products, warranty availability on the products, access to more information about product and customer reviews online, availability of secure payment options and free delivery of goods. 739 (85.9 %)

respondents preferred offline shopping for purchase of electronic goods. The reasons cite were touch and feel, ambience, quality of product, guarantee and warranty on product, credit availability, availability of multiple goods at one place, trustworthy product, relationship maintained by shop owner, shopping with family members, convenience and comfort during offline purchase.

In case of Apparels & Accessories (Readymade clothes, footwear, etc.), 197 (22.9%) respondents preferred online shopping. The reasons cited were seasonal discount offers, cheap price, flash sale offers, easy accessibility, ease of shopping, hassle free shopping, large information about products, customers review, secure payments options available like cash on delivery, Net banking, debit/ credit payments, free delivery, time saving, no need to travel to store, petrol saving, needn't worry about vehicle parking facility and 24/7 shopping availability anywhere from the globe. 663 (77.1%) respondents preferred to shop offline. The reasons given by the customers were touch and feel, ambience, quality of product, guarantee and warranty on product, credit availability, wide availability of multiple goods at one place, trustworthy product, relationship maintained by shop owner with the customer, shopping with family members, convenience and comfort to purchase the goods and services at offline shopping.

142 (16.5 %) respondents preferred online shopping for Home Appliances & Furnishing (A/Cs, Refrigerators, TVs, etc.). The reasons cited were 24/7 shopping availability, seasonal discount offers, cheap price, flash sale offers, large information about products, customers' reviews, free delivery and cash on delivery. 718 (83.5 %) respondents preferred to shop offline and reasons were touch and feel, ambience, quality of product, guarantee and warranty on product, credit availability, wide availability of multiple products at one place, trustworthy product, relationship maintained by shop owner with the customer, shopping with family members,

convenience and comfort to purchase the goods and services at offline shopping and real time spent at shopping malls. Very few, 97 (11.3 %) respondents, preferred online channels for purchase of food and grocery items. The reasons are lack of time, ease of shopping, shop from home/ office, free delivery, availability of fresh goods, variety of goods available, cash on delivery, discount sales on refined oil products, and tension free shopping. 763 (88.7%) respondents preferred offline shopping. The reasons cited were fresh product available at the market, credit availability, availability of multiple goods at one place, quality of products and spent some time with family in the market. 117 (13.6 %) respondents prefer to purchase books and stationery items online. The reasons cited were new editions of books are available online, price discounts, free delivery, cash on delivery (CoD), online information reviews about products, anytime shopping, ease of shopping, time-saving and convenience and comfort shopping on online. 743 (86.4%) respondents preferred offline shopping to purchase books and stationery items. Reasons given by customers were broad availability of products at one place, price discounts, touch and feel, verification of contents of book as per required syllabus and spot delivery of the product. 299 (34.8 %) respondents preferred to Mobile and DTH recharge online. The reasons were no middle man charges, spot balance available, any time recharge, full talk time offers and free calling at night times on selected network. 561 (65.2 %) respondents preferred offline channels. Reasons cited were convenience and comfort, recharge available in nearby shops, easy way of recharge, credit availability and relationship maintained by store owner with the customers. 516 (60.0%) respondents prefer online train ticket booking. The reasons given by the customers were advance booking options available online, any time booking, information about train journey, easy cancellation of ticket, easy refund option availability, time duration of trip, PNR, Status information available in online services,

no need to stand in line and convenience and comfort in purchase of ticket. 344 (40.0%) respondents preferred to book train ticket offline. The reasons were spot ticket availability option, no chance to get fake ticket and easy purchase option.

515 (59.9%) respondents preferred to use online services to book bus ticket /cab. The reasons given by the customers include easy booking options, advance ticket booking, and availability of information about bus/ cab in online services. 345 (40.1%) respondents preferred to purchase or pay at the time of journey. In case of booking movie tickets, 583 (67.8%) respondents preferred to use online services. The reasons cited were advance ticket booking options available in online services, easy way to book the ticket in advance, any time booking, no middle man charges, no need to stand in a queue etc. 277 (32.2%) respondents preferred to book movie ticket offline. The reasons include on the spot decision and feel good factor while standing with friends in queue.

4.2.1. METRO CITY WISE CHANNEL PREFERENCES OF CUSTOMERS

Analysis was also done on city wise preferences of customers in buying products/ services through offline and online channels. This provides a microscopic view for each location where the samples are collected.

Table: 4.1.4. Customer Channel Preferences for different categories of Products in Hyderabad City

(Total sample size =184)

S. No	Category of Product	Online Shopping		Offline Shopping	
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	27	(14.7%)	157	(85.3%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	76	(41.3%)	108	(58.7%)
3	Personal Care & Beauty items	35	(19.0%)	149	(81.0%)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs. etc.)	36	(19.6%)	148	(80.4%)
5	Food & Grocery Items	44	(23.9%)	140	(76.1%)
6	Books & Stationery items	52	(28.3%)	132	(71.7%)
7	Mobile/DTH Recharges	168	(91.3 %)	16	(8.7%)
8	Train ticket / Cab/ Bus booking	16	(8.7%)	168	(91.3%)
9	Movie Booking	167	(90.8%)	17	(9.2 %)

Majority of customers from Hyderabad prefer online channels for Movie Booking, Mobile / DTH recharges and Home appliances, whereas the preference for offline channels is very high in case of train ticket / cab / bus booking, electronic goods, personal care & beauty products and food and grocery items. 27 (14.7%) customers prefer online shopping and 157 (85.3%) customers prefer offline shopping for Electronic Goods (Mobile phones, Laptops, Computers, Accessories). In case of

Apparels & Accessories (Ready Made Clothes, Footwear, etc.) 76 (41.3%) customers are purchasing online and 108 (58.7%) customers are doing offline shopping. For Personal Care & Beauty items, 35 (19.0%) customers are use shopping and 149 (81.0%) customers use offline shopping. The customers' choice for Home Appliances & Furnishing (A/Cs Refrigerators, TVs, etc.) is offline with 148 (80.4%) customers doing offline shopping transactions. The same is the case for Food & Grocery items with 140 (76.1%) customers buying through offline shopping. 145 (82.9%) customers use offline shopping transactions for Books and stationery items. The online channels are preferred for Mobile/DTH Recharges with 168 (91.3 %) customers. For Train ticket / Cab/ Bus booking 16 (8.7%) of customers use online services and 168 (91.3%) customers used offline services. 167 (90.8%) customers are using online services to book Movie tickets.

Table: 4.1.5. Customer Channel Preferences for different categories of Products in Mumbai City

(Total sample size =175)

S. No	Category of Product	Online Shopping		Offline Shopping	
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	31	(17.7%)	144	(82.3%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	27	(15.4%)	148	(84.6%)
3	Personal Care & Beauty items	29	(16.6%)	146	(83.4%)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs. etc.)	13	(7.4%)	162	(92.6%)
5	Food & Grocery Items	25	(14.3%)	150	(85.7%)
6	Books & Stationery items	30	(17.1%)	145	(82.9%)
7	Mobile/DTH Recharges	97	(55.4%)	78	(44.6%)
8	Train ticket / Cab/ Bus booking	78	(44.6%)	97	(55.4%)
9	Movie Booking	97	(55.4%)	78	(44.6%)

31 (17.7%) customers in Mumbai are doing online shopping and 144 (82.3%) customers are doing offline shopping for Electronic Goods (Mobile phones, Laptops, Computers, Accessories). The preferences in Apparels & Accessories (Ready Made Clothes, Footwear, etc.) segment is 27 (15.4%) for online shopping, and 148 (84.6%) for offline shopping. 29 (16.6%) customers are doing online shopping and 146 (83.4%) customers are doing offline shopping for personal and beauty products. The preference for offline shopping is high in Home Appliances & Furnishing (A/Cs Refrigerators, TVs, etc.) Segment with only 13 (7.4%) customer doing online shopping and 162 (92.6%) customers doing offline shopping. Similar is the case with Food& Grocery Items with only 25 (14.3%) customers purchasing through online and 150 (85.7%) customers buying offline. In case of Books & Stationery items, 30s (17.1%) customers are doing online shopping and 145 (82.9%) customers are doing offline shopping transactions. A little more than half, 97 (55.4%) customers prefer online channel for Mobile/DTH Recharges and booking movie tickets.

Table: 4.1.6. Customer Channel Preferences for different categories of Products in Chennai City

(Total sample size =175)

S. No	Category of Product	Online Shopping		Offline Shopping	
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	20	(11.4%)	155	(88.6%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	35	(20.0%)	140	(80.0%)
3	Personal Care & Beauty items	30	(17.1%)	145	(82.9%)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs. etc.)	20	(11.4%)	155	(88.6%)

5	Food & Grocery Items	18	(10.3%)	157	(89.7%)
6	Books & Stationery items	51	(29.1%)	124	(70.9%)
7	Mobile/DTH Recharges	85	(48.6%)	90	(51.4%)
8	Train ticket / Cab/ Bus booking	90	(51.4%)	85	(48.6%)
9	Movie Booking	108	(61.7%)	67	(38.3%)

The analysis for respondents from Chennai would show higher levels of offline preference for Food & Grocery, Home Appliances, electronic goods, Personal Care products and apparels. Online channels are preferred for movie tickets booking and booking of cab, bus and train tickets. 20 (11.4%) customers used online shopping and 155 (88.6%) customers used offline shopping for Electronic Goods (Mobile phones, Laptops, Computers, Accessories) in Chennai. In case of Apparels & Accessories (Ready Made Clothes, Footwear, etc.) 35 (20.0%) customers prefer online shopping and 140 (80.0%) customers prefer offline shopping. 30 (17.1%) customers use online shopping and 145 (82.9%) customers use offline shopping transactions for personal and beauty products. 20 (11.4%) customers preferred online shopping and 155 (88.6%) customers preferred offline shopping transaction for home appliances. 18 (10.3%) customers used online shopping and 157 (89.7%) customers bought food and grocery through offline shopping. In case of Books & Stationery items, 51 (29.1%) customers preferred online shopping and 124 (70.9%) customers preferred offline shopping transactions. 85 (48.6%) customers recharged online and 90 (51.4%) customers recharged offline for Mobile / DTH. A similar percentage is noticed in case of Train ticket / Cab/ Bus booking with 90 (51.4%) customers preferring online services and 85 (48.6%) customers offline services. A slightly higher percentage of customers in

Chennai used online services for movie tickets. 108 (61.7%) customers used online services and 67 (38.3%) customers used offline services to book movies tickets.

Table: 4.1.7. Customer Channel Preferences for different categories of Products in New Delhi City

(Total sample size =156)

S. No	Category of Product	Online Shopping		Offline Shopping	
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	19	(12.2 %)	137	(87.8%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	34	(21.8%)	122	(78.2%)
3	Personal Care & Beauty items	25	(16.0%)	131	(84.0%)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs. etc.)	11	(7.1%)	145	(92.9%)
5	Food & Grocery Items	16	(10.3%)	140	(89.7%)
6	Books & Stationery items	42	(26.9%)	114	(73.1%)
7	Mobile/DTH Recharges	87	(55.8%)	69	(44.2%)
8	Train ticket / Cab/ Bus booking	87	(55.8%)	69	(44.2%)
9	Movie Booking	105	(67.3%)	51	(32.7%)

19 (12.2%) customers preferred online shopping and 137 (87.8%) customers preferred offline shopping for Electronic Goods (Mobile phones, Laptops, Computers, Accessories). 34 (21.8%) customers purchased online and 122 (78.2%) customers purchased offline for products like Apparels & Accessories (ReadyMade Clothes, Footwear, etc.). In case of Personal Care & Beauty items 25 (16.0%) customers used online shopping and 131 (84.0%) customers used offline shopping. The customer

preference for Home Appliances & Furnishing (A/Cs Refrigerators, TVs, etc.) is for offline channels. 11 (7.1%) customers preferred online shopping and 145 (92.9%) customers preferred offline shopping. 16 (10.3%) customers in New Delhi used online shopping and 140 (89.7%) customers used offline shopping mode for purchase of food and grocery products. 42 (26.9%) customers transacted online and 114 (73.1%) customers transacted offline for Books and stationery items. 87 (55.8%) customers undertook online services to do recharges and 69 (44.2%) customers used offline services for their recharge. The preference for online transactions for Train ticket / Cab/ Bus booking and movie ticket booking is 87 (55.8%) and 105 (67.3%) customers respectively in Delhi. The offline transactions for these two product categories are 69 (44.2%) and 51 (32.7%).

Table: 4.1.8. Customer Channel Preferences for different categories of Products in Kolkata City

(Total sample size =170)

S. No	Category of Product	Online Shopping		Offline Shopping	
1	Electronic Goods (Mobile phones, Laptops, Computers, Accessories)	24	(14.1%)	146	(85.9%)
2	Apparels & Accessories (Ready Made Clothes, Footwear,etc.)	26	(15.3%)	144	(84.7%)
3	Personal Care & Beauty items	23	(13.5%)	147	(86.5%)
4	Home Appliances & Furnishing (A/Cs Refrigerators, TVs, etc.)	17	(10.0%)	153	(90.0%)
5	Food & Grocery Items	14	(8.2%)	156	(91.8%)
6	Books & Stationery items	44	(25.9%)	126	(74.1%)
7	Mobile/DTH Recharges	79	(46.5%)	91	(53.5%)

8	Train ticket / Cab/ Bus booking	78	(45.9%)	92	(54.1%)
9	Movie Booking	105	(61.8%)	65	(38.2%)

In Kolkata city the preference for online shopping is high for movie ticket booking (61.8%), mobile / DTH recharges (46.5%) and train ticket / cab / bus booking (45.9%). Overall the preferences in Kolkata is more for offline purchases with more than 90 percent of the respondents in Food & grocery and home appliances. Over 80 percent of the respondents in personal care, apparel and electronic goods also opted for offline transactions. 74.1% of the customers of books and stationery items opted for offline channels.

4.3.1 Exploratory Factor Analysis for Online Shopping

The first step in carrying out Exploratory Factor Analysis (EFA) is to verify the KMO value to check whether factory analysis will be appropriate or not using KMO and Bartlett's test of Sphericity. KMO value varies between 0 and 1. The value .000 indicates that the sum of partial correlations is significant relatively to the sum of relationships, indicating factor analysis was likely to be inappropriate. Kaiser (1974) recommends a value above .5 as acceptable. The results show KMO value as .855, which can be considered as a good value and therefore factor analysis is appropriate. Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. Thus, there are as many factors as the items, and for doing factor analysis, this test should be significant (Hair, Anderson, Tatham, & Black, 1998). For this data, Bartlett's test is highly significant ($p = .000$), and therefore factor analysis is appropriate. The results for KMO and Bartlett's test are presented in Table 4.3.1.

Table: 4.3.1.KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
Bartlett's Test of Sphericity	Approx. Chi-Square	12295.945
	Df	435
	Sig.	.000

Exploratory Factor Analysis (EFA) was carried out using Principal Component Analysis as Extraction Method and Varimax with Kaiser Normalization as Rotation Method. The output in SPSS provided total variance for extracted factors which is represented in Table 4.3.2. The Total variance explained is 62.887 with seven factors having Initial Eigen values of more than one.

Table: 4.3.2.Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.483	21.609	21.609	6.483	21.609	21.609	3.139	10.465	10.465
2	2.825	9.415	31.024	2.825	9.415	31.024	3.055	10.183	20.648
3	2.570	8.567	39.591	2.570	8.567	39.591	2.983	9.945	30.593
4	2.268	7.560	47.151	2.268	7.560	47.151	2.814	9.378	39.972
5	1.885	6.283	53.434	1.885	6.283	53.434	2.791	9.302	49.274
6	1.631	5.436	58.870	1.631	5.436	58.870	2.297	7.655	56.929
7	1.205	4.017	62.887	1.205	4.017	62.887	1.788	5.959	62.887

Extraction Method: Principal Component Analysis.

Table: 4.3.3. Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
PA1	.747						
PA2	.804						
PA3	.841						
PA4	.736						
PA5	.734						
CBB1		.893					
CBB2		.885					
CBB3		.899					
CBB4		.500					
CA 1			.690				
CA 2			.686				
CA 3			.668				
CA 4			.792				
CA5			.636				
WI1				.851			
WI2				.846			
WI3				.810			
WI4				.750			
PD1					.749		
PD2					.809		
PD3					.867		
PD4					.752		
P1						.763	
P2						.756	
P3						.780	
P4						.694	
SO1							.689
SO2							.731
SO3							.662
SO4							.532

"Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations".

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior in online shopping, and finally, SO= Services Offered by online retailers.

Using the Rotated Components Matrix derived during EFA seven factors are identified and are named as Product website information (WI), Price (P), Product Delivery (PD),

customer attitude (CA), Customer buying behavior towards online shopping (CBB) and Services Offered by online retailers (SO).

EFA is performed on group items into identifiable factors without significant cross loading to establish the construct validity of the scale measurement. The goal of factor analysis is to reduce the dimensionality of the original space and have a minimum value of 0.7 threshold value for interpretation of the new space, spanned by a reduced number of new dimensions which are supported to underlie the old ones (Rietveld and Van Hout, 1993; pp. 254). Hence, EFA offers possibility of gaining a clear view of the data and using the output in subsequent analysis (Field, 2000). Principal component analysis, the extraction method in this analysis, seeks to summarize most of the original information in a minimum number of factors for prediction purposes. Some other criteria such as, Eigenvalue > 1 as criteria for determining the number of extracted factors, VARIMAX rotation, the anti-image correlation for diagonal entries >.5 were set to remove the factors. The following criteria were used to determine the factor structure as suggested by Hair et al. (2008): (a) the loading for each item on a factor should be more than or equal to ±0.40; and (b) the items which are having cross loadings should be excliuded if the difference between the loadings is less than 0.20. Sixteen items (i.e., WI3, WI7, WI2, WI1, PA6, SO5, SO6, PD5 CA9, CA6, CA8, PD5, CBB6, CBB2 and P6, P2, has not fallen in the above-mentioned criteria. Accordingly, those items are dropped from further analysis.

EFA has resulted in seven factors with a total of 30 items which were confirmed through Confirmatory Factor Analysis and tested for reliability and validity as constructs for further analysis to be carried out.

4.3.2 Confirmatory Factor Analysis

Figure: 4.1.Confirmatory Factor Analyses of Online Shopping

First order Confirmatory Factor Analyses

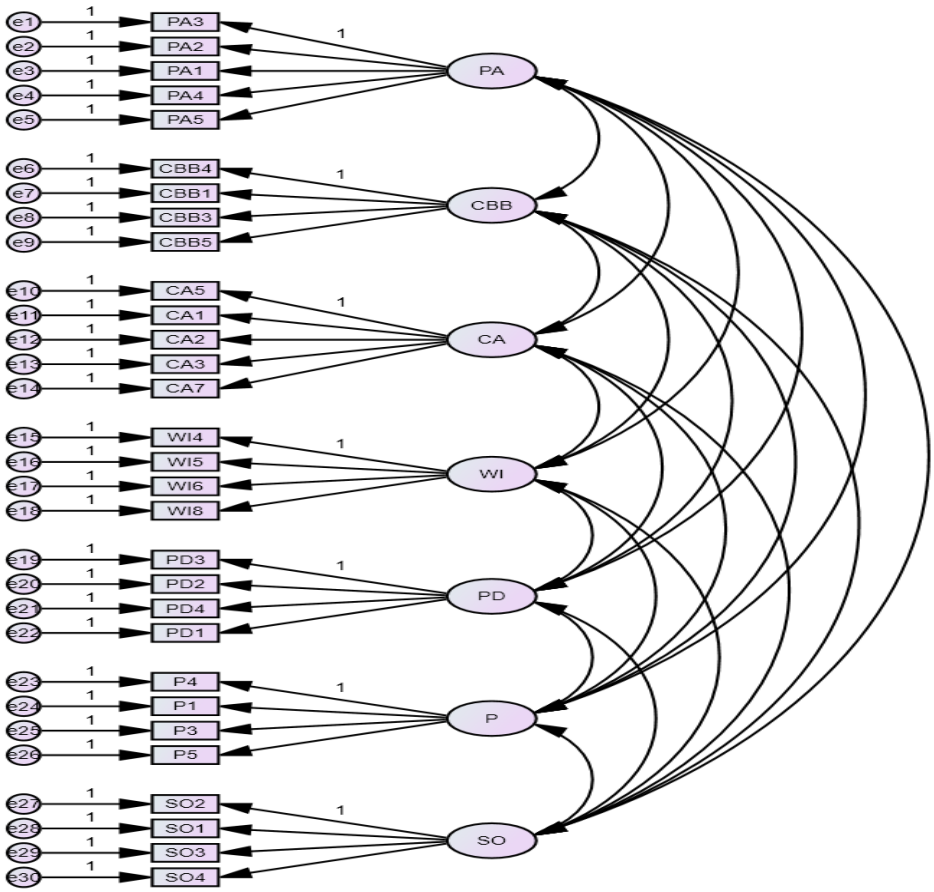


Table: 4.3.4. Construct Loadings

Construct	ITEMs	Loading	Construct	Items	Loading
Website Information	WI4	0.734	**Customer Attitude**	CA 1	0.839
	WI5	0.880		CA 2	0.583
	WI6	0.742		CA 3	0.656
	WI8	0.864		CA 5	0.702
				CA 7	0.720
Product Attributes	PA1	0.669	**Price Consideration**	P1	0.745
	PA2	0.796		P3	0.756
	PA3	0.810		P4	0.749
	PA4	0.652		P5	0.593
	PA5	0.672			
	SO1	0.645	**Product Delivery**	PD1	0.661

Services Offered	SO2	0.960	PD2	0.777
	SO3	0.944	PD3	0.890
	SO4	0.414	PD4	0.685
Customer Buying Behavior	CBB1	0.650		
	CBB3	0.693		
	CBB4	0.812		
	CBB5	0.726		

Model fit indices: $\chi 2$ =919.082; df = 384; p-value = 0.000; GFI = 0.934; CFI = 0.955; NFI = 0.926; RFI = 0.916; IFI = 0.956; TLI = 0.950; RMSEA = 0.040.

4.3.2.1. Content Validity

The content validity of the constructs was examined through subject experts, practitioners, and online shoppers. The item statements which are part of the constructs derived out of the EFA were checked for the face or content validity (Kaplan & Sacuzzo, 1993; Churchill, 1992; Saraph, Benson, & Schroeder, 1989). The content validity is an important measure to logically examine the relevance of the item statement to the underlying construct defined for the research purpose.

4.3.2.2 Convergent validity

The convergent validity examined the estimates of the standardized loading which were more than the 0.7 threshold value (Hair, Black, Babin, Anderson, & Tatham, 2006) for all the scale items and Average Variance Extracted (AVE ≥ .5) was ranging from all the items (Fornell & Lacker, 1981; Hair, Black, Anderson, & Tatham, 2008).Therefore, the scale of online shopping has convergent validity.

4.3.2.3 Discriminant Validity

Discriminant validity examined that the Average Variance Extracted (AVE) values. These values are greater than the squared correlations for each pair of the constructs. It indicates the scale of online shopping has discriminant validity (Fornell and Larcker, 1981).

4.3.2.4. Nomological Validity

The correlations between each pair of constructs were significant ($p < .01$) and it indicated that the scale of online shopping has Nomological validity (Churchill, 1992).

4.3.2.5. Construct Validity

Online Shopping scale has construct reliability, convergent validity, discriminant validity and Nomological validity. Hence, the scale of online shopping has construct validity too (Churchill, 1992; Gerbing and Anderson, 1988; Hair et al., 2006).

Table: 4.3.5.Composite reliability (CR), Average Variance Extracted (AVE)

Variable / Construct	CR	AVE
Customer Attitude	0.83	0.497
Website information	0.88	0.650
Product Attribute	0.84	0.522
Price	0.80	0.509
Services Offered	0.85	0.600
Product Delivery	0.84	0.575
Customer Buying Behavior	0.81	0.522

Table: 4.3.6. Maximum Shared Variance (MSV), Average Shared Variance (ASV) & Correlation Matrix

Construct	MSV	ASV	1	2	3	4	5	6	7
Customer Attitude[1]	0.013	0.05	**0.71**						
Website Information[2]	0.12	0.03	0.184	**0.81**					
Product Attribute[3]	0.34	0.08	0.257	0.068	**0.72**				
Price[4]	0.01	0.00	0.056	0.038	.024	**0.71**			
Services Offered[5]	0.12	0.04	0.028	0.153	.014	.073	**0.77**		
Product Delivery[6]	0.13	0.05	0.380	0.039	.170	.081	.028	**0.76**	
Customer Buying Behavior [7]	0.34	0.09	0.612	0.253	.291	.118	.020	.378	**0.72**

Note: Values in BOLD are square root of AVE

The Table 4.3.6. Shows the maximum shared variance and correlation matrix of online shopping the correlation matrix related to the Convergent and Discriminant validity of the constructs of online shopping. The Maximum Shared Variance and Average Shared Variance should be less than average variance extracted of the construct and square of average variance extracted should be greater than correlation loadings of other constructs.

- From the above table, the key point to be observed i.e. MSV & ASV should be less than AVE.
- Square of AVE should be greater than correlation Loadings of other constructs

According to McKinnon; Shrout& Bolger, significance of the indirect path is sole criteria for mediation test. The model of online shopping to test the mediation is provided in Figure 4.2.

Figure 4.2. Online Shopping Mediation Assumption Model

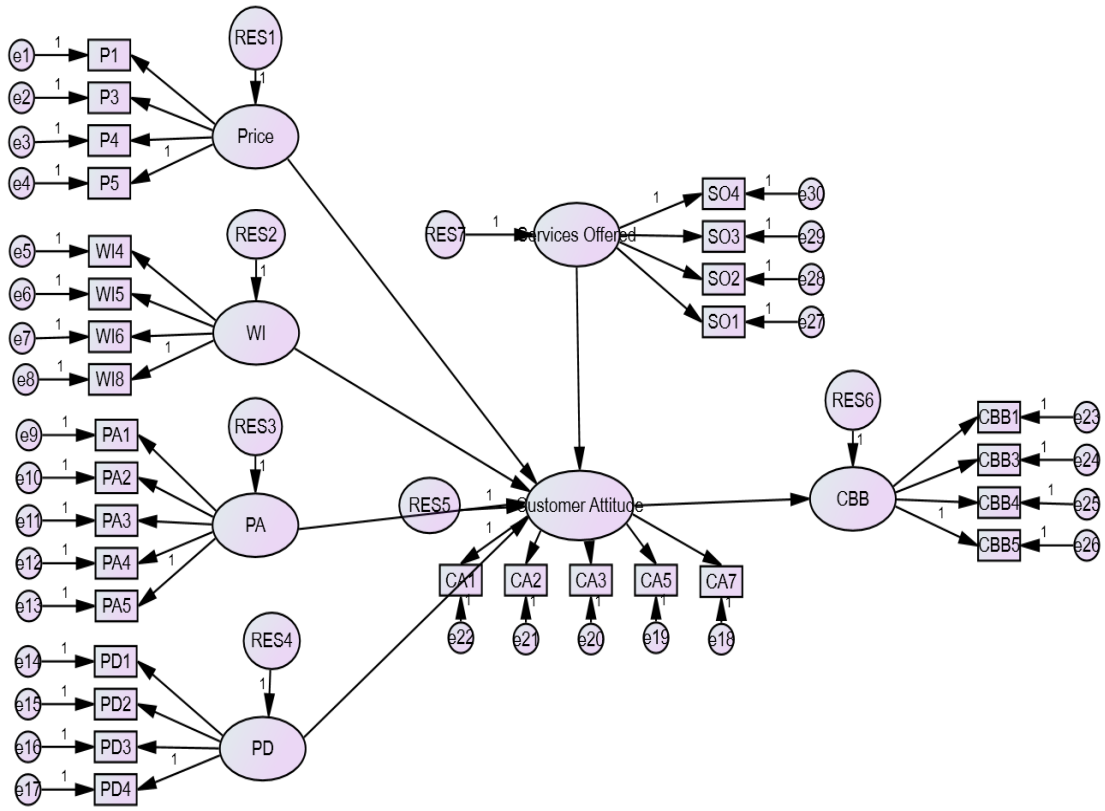


Table: 4.3.7. Assumption Model of Online Shopping

Relation	Estimate	P-Value	R^2
WI→ CA	0.209	0.000	0.275
PA→ CA	0.257	0.000	
PD → CA	0.404	0.000	
Price → CA	0.049	0.201	
SO→ CA	0.008	0.849	
CA→ CBB	0.691	0.000	0.477
WI→ CA→ CBB	0.144	0.000	
PA→ CA→ CBB	0.178	0.000	
PD → CA→ CBB	0.279	0.000	
Price → CA→ CBB	0.034	0.194	
SO→ CA→ CBB	0.006	0.859	

Model fit indices: $\chi 2$ = 1002.983; df = 399; p-value = 0.000; GFI = 0.928; CFI = 0.950; NFI = 0.919; RFI = 0.912; IFI = 0.950; TLI = 0.945; RMSEA = 0.042.

The abbreviation of above Table 4.3.7 values P = .000; Df - degrees of freedom, GFI-Goodness of Fit, RMSEA- Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI- Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer buying behavior in online shopping, and finally, SO= Services Offered by online retailers for the online products/services.

The above Table: 4.3.7. indicates that direct paths from website information (WI), Product Attributes (PA), Product Delivery (PD) and customer attitude to customer buying behavior are significant with p-value < 0.001 and their loadings are 0.209, 0.257, 0.404 and 0.691 respectively. Other two independent variables labeled price and SO were found to be insignificant with p-value 0.201 and 0.849. Indirect path estimates were tested from

independent variables. Customer Attitude mediates customer shopping behaviour. Results indicate that three circuitous paths from website information (WI), Product Attribute (PA), and Product Delivery (PD) leading to Customer buying behavior (CBB) were significant. The other two indirect paths were insignificant. Independent variables cumulatively showed 0.275 percent of variation in customer attitude. Customer buying behavior variables have observed with 0.477 percent of variation from the model. Model fit indices were showing the good fit of the model with $\chi 2 = 1002.983$; DF = 399; p-value = 0.000; GFI = 0.928; CFI = 0.950; NFI = 0.919; RFI = 0.912; IFI = 0.950; TLI = 0.945; RMSEA = 0.042.

Figure: 4.3 Final Model: Online Shopping

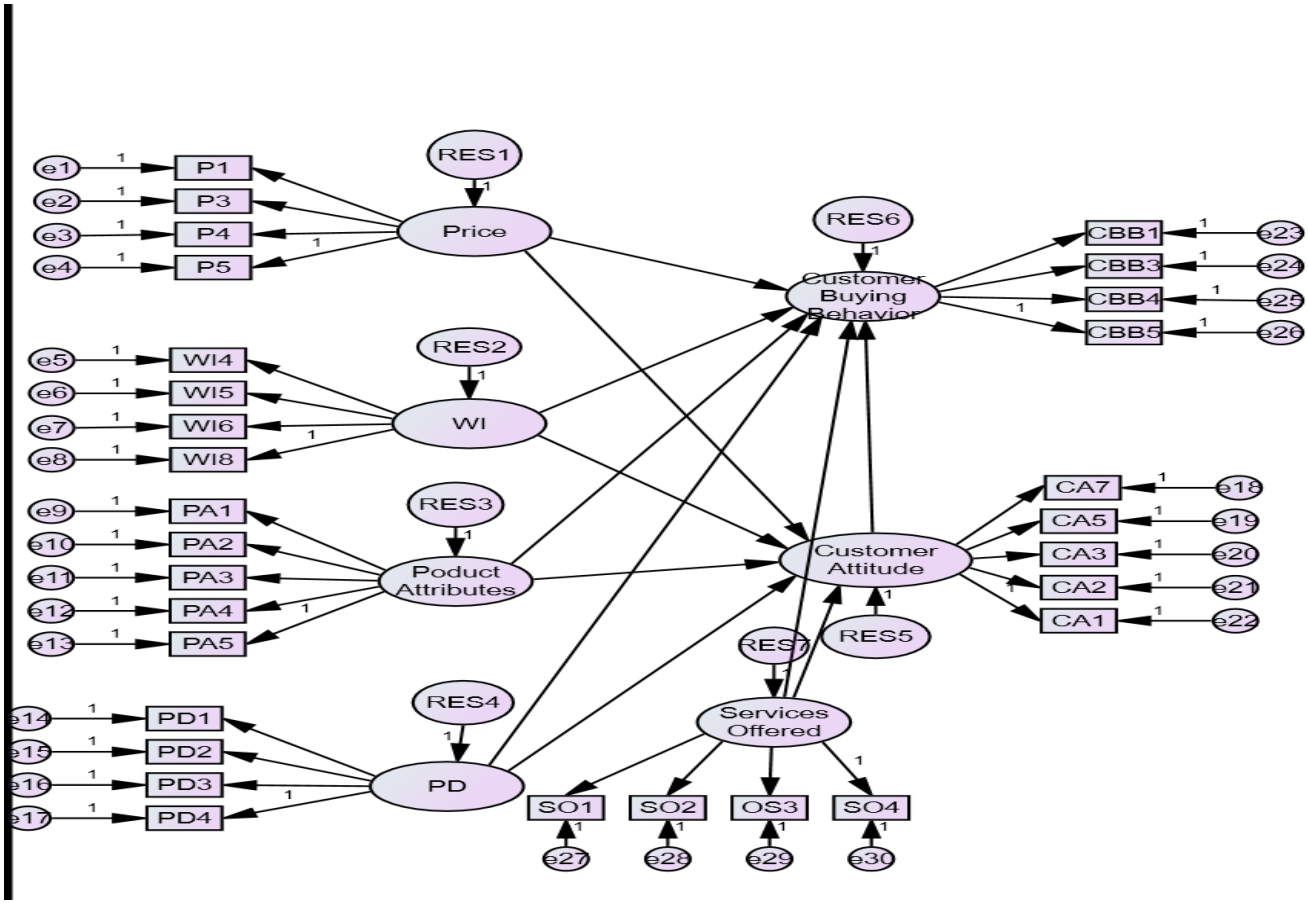


Table: 4.3.8.Final Model: Online Shopping

Relation	Estimate	P-Value	R^2
WI→ CA	0.181	0.000	0.244
PA→ CA	0.243	0.000	
PD → CA	0.389	0.000	
Price → CA	0.032	0.425	
SO→ CA	0.014	0.753	
WI→ CBB	0.117	0.000	0.474
PA→ CBB	0.077	0.014	
PD → CBB	0.091	0.007	
Price → CBB	0.071	0.026	
SO→ CA	-0.021	0.548	
CA→ CBB	0.590	0.000	
WI→ CA→ CBB	0.107	0.000	
PA→ CA→ CBB	0.143	0.000	
PD → CA→ CBB	0.230	0.000	
Price → CA→ CBB	0.019	0.406	
SO→ CA→ CBB	0.008	0.759	

Model fit indices: $\chi 2$ = 972.809; df = 394; p-value = 0.000; GFI = 0.930; CFI = 0.952; RFI = 0.914; IFI = 0.952; NFI = 0.922; TLI = 0.947; RMSEA = 0.041.

The abbreviation of above Table 4.3.8. P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA=Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior towards online shopping, and finally, SO= Services Offered for the online product.

The Table 4.3.8 indicates that direct paths from website information (WI), Product Attributes (PA), Product Delivery (PD) and Customer Attitude resulting in Customer buying behavior are significant with p-value < 0.001 and their loadings are 0.181, 0.243, 0.389 and 0.117 respectively. Other two independent variables labeled Price and Services offered (SO) were found to have insignificant results on preference towards online shopping with p-value 0.425 and 0.753. Indirect path estimates were tested from independent variables namely Website Information (WI), Product Attributes (PA), Product Delivery (PD), Price and Services Offered by online retailer (SO) resulting in customer buying behaviour mediated by customer attitude. Results indicate that three circuitous paths from website information, Product Attribute and Product Delivery to Customer buying behavior were significant. The other two indirect paths were insignificant. Independent variables cumulatively showed 0.244 percent of the coefficient of determination variation on shopping preference. Model fit indices were showing the good fit of the model with $\chi 2 = 972.809$; DF = 394; p-value = 0.000; GFI = 0.930; CFI = 0.952; NFI = 0.922; RFI = 0.914; IFI = 0.950; TLI= 0.947; RMSEA = 0.041.

4.3.3. Hypotheses Testing Results

Table: 4.4.1 Online Shopping Mediation Hypothesis Results

S. No	Hypotheses	Decision
H_1	There is a significant relationship between website information and customer attitude.	Supported
H_2	There is a significant relationship between product attributes and customer attitude	Supported
H_3	There is a significant relationship between product delivery and customer attitude	Supported
H_4	There is a significant relationship between price of online products and customer attitude	Not Supported
H_5	There is a significant relationship between Services offered by online retailers and customer attitude	Not Supported

H_6	There is a significant relationship between website information and customer buying behavior.	Supported
H_7	There is a significant relationship between Product attribute and customer buying behavior towards online shopping	Not Supported
H_8	There is a significant relationship between Product Delivery and customer buying behavior towards online shopping	Not Supported
H_9	There is a significant relationship between Price and customer buying behavior towards online shopping	Supported
H_{10}	There is a significant relationship between Services offered and customer buying behavior towards online shopping	Not Supported
H_{11}	There is a significant relationship between customer attitude and customer buying behavior towards online shopping	Supported
H_{12}	Relationship between website information and customer buying behavior mediated by customer attitude	Supported
H_{13}	Relationship between Product attributes and customer buying behavior mediated by customer attitude	Supported
H_{14}	Relationship between Product Delivery and Customer buying behavior mediated by customer attitude	Supported
H_{15}	Relationship between Price and customer buying behavior mediated by customer attitude	Not Supported
H_{16}	Relationship between Services offered and customer buying behavior mediated by customer attitude	Supported
H_{17}	There is a significant relationship between preference towards online shopping between male and female customers.	Not Supported
H_{18}	There is a significant relationship between preferences towards online shopping across customers of different age groups.	Not Supported
H_{19}	There is a significant relationship between preference towards online shopping among customers with different levels of education	Not Supported
H_{20}	There is a significant relationship preference towards online shopping among customer belonging to different income levels.	Not Supported

4.3.3.1. ONLINE SHOPPING MODERATION ANALYSIS

H_0: There is no effect of gender as moderator for relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior in online shopping.

H_1: Gender significantly moderates the relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior in online shopping.

Table: 4.5.1.Chi-square difference test for Gender

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1502.511	41.616	784	4
Constrained Model	1562.127		788	

Chi-square difference value 41.616 with DF = 4 is observed from table no. 4.5.1.1. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. The Chi-square table value for DF = 4 at 0.05 level of significance is 9.488. This indicates that the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is a difference between the male and female respondents in estimating the direct and indirect paths of the model.

Table: 4.5.1.1. Gender as Moderator

	MALE		FEMALE	
Relation	**Estimate**	**P-Value**	**Estimate**	**P-Value**
WI→CA	0.149	0.000	0.290	0.000
PA→ CA	0.256	0.000	0.227	0.002
PD → CA	0.389	0.000	0.362	0.000
Price → CA	0.055	0.239	-0.006	0.941
SO→ CA	0.043	0.423	-0.053	0.503
INFO→ CBB	0.122	0.000	0.130	0.056
PA→ CBB	0.104	0.004	-0.004	0.952
PD → CBB	0.079	0.038	0.129	0.063
Price → CBB	0.058	0.105	0.100	0.129
SO→ CBB	-0.065	0.129	0.025	0.702
CA→ CBB	0.624	0.000	0.497	0.000
WI→ CA→ CBB	0.093	0.004	0.144	0.000
PA→ CA→ CBB	0.160	0.000	0.113	0.001
PD → CA→ CBB	0.243	0.000	0.180	0.000
Price → CA→ CBB	0.034	0.302	-0.003	0.943
SO→ CA→ CBB	0.027	0.405	-0.026	0.453
Model fit indices: $\chi 2$ = 1562.127; df = 788; p-value = 0.000; GFI = 0.924; CFI = 0.938; NFI = 0.902; RFI = 0.921; IFI = 0.938; TLI = 0.932; RMSEA = 0.032.				

Male: R^2 = 0.244 (CA), R^2 = 0.524 (CBB); **Female:** R^2 = 0.269 (CA), R^2 = 0.372 (CBB)

The abbreviation of above Table 4.5.1.1. P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior towards online shopping, and finally, SO= Services Offered for the online product.

Detailed differences between Genders were shown in table no. 4.5.1.1. Here, p-values of male and female were considered to identify statistical significance. Direct effect between independent variables Information, Product Attributes, Product Delivery and Customer Attitude has statistical significance for both male and female respondents. Direct effect between Information, Product Attributes, Product Delivery and Customer Buying Behaviour has statistical significance. Price and Services Offered were identified to have insignificant effect for male respondents. Indirect effect of Website Information → Customer Attitude→ Customer Buying Behavior, Product Attribute→ Customer Attitude→ Customer Buying Behaviour and Product Delivery → Customer Attitude→ Customer Buying Behavior were identified to effect both for male and female respondents. Whereas, Price → Customer Attitude→ Customer Buying Behaviour and Service Offered→ Customer Attitude → Customer Buying Behaviour were identified to have effect on female respondents. Model fit indices $\chi 2 = 1562.127$; DF = 788; p-value = 0.000; GFI = 0.924; CFI = 0.938; NFI = 0.902; RFI = 0.921; IFI = 0.938; TLI = 0.932; RMSEA = 0.032 values indicate good fit.

H_0: There is no effect of Age (of respondents) as moderator for relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

H_2: ***Age (of respondents) significantly moderates the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.***

Table: 4.5.2. Chi-square difference test for Age

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1407.949	61.87	782	4
Constrained Model	1469.819		786	

Chi-square difference value 61.87 with DF = 4 is observed from table no. 4.5.2.1. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 4 at 0.05 level of significance is 9.48. This indicates the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is difference between the age of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.2.1 Age as Moderator

	Age Below 25 Years		**Above 25 years**	
Relation	**Estimate**	**P-Value**	**Estimate**	**P-Value**
WI→ CA	.203	0.000	.166	.002
PA→ CA	.280	0.001	.203	0.000
PD → CA	.357	0.002	.416	0.001
Price →CA	.101	.076	-.071	.199
SO→ CA	.067	.296	-.028	.653
WI→ CBB	.152	0.000	.067	.119
PA→ CBB	0.000	.994	.161	0.000
PD → CBB	.125	.006	.035	.470
Price → CBB	.071	.102	.083	.068
SO→ CBB	-.007	.884	-.042	.413
CA→ CBB	.628	0.000	.571	0.000
INFO→ CA→ CBB	.127	0.000	.095	.005

PA→ CA→ CBB	.176	0.000	.116	0.001
PD → CA→ CBB	.224	0.000	.238	0.000
Price → CA→ CBB	.063	.079	-.041	.260
SO→ CA→ CBB	.042	.273	-.016	.686

Model fit indices $\chi 2$ = 1493.931; DF = 788; p-value = 0.000; GFI = 0.907; CFI = 0.943; NFI = 0.927; RFI = 0.925; IFI = 0.943; TLI = 0.937; RMSEA = 0.032.

Below 25 years: R^2 = 0.261 (CA), R^2 = 0.541 (CBB); above 25 years: R^2 = 0.247 (CA), R^2 = 0.447 (CBB)

The abbreviation of above Table 4.5.2.1. P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI = Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior towards online shopping, and finally, SO= Services Offered for the online product.

Detailed differences among various age groups were shown in table no. 4.5.2. Here, p-values of age below 25 years and Above 25 years of age were considered to identify statistical significance. Direct effect between independent variables Information, Product Attribute, Product Delivery relationship with Customer Attitude has statistical significance for respondents below 25 years and above 25 years of age, whereas, Price and Service Offered were identified to be insignificant for below 25 years and above 25 years of age. Direct effect between website Information, Product Attribute, and Product Delivery relationship with Customer Buying Behaviour has statistical significance. Price and Service Offered were identified to be insignificant for below 25 years of age and above 25 years of age. Whereas, all five independent variables were observed insignificant direct relationship with Customer Buying Behaviour for above 25 years. Indirect effect of Website Information → Customer

Attitude → Customer Buying Behaviour, Product Attribute → Customer Attitude → Customer Buying Behaviour and Product Delivery → Customer Attitude→ Customer Buying Behaviour were identified to have statistically significant relationship for below 25 years and above 25 years of age. Whereas, Price → Customer Attitude → Customer Buying Behaviour and Service Offered → Customer Attitude → Customer Buying Behaviour were identified as insignificant relationship for above 25 years of age. Model fit indices $\chi 2$ = 1493.931; DF = 788; p-value = 0.000; GFI = 0.907; CFI = 0.943; NFI = 0.927; RFI = 0.925; IFI = 0.943; TLI = 0.937; RMSEA = 0.032.

H_0: There is no effect of Education as moderator for relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behaviour towards online shopping.

H_3: Education significantly moderates the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping

Table: 4.5.3. Chi-square difference test for Education

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1502.684	88.118	788	41
Constrained Model	1590.802		829	

Chi-square difference value 88.118 with DF = 41 is observed from table no. 4.5.3. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF= 41 at 0.05 level of significance is 56.94. This indicates the calculated value greater than table value and falls into rejection region.

Therefore, we may reject null hypothesis and conclude that there is a difference between the education of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.3.1. Education as Moderator

	Up to UG		PG & Above	
Relation	Estimate	P-Value	Estimate	P-Value
WI→ CA	.113	.067	.217	0.000
PA→ CA	.148	.016	.295	0.000
PD → CA	.570	0.000	.287	0.002
Price → CA	-.052	.421	.080	.107
SO→ CA	-.046	.514	.052	.352
WI→ CBB	.100	.056	.126	0.003
PA→ CBB	.023	.652	.101	.010
PD → CBB	-.060	.377	.131	0.002
Price → CBB	.139	.014	.041	.282
SO→ CBB	.018	.755	-.029	.501
CA→ CBB	.725	0.000	.562	0.000
INFO→ CA→ CBB	.082	.090	.122	0.000
PA→ CA→ CBB	.107	.019	.166	0.000
PD → CA→ CBB	.413	0.000	.163	0.000
Price → CA→ CBB	-.038	.370	.045	.093
SO→ CA→ CBB	-.033	.486	.029	.344

Model fit indices $\chi 2$ = 1502.684; DF = 788; p-value = 0.000; GFI = 0.902; CFI =0.932; NFI = 0.934; RFI = 0.912; IFI = 0.943; TLI = 0.936; RMSEA = 0.033.

Up to UG: R^2 = 0.364 (CA), R^2 = 0.750 (CBB); **PG & Above**: R^2 = 0.255 (CA), R^2 = 0.433 (CBB)

The abbreviation of above Table 4.5.3.1. P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-

Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer attitude, P= Price, PA= Product Attributes, CBB= Customer buying behavior towards online shopping, and finally, SO= Services offered for the online product.

Detailed differences between education levels were shown in table no. 4.5.3.1. Here, p-values of education up to UG and PG and above levels of education were considered to identify statistical significance. Direct effect between independent variables Information, Product Attribute, Product Delivery relationship with Customer Attitude has statistical significance for up to UG and PG and above levels of education. Whereas, Price and Service Offered were identified to be insignificant for up to UG and PG and above levels of education. Direct effect between Information, Product Attribute, and Product Delivery relationship with Customer Buying Behaviour has statistical significance, Price and Service Offered were identified insignificant for up to UG and PG and above levels of education. The four independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for above PG and above of education. Indirect effect of Website Information → Customer Attitude → Customer Buying Behaviour, Product Attribute → Customer Attribute → Customer Buying Behaviour and Product Delivery → Customer Attitude → Customer Buying Behaviour were identified to have statistically significant relationship for up to UG and PG and above levels of education. Whereas, Price → Customer Attitude → Customer Buying Behaviour and Service Offered → Customer Attitude → Customer Buying Behaviour were identified to have insignificant relationship for PG and above. Model fit indices $\chi 2 = 1502.684$; DF = 788; p-value = 0.000; GFI = 0.902; CFI =0.932; NFI = 0.934; RFI = 0.912; IFI = 0.943; TLI = 0.936; RMSEA = 0.033.

H_0: There is no effect of Marital Status as moderator for relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

H_4: Marital Status significantly moderates the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

Table: 4.5.4. Chi-square difference test for Marital Status

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1504.492	91.801	784	43
Constrained Model	1596.293		827	

Chi-square difference value 91.801 with DF = 43 is observed from table no. 4.5.4. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Chi-square table value for DF = 43 at 0.05 level of significance is 59.30. This indicates the calculated value is greater than table value and falls into the rejection region. Therefore, we may reject null hypothesis and conclude that there is a difference between the marital status of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.4.1. Marital Status as Moderator

	Married		Un-Married	
Relation	Estimate	P-Value	Estimate	P-Value
WI→ CA	.252	.000	.134	.000
PA→ CA	.298	.000	.232	.000
PD → CA	.340	.001	.421	.000
Price → CA	.103	.129	-.019	.695
SO→ CA	.025	.722	.014	.796

WI→ CBB	.047	.362	.166	.000
PA→ CBB	.056	.303	.079	.039
PD → CBB	.152	.006	.048	.250
Price → CBB	.018	.738	.105	.008
SO→ CBB	-.031	.589	-.026	.549
CA → CBB	.609	.002	.589	.000
WI→ CA→ CBB	.154	.003	.079	.005
PA→ CA→ CBB	.181	.001	.136	.002
PD → CA→ CBB	.207	.003	.248	.004
Price → CA→ CBB	.063	.151	-.011	.689
SO→ CA→ CBB	.015	.762	.008	.768

Model fit indices $\chi 2$ = 1559.361; DF = 788; p-value = 0.000; GFI = 0.932; CFI = 0.938; NFI = 0.933; RFI = 0.921; IFI = 0.938; TLI = 0.931; RMSEA = 0.034.

Married: R^2 = 0.279 (CA), R^2 = 0.504 (CBB); **UN Married**: R^2 = 0.249 (CA), R^2 = 0.481 (CBB)

The abbreviation of above Table 4.5.4.1. : P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CA= Customer Buying Behavior towards online shopping, and finally, SO= Services Offered by the online retailer.

Details related to marital status of the respondents were shown in table no. 4.5.4.1. Here, p-values of groups based on marital status were considered to identify the statistical significance. Direct effect between independent variables Product Attributes, Product Delivery relationship with Customer Attitude has statistical significance based on the marital status of the respondents. The variables Price and Service Offered were identified to be insignificant for

marital status. Direct effect between Information, Product Attribute, Product Delivery relationship with Customer Buying behaviour has statistical significant, Price and Service Offered were identified insignificant for marital. The four independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for unmarried respondents. Indirect effect of Website Information → Customer Attribute → Customer Buying Behaviour, Product Attribute → Customer Attitude → Customer Buying Behaviour and Product Delivery → Customer Attitude were identified to have statistically significant relationship on the marital status of the respondents. Price → Customer Attitude → Customer Buying Behaviour and Service Offered → Customer Attitude → Customer Buying Behaviour were identified to have insignificant relationship unmarried respondents. Model fit indices $\chi 2$ = 1559.361; DF = 788; p-value = 0.000; GFI = 0.932; CFI = 0.938; NFI = 0.933; RFI = 0.921; IFI = 0.938; TLI = 0.931; RMSEA = 0.034.

H_0: There is no effect of income (of respondents)as moderator for relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behaviour towards online shopping.

H_5: Income (of respondents) significantly moderates the relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

Table: 4.5.5. Chi-square difference test for Income

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1466.852	42.206	782	2
Constrained Model	1509.058		784	

Chi-square difference value 42.206 with DF = 2 is observed from table no. 4.5.5. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 2 at 0.05 level of significance is 5.991. This indicates the calculated value is greater than table value and falls into rejection region. Therefore, null hypothesis may be rejected and conclude that there is a difference between the income of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.5.1. Income as Moderator

	Less than 25000		Above 25000	
Relation	Estimate	P-Value	Estimate	P-Value
WI→CA	.152	.003	.213	.005
PA→ CA	.284	.002	.180	.003
PD →CA	.342	.000	.459	.000
Price → CA	.015	.788	.061	.283
SO→ CA	-.062	.330	.101	.112
WI→ CBB	.151	.000	.078	.096
PA→ CBB	.101	.016	.046	.314
PD → CBB	.012	.783	.187	.000
Price → CBB	.106	.013	.032	.496
SO→ CBB	-.046	.338	.035	.504
CA→ CBB	.646	.000	.504	.000
WI→ CA→ CBB	.098	.000	.108	.000
PA→ CA→ CBB	.184	.000	.091	.001
PD → CA→ CBB	.221	.000	.231	.002
Price → CA→ CBB	.010	.795	.031	.220
SO→ CA→ CBB	-.041	.363	.051	.088

Model fit indices: $\chi 2$ = 1551.387; DF = 788; p-value = 0.000; GFI = 0.933; CFI = 0.938; NFI = 0.913; RFI = 0.921; IFI = 0.939; TLI = 0.932; RMSEA = 0.034.

Less than 25000: R^2 = 0.224 (CA), R^2 = 0.557 (CBB); **Above 25000**: R^2 = 0.302 (CA), R^2 = 0.376 (CBB)

The abbreviation of above Table 4.5.5.1: P = .000; df-degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI = Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behaviour in online shopping, and finally, SO= Services offered for the online product.

Detailed differences between incomes levels less than Rs.25, 000 per month and above Rs. 25, 000 per month were shown in table no. 4.5.5.1. Direct effect between independent variables website information, Product Attribute, Product Delivery relationship with Customer Attitude has statistical significance for monthly income levels less than Rs.25, 000 and above Rs.25, 000. Price and Service Offered were found insignificant for monthly income levels less than Rs.25, 000 and above 25000 of income. Direct effect between Information, Product Attribute, and Product Delivery relationship with Customer Buying Behaviour has statistical significance. Price and Service Offered were found insignificant for less than Rs.25, 000 and above Rs25, 000 income levels. All five independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for less than 25000 and above 25000 of income. Indirect effect of Website Information → Customer Attitude → Customer Buying Behaviour, Product Attribute → Customer Attribute → Customer Buying Behaviour and Product Delivery → Customer Attitude→ Customer Buying Behaviour were identified to have statistically significant relationship for income levels less than Rs.25, 000 and above Rs.25, 000. Whereas, Price → Customer Attitude→ Customer Buying Behaviour and Service Offered → Customer Attitude → Customer Buying Behaviour were identified to have insignificant relationship for monthly income levels above Rs.25, 000. Model fit indices

$\chi 2$ = 1551.387; DF = 788; p-value = 0.000; GFI = 0.933; CFI = 0.938; NFI = 0.913; RFI = 0.921; IFI = 0.939; TLI = 0.932; RMSEA = 0.034.

H_0: There is no effect of occupation as a moderator for relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

H_6: Occupation has significantly moderates the relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.

Table: 4.5.6. Chi-square difference test for Occupation

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1567.724		786	41
Constrained Model	1894.088	326.364	827	

Chi-square difference value 326.364 with DF = 41 is observed from table no. 4.5.6. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 41 at 0.05 level of significance is 56.942. This indicates the calculated value is greater than table value and falls into rejection region. Therefore, null hypothesis may be rejected and it is conclude that there is a relationship between the occupation of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.6.1. Occupation as Moderator

	Employee		Non-Employee	
Relation	Estimate	P-Value	Estimate	P-Value
WI→ CA	.220	.003	.049	.448
PA→ CA	.348	.002	.111	.068
PD → CA	.267	.000	.603	.000
Price → CA	.034	.481	.090	.167
SO→ CA	.023	.680	.017	.800
WI→ CBB	.128	.000	.082	.138
PA→ CBB	.157	.001	-.044	.391
PD → CBB	.129	.003	-.041	.533
Price → CBB	.043	.244	.125	.027
SO→ CBB	-.010	.817	-.054	.346
CA→ CBB	.537	.002	.742	.002
INFO→ CA→ CBB	.118	.002	.037	.462
PA→ CA→ CBB	.187	.000	.082	.040
PD → CA→ CBB	.144	.001	.447	0.000
Price → CA→ CBB	.018	.503	.067	.146
SO→ CA→ CBB	.012	.696	.013	.784

Model fit indices: $\chi 2$ = 1676.586; DF = 788; p-value = 0.000; GFI = 0.926; CFI = 0.932; NFI = 0.910; RFI = 0.927; IFI = 0.933; TLI = 0.925; RMSEA = .036.

Employee: R^2 = 0.242 (CA), R^2 = 0.418 (CBB); **Non-Employee:** R^2 = 0.386 (CA), R^2 = 0.792 (CBB)

The abbreviation of above Table 4.5.6.1.: P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior towards online shopping, and finally, SO= Services Offered by the online retailer.

Detailed differences between employee and non-employee of occupation were shown in table no. 4.5.6.1. Here, p-values of employee and non- employee status were considered to identify statistical significance. Direct effect between independent variables website Information, Product Attribute, Product Delivery relationship with Customer Attitude has statistical significance for employee and non-employee status of the respondents. Whereas, Price and Service Offered were identified to be insignificant for employee and non- employee status of respondents. Direct effect between website information, Product Attribute, and Product Delivery relationship with Customer Buying Behaviour has statistical significance. Price and Service Offered were identified to have insignificant effect on the employment status of the respondents. All five independent variables were observed to have insignificant direct relationship with CBB for occupation status of respondents. Indirect effect of Website Information → Customer Buying Behaviour, Product Attribute → Customer Attitude → Customer Buying Behaviour and Product Delivery → Customer Attitude → Customer Buying Behaviour were identified to have statistically significant relationship on status of occupation of the respondents. Price → Customer Attitude → Customer Buying Behaviour and Service Offered → Customer Attitude were identified to have insignificant relationship for non-employee. Model fit indices $\chi 2 = 1676.586$; DF = 788; p-value = 0.000; GFI = 0.926; CFI = 0.932; NFI = 0.910; RFI = 0.927; IFI = 0.933; TLI = 0.925; RMSEA = .036.

H_0: There is no effect of 'mode of payment in online shopping' as moderator for relationship between information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior in online shopping.

H_7: 'Mode of payment in online shopping' significantly moderates the relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior in online shopping.

Table: 4.5.7.1. Chi-square difference test for Payment Mode

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1905.838	120.518	1167	82
Constrained Model	2026.356		1249	

Chi-square difference value 120.518 with DF = 82 is observed from table no. 4.5.7. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 82 at 0.05 level of significance is 104.139. This indicates the calculated value is less than table value and falls into rejection region. Therefore, null hypothesis may be rejected and it is conclude that there is a relationship between the payments methods of respondents in estimating the direct and indirect paths of the model.

Table: 4.5.7.1. Mode of payment as a moderator

	Debit/credit card		Net/Mobile Banking		Cash on Delivery	
Relation	Estimate	P-Value	Estimate	P- Value	Estimate	P-Value
WI→ CA	.126	.034	.103	.105	.354	0.003
PA→ CA	.320	.003	.169	.010	.231	0.002
PD → CA	.436	.002	.451	0.002	.240	.005

Price → CA	-.022	.725	.081	.226	.026	.730
SO→ CA	.041	.547	.105	.208	.085	.273
WI→ CBB	.165	.002	.051	.329	.082	.236
PA→ CBB	.012	.810	.149	.007	.029	.555
PD → CBB	-.036	.514	.192	0.003	.121	.052
Price → CBB	.090	.081	.051	.352	.120	.051
SO→ CBB	.018	.736	-.070	.289	-.017	.778
CA→ CBB	.681	.000	.480	0.003	.649	0.000
WI→ CA→ CBB	.086	.039	.050	.157	.230	0.000
PA→ CA→ CBB	.218	.000	.081	.011	.150	0.002
PD → CA→ CBB	.297	0.000	.216	0.004	.156	.005
Price → CA → CBB	-.015	.683	.039	.240	.017	.723
SO→ CA→ CBB	.028	.557	.050	.165	-.055	.273

Model fit indices: $\chi 2$ = 2016.678; DF = 1182 p-value = 0.000; GFI = 0.927; CFI = 0.907; NFI = 0.934; RFI = 0.918; IFI = 0.934; TLI = 0.926; RMSEA = .029.

Cash on Delivery: R^2 = 0.244 (CA), R^2 = 0.561 (CBB); **Debit/Credit cards:** R^2 = 0.310 (CA), R^2 = 0.644 (CBB); **Internet Banking**: R^2=0.260 (CA), R^2=0.359 (CBB).

The abbreviation of above Table 4.5.7.1.: P = .000; dfdegrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

WI= Website Information, CA= Customer Attitude, P= Price, PA= Product Attributes, CBB= Customer Buying Behavior in shopping, and finally, SO= Services Offered by online retailers.

Detailed differences between various modes of payment in online shopping viz. Cash on Delivery, Net-Banking, and Debit/Credit Cards of payments methods were shown in table no. 4.5.7.1. Here, p-values of Cash on Delivery, Net-Banking, and Debit/Credit Cards of payments methods were considered to identify statistical significance. Direct effect between independent

variables Information, Product Attribute, Product Delivery relationship with Customer Attitude has statistical significance for Cash on Delivery, Net-Banking, and Debit/Credit Cards of payments methods. Price and Service Offered were identified to be insignificant for Cash on Delivery, Net-Banking, and Debit/Credit Cards modes of payments. Direct effect between Information, Product Attribute, and Product Delivery relationship with Customer Buying Behavior has statistical significance. Price and Service Offered were identified to be insignificant for Cash on Delivery, Net-Banking, and Debit/Credit Cards mode of payments. All five independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for Cash on Delivery, Net-Banking, and Debit/Credit Cards of payments methods. Indirect effect of website information → Customer Attitude→ Customer Buying Behaviour, Product Attribute→ Customer Attitude→ Customer Buying Behaviour and Product Delivery → Customer Attitude→ Customer Buying Behaviour were identified to have statistically significant relationship for Cash on Delivery, Net-Banking, and Debit/Credit Cards modes of payments. Whereas, Price → Customer Attitude → Customer Buying Behaviour and Service Offered → Customer Attitude → Customer Buying Behaviour were identified to have insignificant relationship for debit and credit cards mode of payment. Model fit indices $\chi 2$ = 2016.678; DF = 1182 p-value = 0.000; GFI = 0.927; CFI = 0.907; NFI = 0.934; RFI = 0.918; IFI = 0.934; TLI = 0.926; RMSEA = .029.

4.4. Offline Shopping Data Analysis

4.4.1. Exploratory Factor Analysis (EFA)

KMO value varies between 0 and 1. Value 0 indicates that the sum of partial correlations is significant, relative to the sum of correlations, indicating factor analysis was likely to be inappropriate. Kaiser (1974) recommends the value above .5 as acceptable. The KMO value obtained for the study is .881, which can be considered as a good value. Bartlett's measure tests

the null hypothesis that the original correlation matrix is an identity matrix. Thus there are as many factors as the items, and thus for doing the factor analysis, the test should be significant (Hair, Anderson, Tatham, & Black, 1998). For this data, Bartlett's test is highly significant (p = .000), and therefore factor analysis is appropriate. The results for KMO and Bartlett's test were presented below in Table 4.6.1.

Table: 4.6.1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	13834.092
	Df	276
	Sig.	.000

Table: 4.6.2.Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.423	30.928	30.928	7.423	30.928	30.928	4.776	19.900	19.900
2	3.150	13.127	44.055	3.150	13.127	44.055	3.750	15.623	35.523
3	2.519	10.494	54.549	2.519	10.494	54.549	2.959	12.330	47.853
4	1.914	7.973	62.522	1.914	7.973	62.522	2.753	11.469	59.322
5	1.857	7.739	70.261	1.857	7.739	70.261	2.625	10.939	70.261

Extraction Method: Principal Component Analysis.

The Exploratory Factor analysis for offline shopping factors has resulted in five factors with total variance explained of 70.261 and Initial Eigen values of more than 1. This results were considered for further analysis.

Table: 4.6.3.Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
OFFCBB1	.926				
OFFCBB6	.917				
OFFCBB5	.893				
OFFCBB2	.858				
OFFCBB3	.800				
OFFCBB4	.743				
OFFCA7		.840			
OFFCA9		.742			
OFFCA6		.737			
OFFCA5		.730			
OFFCA8		.725			
OFFCA2		.710			
OFFSS3			.857		
OFFSS4			.809		
OFFSS2			.806		
OFFSS1			.765		
OFFSA5				.887	
OFFSA6				.771	
OFFSA4				.755	
OFFSA1				.752	
OFFP3					.822
OFFP4					.796
OFFP2					.782
OFFP1					.748

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

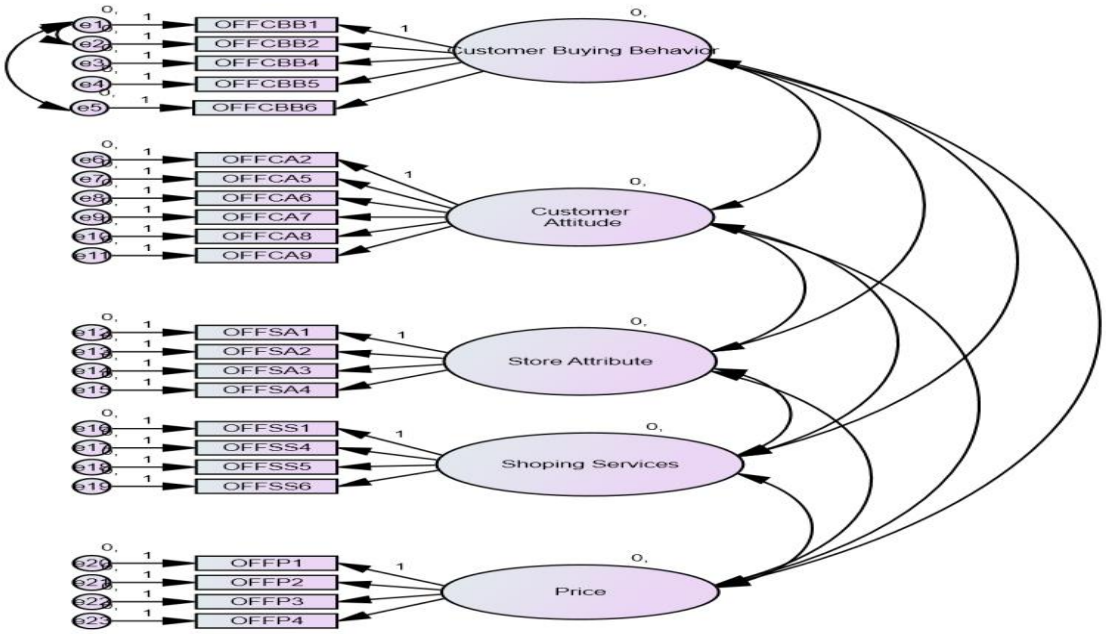
CA= Customer Attitude, P= price, SA= Store Attributes, CBB= Customer Buying Behavior in offline shopping, and finally, SS= Services offered by offline retailer.

The rotated component matrix analyses has resulted in five factors. Each of these five factors have high internal consistency as a minimum alpha value of .70 is acceptable for using the scale for further analysis (Hair, Black, Babin, Anderson, & Tatham, 2006).

The five factors are named Price (P), Customer Attitude (CA), Customer Buying Behavior in offline shopping (CBB), Store Attributes (SA) and finally Services offered by offline retailer to the customer (SS). 24 items were considered after cross loading to establishing the construct validity of the scale measurement. Exploratory factor analysis attempts to bring inter-correlated variables together under more general, underlying variables. The goal of factor analysis is to "reduce the dimensionality of the original space and to stick to the new space factors dimensions, spanned by a reduced number of new dimensions which are supported to underlie the old ones" (Rietveld and Van Hout, 1993; pp. 254). Thus, it offers not only the possibility of gaining a clear view of the data but also the possibility of using the output in subsequent analyses (Field, 2000). Principal component analysis, which is one of the most commonly used extraction methods was utilized for this study, as it seeks to summarize most of the original information in a minimum number of factors for prediction purposes. Some other criterion such as Eigenvalue > 1 is used for determining the number of extracted elements, and VARIMAX rotation, the anti-image correlation for diagonal entries >.5 were set to remove the factors. The following criteria were used to determine the factor structure as suggested by Hair et al. (2008): (a) the loading for each item on a factor should be more than or equal to ±0.40; and (b) the items which are having cross loadings should be excluded if the difference between the loadings is less than 0.20 those items are dropped for further analysis.

4.4.2 Confirmatory Factor Analyses of Offline Shopping

Figure: 4.4 First Order Confirmatory Factor Analysis



First order confirmatory factor analyses have been run to check the item intercorrelation between the constructs.

Table: 4.6.4. First order Confirmatory Factor Analyses Loadings.

Construct	Items	Loading	Construct	Items	Loading
Store Attributes	SA1	0.730	**Price (Discount, seasonal sale offer etc.)**	P1	0.616
	SA2	0.769		P2	0.726
	SA3	0.815		P3	0.830
	SA4	0.804		P4	0.759
Shopping Services	SS1	0.723	**Customer Attitude**	SP2	0.683
	SS4	0.660		SP5	0.696
	SS5	0.847		SP6	0.721
	SS6	0.793		SP7	0.879
Customer Buying Behavior	CA1	0.953		SP8	0.721
	CA2	0.792		SP9	0.716
	CA4	0.714			
	CA5	0.941			
	CA6	0.968			

4.4.2.1. Content validity

The content validity of the scale was duly assessed through the pilot testing with the subject experts, practitioners, and shoppers. Later, the items were modified to make statements conceivable to respondents that further checked the face or content validity (Kaplan & Sacuzzo, 1993; Churchill, 1992; Saraph, Benson, & Schroeder, 1989).

4.4.2.2. Convergent validity

The estimates of the standardized loading were more than 0.7 threshold (Hair, Black, Babin, Anderson, & Tatham, 2006) for all the scale items and Average Variance Extracted (AVE ≥ .5) was ranging from all the items (Fornell & Lacker, 1981; Hair, Black, Anderson, & Tatham, 2008). Therefore, the scale has convergent validity.

4.4.2.3. Discriminant validity

The results in Table: 4.6.6.Showed that the Average Variance Extracted (AVE) values are greater than the squared correlations for each pair of the constructs. It indicates the scale has discriminant validity (Fornell and Larcker, 1981).

4.4.2.4. Nomological validity

The correlations between each pair of constructs were significant ($p < .01$) and it indicated that the scale of online shopping has Nomological validity according to the (Churchill, 1992).

4.4.1.5. Construct validity

The scale of online shopping has construct reliability, convergent validity, discriminant validity and Nomological validity. Therefore, the scale of online shopping has construct validity too (Churchill, 1992; Gerbing and Anderson, 1988; Hair et al., 2006).

Table: 4.6.5.Composite Reliability (CR), Average Variance Extracted (AVE)

Construct	CR	AVE
Customer Attitude	0.88	0.546
Store Attributes	0.86	0.608
Price (Discounted)	0.82	0.543
Shopping Services	0.84	0.576
Customer Buying Behavior	0.94	0.644

The Table 4.6.5 indicates the composite reliability of the constructs and average variance extracted of all five variables and construct validity.

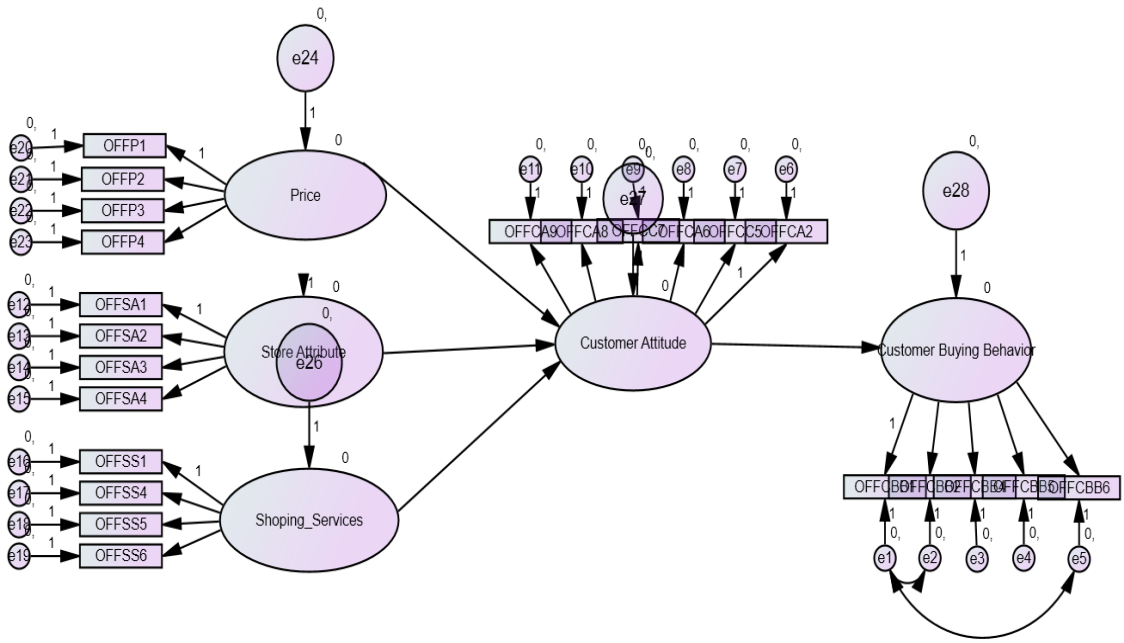
Table: 4.6.6. Maximum Shared Variance, Average Shared Variance & Correlation Matrix

Construct	MSV	ASV	1	2	3	5	6
Customer Buying Behavior[1]	0.20	0.09	**0.80**				
Customer Attitude[2]	0.20	0.14	.422	**0.74**			
Store Attributes[3]	0.14	0.09	.181	.298	**0.78**		
Shopping Service [4]	0.14	0.08	.285	.257	.319	**0.76**	
Price[5]	0.16	0.08	.182	.346	.234	.166	**0.74**

- MSV & ASV should be less than AVE.
- Square of AVE should be greater than correlation Loadings of other constructs

The Table 4.6.6 depicts the maximum shared variance and correlation matrix of online shopping. The correlation matrix is related to the Convergent and Discriminant validity of the constructs. The Maximum Shared Variance and Average Shared Variance should be less than average variance extracted of the construct and square of average variance extracted should be greater than correlation loadings of other constructs.

Figure: 4.5. Offline Shopping Mediation Assumption Model



According to McKinnon; Shrout& Bolger; Significance of the indirect path is sole criteria for mediation test.

Table: 4.6.7. Offline Shopping Mediation Assumption Model

Relation	Estimate	P-Value	R^2
Price →CA	.325	.001	0.378
SA →CA	.228	.001	
SS→CA	.176	.002	
CA→ CBB	.436	.001	
Price → CA→ CBB	.142	.001	0.035
SA→ CA→ CBB	.077	.001	
SS→ CA→ CBB	.099	.003	
Model fit indices: $\chi 2$ = 1271.970; df =224; p-value =0.000; GFI = 0.928; CFI = 0.918; NFI = 0.902; RFI = 0.907; IFI = 0.918; TLI = 0.908; RMSEA = 0.074.			

The abbreviation of above Table 4.6.7.: P = .000; dfdegrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA=Customer attitude, P= price, SA= Store Attributes, CA= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services offered by offline retailer

Detailed differences between assumption models were shown in table no. 4.6.7. Here, p-values of independent variable were considered to identify statistical significance. Direct effect between independent variables price, Store Attribute, and Shopping Services, relationship with the Customer Attitude were identified significant. And indirect effects of independent variable price, Store Attribute, Shopping Services and Customer Attitude relationship with Customer Buying Behaviour in assumption model were identified significant. Model fit indices: $\chi 2$ = 1271.970; DF =224; p-value =0.000; GFI = 0.928; CFI = 0.918; NFI = 0.902; RFI = 0.907; IFI = 0.918; TLI = 0.908; RMSEA = 0.074.

Figure: 4.6. Final Model of Offline Shopping Mediation.

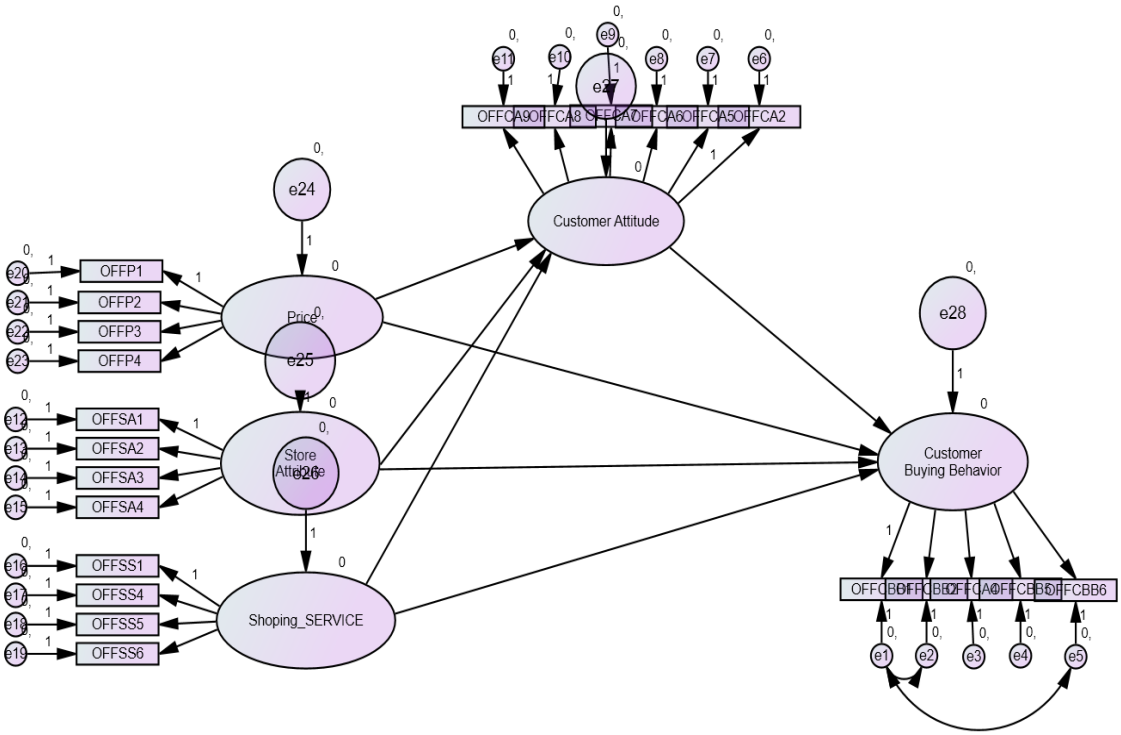


Table: 4.6.8. Offline Shopping Mediation Final Model.

Relation	Estimate	P-Value	R^2
Price→ CA	.325	.001	0.322
SA → CA	.228	.000	
SS→ CA	.168	.000	
CA→ CBB	.370	.003	
Price→ CBB	.022	.651	0.055
SA→ CBB	.006	.896	
SS→ CA	.171	.000	
Price → CA→ CBB	.120	.000	
SS→ CA→ CBB	.062	.002	
SA→ CA→ CBB	.084	.001	

Model fit indices: $\chi 2$ = 1250.505; df =221; p-value =0.000; GFI = 0.902; CFI = 0.916; NFI = 0.900; RFI = 0.923; IFI = 0.916; TLI = 0.904; RMSEA = 0.072.

The abbreviation of above Table 4.6.8.: P = .000; degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CA= Customer Buying Behavior in offline shopping, and finally, SS= Shopping Services offered by offline retailer

Here, p-values of independent variable were considered to identify statistical significance. Direct effect between independent variables price, Store Attribute, Shopping Services relationship with Customer Attribute were found to be significant and Customer Attitude relationship with Customer Buying Behaviour was also identified to be significant. Whereas, price, Store Attribute relationship with Customer Buying Behaviour were identified to be insignificant and SS relationship with Customer Attitude was found significant. Indirect effect of Price, Store Attribute, and Customer Attitude relationship with Customer Buying Behaviour were found to be significant. Model fit indices: $\chi 2 = 1250.505$; DF =221; p-value =0.000; GFI = 0.902; CFI = 0.916; NFI = 0.900; RFI = 0.923; IFI = 0.916; TLI = 0.904; RMSEA = 0.072

4.4.4.6. Hypotheses Testing Results

Table: 4.6.9. Offline Shopping Meditation Hypotheses Summary

S. No	Hypotheses	Decision
H_1	There is a significant relationship between Price and customer attitude	Supported
H_2	There is a significant relationship between Store Attributes and customer attitude	Supported
H_3	There is a significant relationship between Shopping Service and customer attitude	Supported

H_4	There is a significant relationship between customer attitude and customer buying behavior towards offline shopping	Supported
H_5	There is a significant relationship between price and customer buying behavior towards offline shopping	Not Supported
H_6	There is a significant relationship between Store Attributes and customer buying behavior towards offline shopping	Not Supported
H_7	There is a significant relationship between customer attitude and customer buying behavior towards offline shopping	Supported
H_8	Relationship between Price and customer buying behavior is mediated by customer attitude	Supported
H_9	The relationship between Shopping Services and customer buying behavior is mediated by customer attitude.	Supported
H_{10}	Relationship between Store Attributes and customer buying behavior is mediated by customer attitude	Supported

4.4.3. Moderator Analyses of Offline Shopping.

H_0: There is no effect of gender as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

H_1: Gender significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behaviour in Offline shopping.

Table: 4.7. Chi-square difference test for Gender

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1650.00	51.20	444	30
Constrained Model	1701.20		474	

Chi-square difference value 51.20 with DF = 30 is observed from table no. 4.7. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. The chi-square table value for DF = 30 at 0.05 level of significance is 43.77. This indicates the calculated value is less than table value and falls into accepted region. Therefore, we may reject null hypothesis and conclude that there is a significant relationship between the gender group of male and female of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.1. Gender as Moderator

	Male		Female	
Relation	Estimate	P-Value	Estimate	P-Value
Price→ CA	.331	.000	.284	.001
SA→CA	.219	.002	.270	.003
SS→CA	.140	.025	.214	.002
CA→ CBB	.370	.001	.380	.002
Price→ CBB	.028	.618	.024	.740
SA→ CBB	.028	616	-.060	.381
SS→ CBB	.136	.012	.244	.001
Price →CA→ CBB	.122	.010	.108	.172
SS→CA→ CBB	.052	.000	.081	.000
SA→CA→CBB	.081	.040	.103	.631

Model fit indices: $\chi 2$ = 1600.922; DF = 442; p-value = 0.000; GFI = 0.925; CFI = 0.904; NFI = 0.902; RFI = 0.914; IFI = 0.904; TLI = 0.907; RMSEA = .055.

Male: R^2 = 0.177 (CA), R^2 = 0.181 (CBB); **Female:** R^2=0.199 (CA), R^2=0.236 (CBB).

Abbreviations of above table 4.7.1.: P = .000; df degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services for the offline product.

Detailed differences between genders (male and female) were shown in table no. 4.7.1. Here, p-values of genders (male and female) were considered to identify statistical significance. Direct effect between independent variables Price, Store attributes, Services offered by offline retailer with customer attitude has statistical significance on gender of respondents. Direct effect between prices, relationship with Customer Buying Behaviour has statistical significant, Shopping Service, Store Attribute, and Customer Attitude were identified to be insignificant for gender. Whereas, all three independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for gender of respondents. Indirect effect of price → Store Attribute→ Customer Buying Behaviour → Shopping Services →Customer Attitude → Customer Buying Behaviour were identified to have significant relationship with gender of respondents. Whereas, Shopping Services→ Customer Attitude→ Customer Buying Behaviour were identified to have significant relationship on gender of respondents. Model fit indices $\chi 2$ = 1600.922; DF = 442; p-value = 0.000; GFI = 0.925; CFI = 0.904; NFI = 0.902; RFI = 0.914; IFI = 0.904; TLI = 0.907; RMSEA = .055.

H_0: There is no effect of Age as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior in offline shopping.

H_2: Age significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

Table: 4.7.2.1. Chi-square difference test for Age

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1571.634	67.082	442	30
Constrained Model	1638.716		472	

Chi-square difference value 67.082 with DF = 30 is observed from table no. 4.7.2. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Chi-square table value for DF = 30 at 0.05 level of significance is 43.77. This indicates the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is a relationship between the age group of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.2.1. Age as Moderator

	Less than 25 years		Above 25 years	
Relation	Estimate	P-Value	Estimate	P-Value
Price→ CA	.380	.000	.261	.002
SA→ CA	.206	.001	.236	.001
SS→ CA	.129	.013	.206	.001
CA→ CBB	.352	.000	.383	.000
Price→ CBB	.027	.615	.024	.647
SA→ CBB	.053	.296	-.056	.258
SS→ CBB	.139	.006	.204	.000
Price → CA→ CBB	.134	.000	.100	.003

SS→ CA→ CBB	.045	.072	.079	.000
SA→ CA→CBB	.072	.004	.090	.001

Model fit indices: $\chi 2 = 1571.634$; DF = 442; p-value = 0.000; GFI = 0.905; CFI = 0.907; NFI = 0.926; RFI = 0.917; IFI = 0.907; TLI = 0.893; RMSEA = .055.

Less than 25 years of Age: $R^2 = 0.203$ (CA), $R^2 = 0.171$ (CBB); **above 25 years of Age:** $R^2=0.166$ (CA), $R^2=0.216$ (CBB).

Abbreviations of above Table: 4.7.2.1. : P = .000; dfdegrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior in offline shopping, and finally, SS= Shopping Services offered by offline retailer

P-values of less than 25 years and above 25 year's Age group of respondents were considered to identify statistical significance. Direct effect between independent variables Price, Store attribute, services offered by offline retailers with customer attitude has statistical significance for less than 25 years and above 25 year's Age group of respondents. For the less than 25 years of age group the relationship between services offered by offline retailers and attitude were found to be insignificant. Direct effect between prices, relationship with Customer Buying Behaviour has statistical significance. All three independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour for gender group of male and female. Indirect effect of price →Customer Attitude → Customer Buying Behaviour→ Shopping Services →Customer Attitude → Customer Buying Behaviour were identified to have statistically significant relationship for gender group of male and female, whereas, SS→ Customer Attitude → Customer Buying Behaviour were identified to have insignificant relationship for less than 25 years of age group model fit indices $\chi 2 = 1571.634$; df = 442; p-

value = 0.000; GFI = 0.905; CFI = 0.907; NFI = 0.926; RFI = 0.917; IFI = 0.907; TLI = 0.893; RMSEA = .055.

H_0: There is no effect of Income as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior in offline shopping.

H_3: Income significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior in offline shopping.

Table: 4.7.3. Chi-square difference test for Income

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1561.462	69.152	444	30
Constrained Model	1630.614		474	

Chi-square difference value 69.152 with DF = 30 is observed from table no. 4.7.3. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 30 at 0.05 level of significance 43.77. This indicates the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is a difference between the income group of (Below Rs.25000 above Rs, 25000) of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.3.1. Income as Moderator

	Below 25000		Above 25000	
Relation	Estimate	P-Value	Estimate	P-Value
Price→CA	.398	.000	.251	.000
SA→CA	.257	.000	.174	.000
SS→CA	.080	.097	.279	.000
CA→ CBB	.399	.000	.368	.000
Price→ CBB	-.054	.318	.081	.127
SA→ CBB	-.023	.627	.045	.387
SS→ CBB	.220	.001	.104	.053
Price → CA→ CBB	.159	.000	.092	.001
SS→ CA→ CBB	.032	.196	.102	.000
SA→ CA→ CBB	.102	.000	.064	.014

Model fit indices: $\chi 2$ = 1539.466; DF = 442; p-value = 0.000; GFI = 0.927; CFI = 0.909; NFI = 0.937; RFI = 0.919; IFI = 0.909; TLI = 0.915; RMSEA = .054.

Less than 25000 of Income: R^2 = 0.230 (CA), R^2 = 0.247 (CBB); **above 25000 of Income:** R^2=0.171 (CA), R^2=0.177 (CBB).

Abbreviations of the above Table 4.7.3.1.: P = .000; df degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services offered by offline retailer

Detailed differences between income levels of Less than Rs.25, 000 and above Rs.25000 (Income groups of respondents) were shown in table no. 4.7.3.1. Here, p-values of less than Income group of respondents (Rs. 25, 000 and above Rs. 25, 000) were considered to identify statistical significance. Direct effect between independent variables Price, Store attribute, retailer services and customer attitude has statistical significance on (less than 25000 and above

25000) Income group of respondents. For the income group of less than Rs. 25,000/ per month the relationship between services offered by offline retailers and customer attitude was found to be identified insignificant. Direct effect between prices, relationship with Customer Buying Behaviour has statistical significance, Shopping Services, Store Attribute, Price and Customer Buying Behaviour, were identified to be insignificant for income groups having less than Rs.25000 per month. Shopping Services with Customer Buying Behaviour were identified to be insignificant for income groups of income above Rs.25, 000/- per month. Whereas, all three independent variables were observed to have insignificant direct relationship with Customer Buying Behaviour with respect to income group of respondents. Indirect effect of price → Customer Buying Behaviour→ was identified to have statistically significant relationship for income group of respondents and Shopping Services, Store Attribute and Customer Buying Behaviour were identified to be insignificant for below Rs.25, 000 income levels and for above Rs.25, 000 income group were identified to be significant. Store Attribute → Customer Attitude → Customer Buying Behaviour were identified to have significant relationship for less than Rs. 25, 000 income and was identified insignificant for above 25000 of income group. Model fit indices: $\chi 2 = 1539.466$; DF = 442; p-value = 0.000; GFI = 0.927; CFI = 0.909; NFI = 0.937; RFI = 0.919; IFI = 0.909; TLI = 0.915; RMSEA = .054.

H_0: There is no effect of Education as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

H_4: Education significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

Table: 4.7.4. Chi-square difference test for Education

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1512.983	44.99	440	30
Constrained Model	1557.973		470	

Chi-square difference value 44.99 with DF = 30 is observed from table no. 4.7.4. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 30 at 0.05 level of significance is 43.77. This indicates that the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is a difference between the education group up to UG and PG & above of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.4.1.Education as Moderator

	Up to UG		PG & Above	
Relation	Estimate	P-Value	Estimate	P-Value
Price→ CA	.373	.000	.311	.000
SA→ CA	.125	.098	.281	.000
SS→ CA	.220	.015	.125	.050
CA→ CBB	.468	.000	.335	.000
Price→ CBB	-.041	.550	.040	.479
SA→ CBB	-.028	.730	.020	.682
SS→ CBB	.170	.056	.172	.000
Price → CA→ CBB	.175	.000	.104	.000
SS→ CA→ CBB	.103	.008	.042	.040
SA→ CA→ CBB	.059	.064	.094	.000

Model fit indices**:** $\chi 2$ = 1542.457; DF = 442; p-value = 0.000; GFI = 0.919; CFI = 0.908; NFI = 0.917; RFI = 0.929; IFI = 0.909; TLI = 0.915; RMSEA = .054.

Up to UG of Education: R^2 = 0.203 (CA), R^2 = 0.295 (CBB); **PG and above of Education:** R^2=0.191 (CA), R^2=0.165 (CBB).

Abbreviations of the above Table: 4.7.4.1.: P = .000; dfdegrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI- Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services offered by offline retailer.

Detailed differences between up to UG and PG & above education group of respondents were shown in table no. 4.7.4.1. Here, p-values of up to UG and PG & above education group of respondents were considered to identify the statistical significance. Direct effect between independent variables Price, relationship with perception and attitude has statistical significance for up to UG and PG and above whereas, Store Attribute, relationship Customer Attitude for PG and above were identified insignificant. Store Attribute, Shopping Services, relationship with perception and attitude were identified insignificant for up to UG and PG and above of education and Shopping Services relationship with Customer Buying Behaviour for PG and above were identified significant. Price and Customer Attitude relationship with Customer Buying Behaviour were identified significant and remaining independent variables were observed to have insignificant indirect relationship with Customer Buying Behaviour for education up to UG and PG and above of respondents. Model fit indices Model fit indices: $\chi 2$ = 1542.457; DF = 442; p-value = 0.000; GFI = 0.919; CFI = 0.908; NFI = 0.917; RFI = 0.929; IFI = 0.909; TLI = 0.915; RMSEA = .054.

H_0: There is no effect of marital status as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

H_5: Marital Status significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

Table: 4.7.5. Chi-square difference test for Marital Status

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1471.536	57.674	442	30
Constrained Model	1529.21		472	

Chi-square difference value 57.674 with DF = 30 is observed from table no. 4.7.5. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Chi-square table value for DF = 30 at 0.05 level of significance is 43.77. This indicates that the calculated value is greater than table value and falls into rejection region. Therefore, we may reject null hypothesis and conclude that there is a relationship between the marital status group married and un-married of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.5.1. Marital Status as Moderator

	Married		Un-Married	
Relation	Estimate	P-Value	Estimate	P-Value
Price→ CA	.234	.000	.364	.000
SA→ CA	.221	.009	.228	.000
SS→ CA	.217	.014	.154	.015
CA→ CBB	.316	.000	.393	.000
Price→ CBB	.016	.886	.027	.681
SA→ CBB	.005	.837	.005	.885
SS→ CBB	.221	.000	.136	.016
Price → CA→ CBB	.074	.000	.143	.000

SS→ CA→ CBB	.069	.009	.061	.010
SA→ CA→ CBB	.070	.006	.090	.000

Model fit indices $\chi 2$ = 1487.223; DF = 442; p-value = 0.000; GFI = 0.902; CFI = 0.913; NFI = 0.917; RFI = 0.916; IFI = 0.913; TLI = 0.900; RMSEA = .052.

Married: R^2 = 0.150 (CA), R^2 = 0.164 (CBB); **UN-Married:** R^2=0.208 (CA), R^2=0.205 (CBB).

Abbreviations of the above Table 4.7.5.1.: P = .000; dfdegrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services offered by offline retailer.

Detailed differences between marital status (married and un-married) of respondents were shown in table no. 4.7.5.1. Direct effect between independent variables Price, relationship with perception and attitude has statistical significance with respect to marital status of respondents. Whereas, the relationship between Store Attribute, Customer Attitude for married respondents was identified to be significant. Whereas, Store Attribute, Customer Attitude, relationship with customer buying behaviour was identified to be insignificant. The relationship between Customer Attitude and Customer Buying Behaviour was identified to be significant for both married and un-married respondents. The relationship of price with Customer Buying Behaviour was identified insignificant and the relationship of Store Attribute with Customer Buying Behaviour was identified to be significant for both married and un-married respondents. Shopping Services relationship with Customer Buying Behaviour for married respondents was identified to be significant and for un-married the relationship was insignificant. And finally, Store Attribute, Customer Attitude relationship with Customer

Buying Behaviour was identified significant for married and for un-married it was identified as insignificant. Model fit indices Model fit indices $\chi 2 = 1487.223$; DF = 442; p-value = 0.000; GFI = 0.902; CFI = 0.913; NFI = 0.917; RFI = 0.916; IFI = 0.913; TLI = 0.900; RMSEA = .052.

H_0: There is no effect of occupation as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

H_6: Occupation significantly moderates the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

Table: 4.7.6. Chi-square difference test for Occupation

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1499.844	108.841	440	30
Constrained Model	1608.685		470	

Chi-square difference value 108.841with DF = 30 is observed from table no. 4.7.6. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. The chi-square table value for DF = 30 at 0.05 level of significance is 43.77. This indicates that the calculated value is greater than table value and falls into rejection region. Therefore, we reject null hypothesis and conclude that there is a relationship between the occupations of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.6.1. Occupation as Moderator

	Employees: Private/Public		Non-Employee: Business/ self employed	
	Estimate	P-Value	Estimate	P-Value
Price→ CA	.314	.000	.345	.000
SA→ CA	.198	.002	.326	.000
SS→ CA	.180	.001	.170	.011
CA→ CBB	.388	.000	.309	.000
Price→ CBB	0.19	.708	.052	.473
SA→ CBB	-.027	.563	.133	.070
SS→ CBB	.162	.000	.187	.006
Price → CA→ CBB	.122	.000	.107	.000
SS→ CA→ CBB	.070	.000	.052	.033
SA→ CA→ CBB	.077	.000	.101	.008

Model fit indices: $\chi 2$ = 1581.453; DF = 442; p-value = 0.000; GFI = 0.903; CFI = 0.907; NFI = 0.913; RFI = 0.902; IFI = 0.908; TLI = 0.912; RMSEA = .055.

Employee: R^2 = 0.170 (CA), R^2 = 0.239 (CBB); **Non-Employees:** R^2=0.254 (CA), R^2=0.175 (CBB).

Abbreviations of the above Table 4.7.6.1.: P = .000; df- degrees of freedom, GFI-Goodness of Fit, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping Services for the offline product.

Detailed differences occupation status of respondents were shown in table no. 4.7.6.1. Here, p-values of employee and non-employee of occupation of the respondents were considered to identify statistical significance. Direct effect between independent variables Price, Store Attribute, and Shopping Services relationship with perception and attitude has statistical

significance for both employee and non-employees. Shopping Services relationship with Customer Attitude was identified to be insignificant for non-employees in direct effect. Customer Attitude's relationship with Customer Buying Behaviour is significant for employees and non-employees. Price and Store Attribute relationship with Customer Buying Behaviour was identified insignificant and Shopping Services relationship with Customer Buying Behaviour was identified to be significant for employees and insignificant for non-employees. Whereas, indirect effects price, Shopping Services, Store Attribute, and Customer Attitude relationship were identified significant for employees and Shopping Services, Store Attribute, and Customer Attitude were identified insignificant for non-employees. Model fit indices Model fit indices: $\chi 2$ = 1581.453; DF = 442; p-value = 0.000; GFI = 0.903; CFI = 0.907; NFI = 0.913; RFI = 0.902; IFI = 0.908; TLI = 0.912; RMSEA = .055.

H_0: There is no effect of payment methods as moderator for relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

H_7: Payment method significantly moderate the relationship between Store Attributes, Price, Shopping Services, customer attitude and customer buying behavior towards offline shopping.

Table: 4.7.7. Chi-square difference test for Payment Methods

	Chi-square	Chi-square difference	Df	Df difference
Configural Model	1742.625	69.818	660	60
Constrained Model	1812.443		720	

Chi-square difference value 69.818 with DF = 60 is observed from table no. 4.7.7. Difference of chi-square and degrees of freedom values are actual difference between constrained and configural models. Whereas, Chi-square table value for DF = 60 at 0.05 level of significance

is 79.082. This indicates that the calculated value is less than table value and falls into acceptance region. Therefore, we may accept null hypothesis and conclude that there is no difference between the Cash on Delivery, Debit/credit card and Net-Banking of payments methods of respondents in estimating the direct and indirect paths of the model.

Table: 4.7.7.1. Payment Method as Moderator

	Debit/Credit Card		Net/Mobile-Banking		Cash on Delivery	
Relation	Estimate	P-Value	Estimate	P-Value	Estimate	P-Value
Price→ CA	.416	.016	.316	.000	.257	.000
SA→ CA	.219	.033	.238	.000	.217	.002
SS→ CA	.023	.858	.246	.001	.246	.001
CA→ CBB	.410	.079	.341	.002	.370	.000
Price→ CBB	.012	.998	.042	.483	-.007	.927
SA→ CBB	-.078	.318	.101	.082	-.022	.751
SS→ CBB	.235	.010	.143	.015	.122	.083
Price →CA→CBB	.171	.053	.108	.011	.095	.019
SA→ CA→ CBB	.009	.857	.084	.007	.091	.000
SS→ CA→ CBB	.090	.032	.081	.013	.080	.019

Model fit Indices: $\chi 2$ = 1787.224; DF = 663; p-value = 0.000; GFI = 0.920; CFI = 0.907; NFI = 0.909; RFI = 0.920; IFI = 0.907; TLI = 0.903; RMSEA = .044.

Cash on Delivery: R^2 = 0.173 (CA), R^2 = 0.176 (CBB); **Debit/Credit cards:** R^2 = 0.221 (CA), R^2 = 0.266 (CBB); **Net/Mobile Banking**: R^2=0.217 (SP), R^2=0.173 (CBB).

Abbreviations of the above Table: 4.7.7.1. P = .000; df degrees of freedom, GFI-Goodness of Fit Index, RMSEA-Root Mean Square Error of Approximation; NFI-Normed Fit Index; RFI-Relative Fit Index, CFI - Comparative Fit Index; TLI Tucker- Lewis Index, AGFI-Adjusted Goodness of Fit; PNFI-Parsimonious Normed Fit Index.

CA= Customer Attitude, P= Price, SA= Store Attributes, CBB= Customer Buying Behavior towards shopping, and finally, SS= Shopping services for the offline product.

Detailed differences between payments methods of respondents were shown in table no. 4.7.7.1. Here, p-values of various methods of payment (cash on delivery, debit/credit card and Net/ mobile banking of payments methods) used by the respondents were considered to identify statistical significance. Direct effect between various independent variables Price, Store Attribute, and Shopping Services and customer attitude has no statistical significance for debit and credit card of payments methods whereas, price, Store Attribute, and Shopping Services relationship with customer attitude for cash on delivery and net/mobile banking mode of payments was identified to be statistically significant. The direct relationship between Customer Attitude, price, Shopping Services, Store Attribute, relationship with Customer Buying Behaviour was identified to be insignificant for cash on delivery, debit/credit card and net/mobile banking expect Customer Attitude relationship with Customer Buying Behaviour in case of net/mobile banking which is significant. Indirect effects were also observed for price, Shopping Services, Store Attribute, Customer Attitude relationship with Customer Buying Behaviour and were identified as insignificant for cash on delivery, credit /debit card and net/mobile banking expect net/mobile banking which was identified as significant. Model fit Indices: $\chi 2$ = 1787.224; DF = 663; p-value = 0.000; GFI = 0.920; CFI = 0.907; NFI = 0.909; RFI = 0.920; IFI = 0.907; TLI = 0.903; RMSEA = .044.

4.5 CHAPTER CONCLUSION

This chapter presented the analysis results of the study, i.e., descriptive statistics, assumptions of the study, socio-demographic and usage characteristics of the respondents, Online and offline shopping scale development and validation, mediation analysis, moderation analysis, and comparison of means regarding demographics and usage characteristics of the customer. The next chapter discusses the results, conclusion, implications, limitations of the study and future direction for the research.

5. INTRODUCTION

The primary objective of this study is to determine the factors affecting customer choice of shopping between offline and online channels in the Indian context. The study explores the major underlying factors of online and offline shopping. One of the specific purposes of this study is to develop and validate the constructs of both online and offline shopping in the Indian context. This study is expected to add significant value to the body of the knowledge by establishing the reliability and validity of the constructs, scale items which can be used for assessing of customer choice of shopping in both the formats of online and offline shopping in India. As far as online shopping is considered from customers' point of view, factors such as the quality of the products, data privacy, timely delivery of the products, and authenticity of information available about the products/services on the website are some of the critical factors. Moreover, it was also found that cash on delivery mode of payment is more comfortable to the customers for purchases made through online shopping. The measurement scale of (online and offline shopping) has been purified for the future analyses, and the statistical analysis was carried out.

The study has developed online and offline shopping measurement scales in the Indian context, and with a sample size of 860 has examined its reliability (construct reliability) and validity (content, convergent, discriminant, Nomological validity). Scale for determining customer preferences towards online and offline shopping, which consists of various dimensions related to price, customer attitudes towards shopping (for both the formats), the shopping channel preferences, product delivery, store attributes and shopping services. After the rigorous exploratory and confirmatory factor analysis, the purified scale of items obtained can be considered as a reliable and valid scale for the

subsequent analysis. The study which captures the viewpoint of the customer can open up new avenues for the organizations to improve ease of shopping in the Indian context.

5.1. SOCIO-DEMOGRAPHIC AND USAGE CHARACTERISTICS OF ONLINE AND OFFLINE SHOPPING

This section discusses the socio-demographic and usage features of online and offline shopping in five metro cities in India. A valid sample size of 860 was used to develop and validate the scales and measurement models. The description of the sample profiles is given as follows.

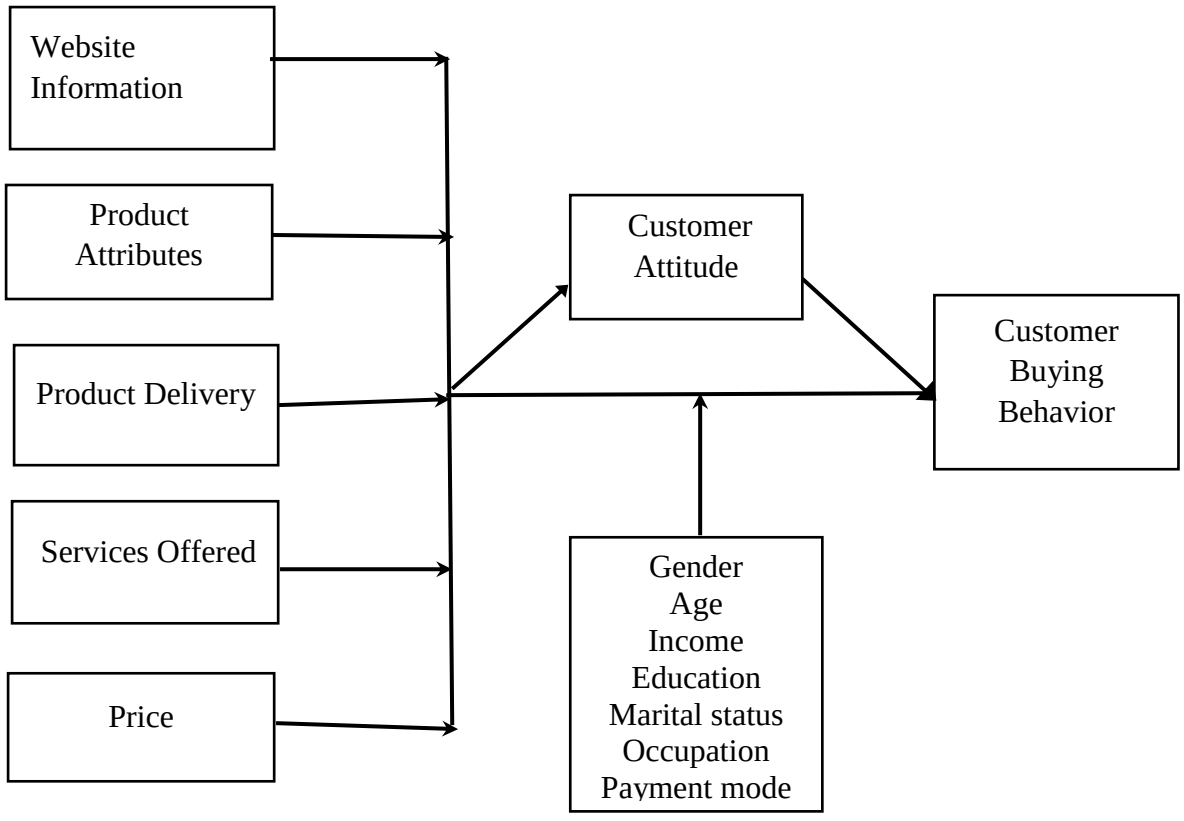
5.1.1. Demographic Characteristics of the Respondents

The sample consist of male 634 (73.7%) and female 226 (26.3%) respondents. Most of the respondents were in the age group of 18 to 25years 418 (48.6%), followed by 26-30 years 371 (43.1%) and 31-40 years 64 (7.4%). The highest age group of respondents was 41-50 years with least number of respondents i.e., 7 (.8 %). Most respondents had Master's Degree 525 (61.0%) followed by Graduation 263 (30.6%). The highest qualified respondents were MPhil / Ph.D 60 (7.0%). The lowest qualified respondents were SSC 3 (.3%). Private employees were the primary respondents 627 (72.9%) followed by own business people 155 (18.0%) and self-employed 59 (6.9%). The least respondent category was the Government employees 19 (2.2%). The Unmarried respondents were 591 (68.7%), and the married 269 (31.3%). Approximate monthly income of respondents was considered in demographic characteristic. The spread of respondents were 15001-25000 417 (48.5%); 25001, -35000, 282 (32.8%) and 35001 – 45000 56 (6.5%). The lowest income category respondents were 5000-15000, 51 (5.9%).

Another categorization variable used is how long respondents have been using Internet. The spread is 1-5 Year 464 (54.0%) followed by 5-10 year 313 (36.4%) and less than

one year were 77 (9 .0%). The least number of respondents is for the category above ten years 6 (.7%). The devices preferred by the respondents for shopping are Desktop 449 (52.2%) followed by Laptops 319 (37.1%) and Mobile/Smartphone 92 (10.7%). Customer average time of using the Internet during a day is also captured to know about customer activeness in using the Internet. Most of the respondents were using the internet for more than 4 Hours 284 (33.0%) in a day followed by > 30 Min<= 1 Hour 271 (31.5%) and 3-4 Hours 170 (19.8%), and least respondents were 1-2 Hours and minimum 30 minutes 122 (14.2%), 13 (1.5%) respectively. Finally, the type of internet connection is also captured to know the speed of Internet used during the customer shopping. Most of the respondents were using Broadband 506 (58.8%) followed by Mobile data 201 (23.4%) and least respondents were using Wi-Fi 153 (17.8%) to complete their regular shopping.

Figure: 5.1 THEORETICAL MODEL OF ONLINE SHOPPING



The study examined the structural relationship between product information and customer buying behavior towards online shopping in the presence of mediating variables (customer attitude). Based on the theoretical support, the study developed a parallel mediation model. The measurement model was tested for its reliability and validity of both online shopping channel in the Indian context and found that the model is fit for further analysis. The results of the measurement models revealed that information, price, product attribute, services offered, product delivery, and shopping preference are mediated by both independent and outcome variables (customer attitude towards online shopping). The results of mediation models are discussed as follows**.**

5.2. MEDIATION EFFECT

In this step, the study examined the parallel mediation effect of information, price, product attributes, services offered and product delivery mediated by shopping preference on customer attitude towards online shopping. All the paths were significant in parallel meditation. All the direct effects and indirect effects were significant. The results revealed that website information and customer buying behaviour partially mediates the relationship between price, product attribute, services offered, and product delivery respectively. Since, both the direct and indirect effects were significant, it was found that information, price, product attribute, services offered and product delivery mediated by customer attitude have partial mediation effect on the relationship between information and Customer attitude towards online shopping. The indirect effect of information on customer attitudes mediated by shopping preference is .131 and the direct effect of information on Customer attitude is .144 in the direct model. The indirect effect of price on customer attitude mediated by shopping preference is .041 and the direct effect of price on customer attitude is .155. The indirect effect of product attribute on customer attitude mediated by shopping preference is .109 and the direct

effect of product attribute on customer attitude is .059. The indirect effect of services offered on customer attitude mediated by shopping preference is .025 and the direct effect of service provided on customer attitude is .065. The indirect effect on product delivery on customer attitude is .195 and the direct effect of product delivery on customer attitude towards online shopping is .078 and the mediated variable by the shopping preference direct effect on customer attitude is .465.

Table: 5.1. ONLINE SHOPPING MEDITATION HYPOTHESES RESULTS

S. No	Hypotheses	Decision
H_1	There is a significant relationship between website information and customer attitude.	Supported
H_2	There is a significant relationship between product attributes and customer attitude.	Supported
H_3	There is a significant relationship between product delivery and customer attitude	Supported
H_4	There is a significant relationship between Price and customer attitude	Supported
H_5	There is a significant relationship between services offered by online retailer and customer attitude	Not Supported
H_6	There is a significant relationship between website information and customer buying behavior.	Supported
H_7	There is a significant relationship between product attributes and customer buying behavior towards online shopping	Not Supported
H_8	There is a significant relationship between product delivery and customer buying behavior towards online shopping	Not Supported
H_9	There is a significant relationship between price and customer buying behavior towards online shopping	Supported
H_{10}	There is a significant relationship between services offered by online retailers and customer buying behavior towards online shopping	Not Supported

H_{11}	There is a significant relationship between customer attitude and customer buying behavior towards online shopping	Supported
H_{12}	Relationship between website information and customer buying behavior mediated by customer attitude	Supported
H_{13}	Relationship between Product attribute and customer buying behavior mediated by customer attitude	Supported
H_{14}	Relationship between Product delivery and Customer buying behavior mediated by customer attitude	Supported
H_{15}	Relationship between Price and customer buying behavior is mediated by customer attitude	Not Supported
H_{16}	Relationship between Services offered and customer buying behavior is mediated by customer attitude	Supported
H_{17}	There is a significant difference in preference towards online shopping between male and female customers.	Not Supported
H_{18}	There is a significant difference in preference towards online shopping across customers of different age groups.	Not Supported
H_{19}	There is a significant difference in preference towards online shopping among customers with different levels of education	Not Supported
H_{20}	There is a significant difference in preference towards online shopping among customer belonging to different income levels.	Not Supported

5.3. MODERATION ANALYSIS

The study examined the structural relationship between website information, price, product delivery, customer attitude, customer buying behavior, services offered by online retailers, and product attributes with seven moderating variables which were classified as follows:

- Gender (Male and Female)
- Age (Below 25 years and Above 25 years)
- Marital Status (Married and unmarried)
- Education (Up to UG, PG, and Above)

- Occupation (Employees: Private/Public and Non-Employee: Business/ Self-employed)
- Income (Below 25000 and Above 25000)
- Payment Methods (Net-Banking, Cash on Delivery, and Debit/Credit card)

The results of moderation analysis measured based on the chi-square table value have been considered to test the hypothesis and accept or reject the hypothesis.

Table: 5.2. Online Shopping Moderation Hypothesis Results

H_1	Gender has significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported
H_2	Age has significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported
H_3	Education has significantly moderated the relationship between website information, Product Attribute, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported
H_4	Marital Status has significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported
H_5	Income has significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported

H_6	Occupation has significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Supported
H_7	Payment Methods have significantly moderated the relationship between website information, Product Attributes, Price, Services offered, customer attitude and Product Delivery towards customer buying behavior towards online shopping.	Not Supported

5.4 FINDINGS OF THE STUDY ON ONLINE SHOPPING

The following are the results of online shopping in Indian context based on the data were collected and analyzed from five metro cities like Hyderabad, Chennai, Mumbai Delhi and Kolkata.

- The direct effect of website information on customer attitude is significant
- The direct effect of price on customer attitude is significant
- The direct effect of product attributes on customer attitude s significant
- The direct effect of product delivery on customer attitude is significant
- The direct effect of services offered on customer attitude is not significant
- The direct effect of customer attitude on customer buying behavior is significant
- The effect of price on customer buying behavior is significant, and product attribute on customer buying behavior is insignificant
- The direct effect of services offered on customer buying behavior is insignificant
- The effect of website information mediated by customer attitude is significant
- The effect of product delivery mediated by customer attitude is significant

- The effect of price on custome buying behavior mediated by customer attitude is significant
- The effect of services offered on customer buying behavior mediated by customer attitude is insignificant
- The effect of product attribute on customer buying behavior mediated by customer attitude is significant
- The effect of gender towards online shopping is insignificant
- The effect of age towards online shopping is insignificant
- The effect of education level towards online shopping is insignificant
- The effect of income of customer towards online shopping is insignificant

5.4.1. Online Shopping: Discussion of the Findings

- Customer attitude is a critical element in the purchase process.
- The product attributes, are not very important in determining the customer buying behavior in online shopping.
- The shopping preferences has a direct effect on customer buying behavior.
- Services offered provided complemented by customer attitude has a significant influence on the customer buying.
- Online retailers should focus on improving the quality of product and timely product delivery to the customer and provide more relevant shopping services, as the low price itself may not be sustainable in the long run.

5.5. OFFLINE SHOPPING: MEDIATION EFFECTS

In this step, the study examined the parallel mediation effect for offline shopping constructs like price, store attributes, and shopping services mediated by shopping preference on customer attitude towards offline shopping. All the paths were

significant in meditation also. All the direct effects and indirect effects were significant. The results revealed that price and customer attitude partially mediates the relationship between, store attributes, and shopping service, mediated by customer attitude respectively. Since the both direct and indirect effects were significant and based on the results of bootstrap, it was found that price, store attributes, and shopping services mediated by customer attitude have partial mediation effect on the relationship between price and Customer buying behavior towards offline shopping. The indirect effect of price on customer buying behavior mediated by customer attitude is .126 and the direct effect of price on Customer buying behavior is .030 in the direct model. Moreover, the indirect effect of store attributes on customer buying behavior mediated by customer attitude is .088 and the direct effect of store attributes on customer buying behavior is .009. The indirect effect of shopping services on customer buying behavior mediated by customer attitude is .065 and the direct effect of shopping services on customer buying behavior is .227. Finally, the direct effect on customer attitude on customer buying behavior is .619.

5.5.1. Theoretical Model of Offline Shopping

Figure: 5.1 Theoretical Model of Offline Shopping

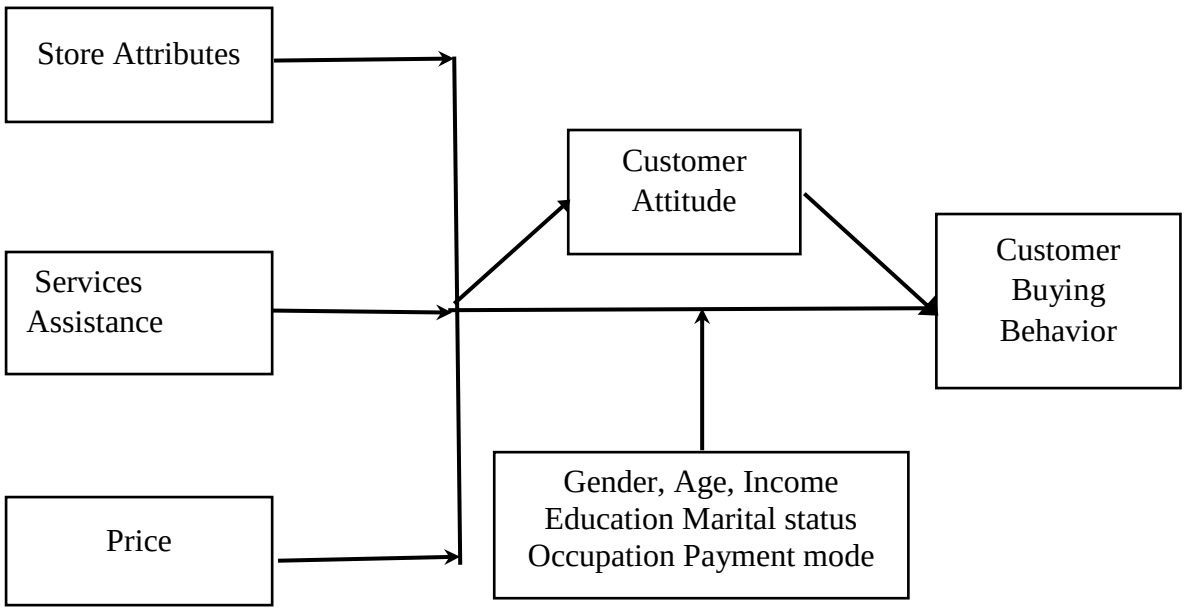


Table: 5.3. Offline Shopping Hypotheses Summary

S. No	Hypotheses	Decision
H_1	There is a significant difference between price and customer attitude	Supported
H_2	There is a significant relationship between store attribute and customer attitude	Supported
H_3	There is a significant relationship between services offered by offline retailers and customer attitude	Supported
H_4	There is a significant relationship between customer attitude and customer buying behavior towards offline shopping	Supported
H_5	There is a significant relationship between Price and customer buying behavior towards offline shopping	Not Supported
H_6	There is a significant relationship between store attributes and customer buying behavior towards offline shopping	Not Supported
H_7	There is a significant relationship between services offered in offline shopping and customer buying behavior towards offline shopping	Supported
H_8	Relationship between Price and customer attitude is mediated by customer attitude	Supported
H_9	The relationship between shopping services and customer buying behavior is mediated by customer attitude.	Supported
H_{10}	Relationship between store attribute and customer buying behavior is mediated by customer attitude	Supported

5.6. MODERATION ANALYSIS

The study examined the structural relationship between price, shopping assistances, and store attributes, customer attitude and customer buying behavior with seven moderating variables which were classified as follows:

- Gender (Male and Female)
- Age (Below 25 years and Above 25 years)
- Marital Status (Married and unmarried)
- Education (Up to UG, PG, and Above)
- Occupation (Employees: Private/Public and Non-Employee: Business/ Self-employed)
- Income (Below 25000 and Above 25000)
- Payment method (Net-Banking, Cash on Delivery, and Debit/Credit card)

The results of moderation analysis carried out based on the chi-square table values have been considered to prove the hypothesis are supported or not supported.

Table: 5.4. Offline Shopping Moderation Hypothesis Results

H_1	Gender significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported
H_2	Age significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer attitude buying behavior offline shopping.	Supported

H_3	Education significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported
H_4	Marital Status significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported
H_5	Income significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported
H_6	The occupation of shoppers significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported
H_7	Payment Methods significantly moderates the relationship between store attributes, Price, and shopping services, customer attitude towards customer buying behavior towards offline shopping.	Supported

5.7. OFFLINE SHOPPING FINDINGS

- The direct effect of price on customer attitude is significant
- The direct effect of store attribute on customer attitude is significant
- The direct effect of shopping services on customer attitude is significant
- The direct effect of customer attitude on customer buying behavior is significant
- The effect of price on customer buying behavior is insignificant, and store attribute on customer buying behavior is significant
- The direct effect of customer attitude on customer buying behavior is significant

- Customer attitude fully mediates the effect of price on customer buying behavior
- Customer attitude partially mediate the effect of shopping services on customer buying behavior
- Customer attitude fully mediate the effect of store attributes on customer buying behavior.

5.7.1. Offline Shopping: Discussion of the Findings

- Shopping preferences of the customers is a critical element in the purchase process followed.
- Store attributes are important in determining the customer attitude in offline shopping.
- The services offered by offline retailers have a direct effect on customer attitude.
- The effect of shopping services provided complemented by convenience has a significant influence on the customer attitude. Therefore, the offline firms should focus on improving the shopping preferences and convenience of the customers and provide more relevant shopping services.

5.8. THEORETICAL CONTRIBUTION OF THE STUDY

- Exploring the important factors of online and offline shopping which motivate the customer to purchase online rather than shop offline and vice versa.
- The present study developed scales for measuring online and offline retail preferences in Indian context
- The study has identified and validated the factors influencing the choice of online and offline channels

5.9. PRACTICAL IMPLICATIONS

The study has practical implications for online and offline retailers for better understanding the shopper behavior in the context of changing consumer's demographic and psychographic characteristics in an emerging Indian retail market. The findings may help the retailers to segment and target by altering retail formats to capture the customer's and its preference, to choose more regular retail stores for their shopping needs.

- The study has highlighted areas to address for the offline and online retailing.
- The study provides the marketing managers issues to address the determination of consumer attitude for online and offline shopping
- The study has identified the demographic profile of the shoppers who prefer offline and online shopping.
- The study has identified the product categories which have a higher preference among consumers for online and offline shopping

5.10. LIMITATIONS OF THE STUDY AND DIRECTIONS FOR THE FUTURE RESEARCH

- The study adopted purposive sampling methods which are non-random, and there may be a chance of sampling bias. Therefore, the primary study can utilize random sampling methods for further validating the study results.
- This study was done in a single time due to cost and time constraints. Longitudinal studies are more important to understand the customers purchasing preferences. Thus, future study can adopt the longitudinal approach.
- The sample of the survey was from Indian metro cities, i.e., Hyderabad, Chennai, Mumbai, Delhi, and Kolkata. Therefore, the future studies can focus semi-urban and rural areas of the country.

- Future studies can test the scale for further validation in other parts of the country.
- Future studies may add other related factors like risk, satisfaction, trust, personal data privacy, etc. in online shopping model.
- The study adopted purposive sampling methods which are non-random, and there may be a chance of sampling bias.
- The study did not address the role of factors like hedonics (pleasure derived etc.), the presence of friends and family members during the purchase process, etc.
- Customer to Customers (C2C) shopping models like Olx and Quikr are not considered for the study.
- The study developed and validated of online and offline shopping predominantly in an Indian context, which may not be applicable at a universal level.

REFERENCES

Adeline, P.-H. C. (2008). Web navigation behaviour of Malaysians in relation to online purchasing. International Journal of Business and Society, 9(1), 77.

Algharabat, R., & Dennis, C. (2009). 3D product authenticity model for online retail: An invariance analysis.

Anand, A., & Kulshreshtha, S. (2007, April). The B2C adoption in retail firms in India. In Systems, 2007. ICONS'07. Second International Conference on (pp. 46-46). IEEE.

Andersone, I., & Gaile-Sarkane, E. (2009). Behavioural differences in consumer purchasing behavior between online and traditional shopping: Case of Latvia. Economics and management, (14), 345-352.

Atul, K., & Sanjoy, R. (2013). Store attribute and retail format choice. Advances in Management, 6(11), 27.

Baltas, G. (1997). Determinants of store brand choice: a behavioural analysis. Journal of product & brand management, 6(5), 315-324.

Beldona, S., Morrison, A. M., & O'Leary, J. (2005). Online shopping motivations and pleasure travel products: a correspondence analysis. Tourism Management, 26(4), 561-570.

Bhandari, N., & Kaushal, P. (2013). Online Consumer Behavior: An Exploratory Study. Global Journal of Commerce and Management Perspective, 2(4), 98–107.

Bhatnagar, A. (2012). Supply Chain Challenges for Organised Retailing in India. International Journal of Management Research and Reviews, 2(9), 1590.

Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. Communications of the ACM, 43(11), 98–105.

Boedeker, M. (1995). New-type and traditional shoppers: a comparison of two major consumer groups. International Journal of Retail & Distribution Management, 23(3), 17-26.

Bonnin, G., & Goudey, A. (2012). The kinetic quality of store design: an exploration of its influence on shopping experience. Journal of Retailing and Consumer Services, 19(6), 637-643.

Brennan, D. P., & Lundsten, L. (2000). Impacts of large discount stores on small US towns: reasons for shopping and retailer strategies. International Journal of Retail & Distribution Management, 28(4/5), 155-161.

Byrne, B. N. (2001). Structural equation modelling with AMOS. Rahwah. J.: Lawrence Erlbaum Associates. Chapman, KJ, Davis, R., Toy, D., & Wright, L. (2004). Academic Integrity in the Business School Environment: I'll get by with a Little Help from My Friends. Journal of Marketing Education, 26(3), 236–249.

Cao, X. J., Xu, Z., & Douma, F. (2012). The interactions between e-shopping and traditional in-store shopping: an application of structural equations model. Transportation, 39(5), 957-974.

Card, J. A., Chen, C. Y., & Cole, S. T. (2003). Online travel products shopping: Differences between shoppers and non-shoppers. Journal of Travel Research, 42(2), 133-139.

Carpenter, J. M., & Moore, M. (2006). Consumer demographics, store attributes, and retail format choice in the US grocery market. International Journal of Retail & Distribution Management, 34(6), 434-452.

Chang, E. C., & Tseng, Y. F. (2013). Research note: E-store image, perceived value and perceived risk. Journal of Business Research, 66(7), 864-870.

Cheema, U., Rizwan, M., Jalal, R., Durrani, F., & Sohail, N. (2013). The trend of online shopping in 21st century: Impact of enjoyment in TAM Model. Asian Journal of Empirical Research, 3(2), 131-141.

Chen, S., & Granitz, N. (2012). Adoption, rejection, or convergence: Consumer attitudes toward book digitization. Journal of Business Research, 65(8), 1219-1225.

Chiang, K. P., & Dholakia, R. R. (2003). Factors driving consumer intention to shop online: an empirical investigation. Journal of Consumer psychology, 13(1-2), 177-183.

Chiu, C. M., Chang, C. C., Cheng, H. L., & Fang, Y. H. (2009). Determinants of customer repurchase intention in online shopping. Online information review, 33(4), 761-784.

Chiu, C. M., Wang, E. T., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: the roles of utilitarian value, hedonic value and perceived risk. Information Systems Journal, 24(1), 85-114.

Chu, J., Arce-Urriza, M., Cebollada-Calvo, J. J., & Chintagunta, P. K. (2010). An empirical analysis of shopping behavior across online and offline channels for

grocery products: the moderating effects of household and product characteristics. Journal of Interactive Marketing, 24(4), 251-268.

Clemes, M. D., Gan, C., & Zhang, J. (2014). An empirical analysis of online shopping adoption in Beijing, China. Journal of Retailing and Consumer Services, 21(3), 364-375.

Close, A. G., & Kukar-Kinney, M. (2010). Beyond buying: Motivations behind consumers' online shopping cart use. Journal of Business Research, 63(9), 986-992.

Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Dabholkar, P. A., Johnston, W. J., & Cathey, A. S. (1994). The dynamics of long-term business-to-business exchange relationships. Journal of the Academy of Marketing Science, 22(2), 130–145.

Dai, B., Forsythe, S., & Kwon, W. S. (2014). The impact of online shopping experience on risk perceptions and online purchase intentions: does product category matter? Journal of Electronic Commerce Research, 15(1), 13.

Danaher, P. J., Wilson, I. W., & Davis, R. A. (2003). A comparison of online and offline consumer brand loyalty. Marketing Science, 22(4), 461-476.

Das, G. (2014). Factors affecting Indian shoppers′ attitude and purchase intention: An empirical check. Journal of Retailing and Consumer Services, 21(4), 561-569.

Delafrooz, N., Paim, L. H., & Khatibi, A. (2009). Developing an instrument for measurement of attitude toward online shopping. European Journal of Social Sciences, 7(3), 166-177.

Dennis, C., Merrilees, B., Jayawardhena, C., & Tiu Wright, L. (2009). E-consumer behaviour. European Journal of Marketing, 43(9/10), 1121-1139.

Dennis, C., Morgan, A., Wright, L. T., & Jayawardhena, C. (2010). The influences of social e-shopping in enhancing young women's online shopping behaviour. Journal of Customer Behaviour, 9(2), 151-174.

Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: validating e-commerce metrics. Information systems research, 13(3), 316-333.

Dutta, S. (2012). E-tailing—a digital make-over of traditional retailing of India—issues and challenges. SIT Journal of Management, 1(1), 207-217.

Ebrahim, R. S. (2013). A study of brand preference: An experiential view (Doctoral dissertation, Brunel University Brunel Business School PhD Theses).

Elliott, M. T., & Speck, P. S. (2005). Factors that affect attitude toward a retail web site. Journal of Marketing Theory and Practice, 13(1), 40-51.

Éthier, J., Hadaya, P., Talbot, J., & Cadieux, J. (2006). B2C web site quality and emotions during online shopping episodes: An empirical study. Information & Management, 43(5), 627-639.

Evanschitzky, H., Kenning, P., & Vogel, V. (2004). Consumer price knowledge in the German retail market. Journal of Product & Brand Management, 13(6), 390–405. http://doi.org/10.1108/10610420410560299

Farag, S., Schwanen, T., Dijst, M., & Faber, J. (2007). Shopping online and/or in-store? A structural equation model of the relationships between e-shopping and in-store shopping. Transportation Research Part A: Policy and Practice, 41(2), 125-141.

Field, A. (2000). Postgraduate statistics: Cluster analysis. Retrieved January 26, 2010.

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research, 18(3), 382.

Gehrt, K. C., & Yan, R. N. (2004). Situational, consumer, and retailer factors affecting Internet, catalogue, and store shopping. International Journal of Retail & Distribution Management, 32(1), 5-18.

Gehrt, K. C., Rajan, M. N., Shainesh, G., Czerwinski, D., & O'Brien, M. (2012). Emergence of online shopping in India: shopping orientation segments. International Journal of Retail & Distribution Management, 40(10), 742-758.

Ghosh, P., Tripathi, V., & Kumar, A. (2010). Customer expectations of store attributes: A study of organized retail outlets in India. Journal of Retail and Leisure Property, 9(1), 75-87.

Ghosh, P., Tripathi, V., & Kumar, A. (2010). Customer expectations of store attributes: A study of organized retail outlets in India. Journal of Retail and Leisure Property, 9(1), 75-87.

Goel, B., & Dewan, B. (2011). Factors affecting consumer preferences of shopping at organised retail stores in Punjab. Journal of Engineering, Sciences and Marketing Education, 4, 44-49.

Gopal, V. V., & Suryanarayana, A. (2011). Growth drivers and challenges for organised retailing in India. In 2010 International Conference on Business and Economics Research (Vol. 1).

Goswami, P., & Mishra, M. S. (2009). Would Indian consumers move from Karana stores to organized retailers when shopping for groceries? Asia Pacific Journal of Marketing and Logistics, 21(1), 127-143.

Grewal, D., Janaki Raman, R., Kalyanam, K., Kannan, P. K., Ratchford, B., Song, R., & Tolerico, S. (2010). Strategic online and offline retail pricing: A review and research agenda. Journal of Interactive Marketing, 24(2), 138–154. http://doi.org/10.1016/j.intmar.2010.02.007

Groß, M. (2015). Exploring the acceptance of technology for mobile shopping: an empirical investigation among Smartphone users. The International Review of Retail, Distribution and Consumer Research, 25(3), 215-235.

Grossnickle, J., & Raskin, O. (2000). The handbook of online marketing research: knowing your customer using the Net. McGraw-Hill Professional.

Gupta, A., Su, B. C., & Walter, Z. (2004). An empirical study of consumer switching from traditional to electronic channels: A purchase-decision process perspective. International Journal of Electronic Commerce, 8(3), 131-161.

Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. Journal of Business Research, 62(5), 565-571.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). Multivariate data analysis (Vol. 5, No. 3, pp. 207-219). Upper Saddle River, NJ: Prentice hall.

Handa, V., & Grover, N. (2012). Retail sector in India: Issues & challenges. International Journal of Multidisciplinary Research, 2(5), 244-264.

Hart, C., Doherty, N., & Ellis-Chadwick, F. (2000). Retailer adoption of the Internet–Implications for retail marketing. European Journal of Marketing, 34(8), 954-974.

Hasan, B. (2016). Perceived irritation in online shopping: The impact of website design characteristics. Computers in Human Behavior, 54, 224-230.

Hernández, B., Jiménez, J., & José Martín, M. (2011). Age, gender and income: do they really moderate online shopping behaviour?. Online Information Review, 35(1), 113-133.

Hongyoun Hahn, K., & Kim, J. (2009). The effect of offline brand trust and perceived internet confidence on online shopping intention in the integrated multi-channel context. International Journal of Retail & Distribution Management, 37(2), 126-141.

Hsin Chang, H., & Wang, H. W. (2011). The moderating effect of customer perceived value on online shopping behaviour. Online Information Review, 35(3), 333-359.

Hu, F. L., & Chuang, C. C. (1970). A study of the relationship between the value perception and loyalty intention toward an e-retailer website. The Journal of Internet Banking and Commerce, 17(1), 1-18.

Irani, N., & Hanzaee, K. H. (2011). The effects of variety-seeking buying tendency and price sensitivity on utilitarian and hedonic value in apparel shopping satisfaction. International Journal of Marketing Studies, 3(3), 89.

Ismail El-Adly, M. (2007). Shopping malls attractiveness: a segmentation approach. International Journal of Retail & Distribution Management, 35(11), 936-950.

Jackson, V., Stoel, L., & Brantley, A. (2011). Mall attributes and shopping value: Differences by gender and generational cohort. Journal of retailing and consumer services, 18(1), 1-9.

Jain, R., & Bagdare, S. (2009). Determinants of Customer Experience in New Format Retail Stores. Journal of Marketing & Communication, 5(2).

Jaipal, R., & Kumar, D. S. Electronic Retailing-A Model of Customer Interaction. International Research Journal of Management Science & Technology.

Jarvenpaa, S. L., & Todd, P. A. (1996). Consumer reactions to electronic shopping on the World Wide Web. International Journal of Electronic Commerce, 1(2), 59–88.

Jayasankara Prasad, C., & Ramachandra Aryasri, A. (2011). Effect of shopper attributes on retail format choice behaviour for food and grocery retailing in India. International Journal of Retail & Distribution Management, 39(1), 68-86.

Jepsen, A. L. (2007). Factors affecting consumer use of the Internet for information search. Journal of Interactive Marketing, 21(3), 21-34.

Jiang, L., Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. Journal of Service Management, 24(2), 191-214.

Jöreskog, K. G., & Sörbom, D. (1993). New features in LISREL 8. Chicago: Scientific Software.

Joseph, M., Soundararajan, N., Gupta, M., & Sahu, S. (2008). Impact of organized retailing on the unorganized sector (No. id: 1672).

Joshi, D. J. (2013). An analysis of the existing literature on B2C E-commerce. Indian Journal of Marketing, 43(12), 34-46.

Kalia, P. (2015). Top e-Retailers of India: business model and components. International Journal of Electronic Marketing and Retailing, 6(4), 277-298.

Kar, S. S., & Sahoo, S. K. (2009). Organised Retailing in India: Issues and Challenges. Indian Journal of Marketing, 39(11), 10-14.

Kathuria, L. M., & Jain, S. (2012). Do unorganised retail outlets feel threatened due to entry of organised retail outlets? Empirical evidence from an emerging market. International Journal of Indian Culture and Business Management, 5(4), 385-404.

Kennedy, A., & Coughlan, J. (2006). Online shopping portals: an option for traditional retailers? International Journal of Retail & Distribution Management, 34(7), 516-528.

Khare, A., & Rakesh, S. (2011). Antecedents of online shopping behavior in India: An examination. Journal of Internet Commerce, 10(4), 227-244.

Kim, C., Galliers, R. D., Shin, N., Ryoo, J. H., & Kim, J. (2012). Factors influencing Internet shopping value and customer repurchase intention. Electronic Commerce Research and Applications, 11(4), 374-387.

Kim, C., Li, W., & Kim, D. J. (2015). An empirical analysis of factors influencing M-shopping use. International Journal of Human-Computer Interaction, 31(12), 974-994.

Kim, J., & Forsythe, S. (2010). Factors affecting adoption of product virtualization technology for online consumer electronics shopping. International Journal of Retail & Distribution Management, 38(3), 190-204.

Kim, J., & Park, J. (2005). A consumer shopping channel extension model: attitude shift toward the online store. Journal of Fashion Marketing and Management: An International Journal, 9(1), 106-121.

Kim, W. G., & Kim, D. J. (2004). Factors affecting online hotel reservation intention between online and non-online customers. International Journal of Hospitality Management, 23(4), 381-395.

Kumar, N., & Ruan, R. (2006). On manufacturers complementing the traditional retail channel with a direct online channel. Quantitative Marketing and Economics, 4(3), 289-323.

Kwon, K. N., & Jain, D. (2009). Multichannel shopping through non-traditional retail formats: Variety-seeking behavior with hedonic and utilitarian motivations. Journal of Marketing Channels, 16(2), 149-168.

Kwon, S. J., & Chung, N. (2010). The moderating effects of psychological reactance and product involvement on online shopping recommendation mechanisms based on a causal map. Electronic Commerce Research and Applications, 9(6), 522-536.

Lee, K. S., & Tan, S. J. (2003). E-retailing versus physical retailing: A theoretical model and empirical test of consumer choice. Journal of Business Research, 56(11), 877-885.

Levin, A. M., Levin, I. P., & Weller, J. A. (2005). A multi-attribute analysis of preferences for online and offline shopping: Differences across products, consumers, and shopping stages. Journal of Electronic Commerce Research, 6(4), 281.

Levin, A. M., Levin, I. R., & Heath, C. E. (2003). Product category dependent consumer preferences for online and offline shopping features and their influence on multi-channel retail alliances. J. Electron. Commerce Res., 4(3), 85-93.

Li, H., Kuo, C., & Rusell, M. G. (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. Journal of Computer-Mediated Communication, 5(2), 0-0.

Liang, C. J., & Chen, H. J. (2009). A study of the impacts of website quality on customer relationship performance. Total Quality Management, 20(9), 971-988.

Liang, C. J., Chen, H. J., & Wang, W. H. (2008). Does online relationship marketing enhance customer retention and cross-buying? The service industries journal, 28(6), 769-787.

Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: a field study. Journal of marketing research, 234-245.

Lin, H. F. (2007). The impact of website quality dimensions on customer satisfaction in the B2C e-commerce context. Total Quality Management and Business Excellence, 18(4), 363-378.

Liu, C., & Forsythe, S. (2010). Sustaining online shopping: Moderating role of online shopping motives. Journal of Internet Commerce, 9(2), 83-103.

Liu, C., & Forsythe, S. (2011). Examining drivers of online purchase intensity: Moderating role of adoption duration in sustaining post-adoption online shopping. Journal of retailing and consumer services, 18(1), 101-109.

Lu, H. P., & Yu-Jen Su, P. (2009). Factors affecting purchase intention on mobile shopping web sites. Internet Research, 19(4), 442-458.

Mahi, H., & Eckhardt, G. (2007). Conducting consumer research in India and China: issues, challenges and new directions. Adv. Consume. Res, 35, 889.

May So, W. C., Danny Wong, T. N., & Sculli, D. (2005). Factors affecting intentions to purchase via the internet. Industrial Management & Data Systems, 105(9), 1225-1244.

Michon, R., Chebat, J. C., & Turley, L. W. (2005). Mall atmospherics: the interaction effects of the mall environment on shopping behavior. Journal of Business Research, 58(5), 576-583.

Ming-Sung Cheng, J., Shih-Tse Wang, E., Ying-Chao Lin, J., & Vivek, S. D. (2009). Why do customers utilize the internet as a retailing platform? A view from consumer perceived value. Asia Pacific Journal of Marketing and Logistics, 21(1), 144-160.

Mishra, S. (2009). A Paradigm Shift from Pyramid to New Multifaceted Consumer Class in India and its Impact on Organised Retailing. Journal of Marketing & Communication, 5(2).

Moshrefjavadi, M. H., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A., & Asadollahi, A. (2012). An analysis of factors affecting on online shopping behavior of consumers. International Journal of Marketing Studies, 4(5), 81.

Mujumdar, A. (2005). A Model for Customer Loyalty for Retail Stores inside Shopping Malls-An Indian Perspective. Journal of services research.

Mukherjee, A., Satija, D., Goyal, T. M., Mantrala, M. K., & Zou, S. (2012). Are Indian consumers brand conscious? Insights for global retailers. Asia Pacific Journal of Marketing and Logistics, 24(3), 482-499.

Mummalaneni, V. (2005). An empirical investigation of Web site characteristics, consumer emotional states and on-line shopping behaviours. Journal of Business Research, 58(4), 526-532.

Nambisan, P., & Watt, J. H. (2011). Managing customer experiences in online product communities. Journal of Business Research, 64(8), 889-895.

Ottar Olsen, S., & Skallerud, K. (2011). Retail attributes' differential effects on utilitarian versus hedonic shopping value. Journal of Consumer Marketing, 28(7), 532-539.

Pahnila, S., & Warsta, J. (2010). Online shopping viewed from a habit and value perspective. Behaviour & Information Technology, 29(6), 621-632.

Pan, M. C. (2010). The Effects of Payment Mechanism and Shopping Situation on Purchasing Intention-The Moderating Effect of Product Involvement. Xing Xiao Ping Lun, 7(1), 25.

Panda, R., & Narayan Swar, B. (2013). Online Shopping: An Exploratory Study to Identify the Determinants of Shopper Buying Behaviour. International journal of business insights & transformation, 7(1).

Park, C. H., & Kim, Y. G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. International Journal of Retail & Distribution Management, 31(1), 16-29.

Park, E. J., Kim, E. Y., Funches, V. M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. Journal of Business Research, 65(11), 1583-1589.

Patel, V., & Sharma, M. (2009). Consumers' motivations to shop in shopping malls: A study of Indian shoppers. ACR Asia-Pacific Advances.

Perea y Monsuwé, T., Dellaert, B. G., & De Ruyter, K. (2004). What drives consumers to shop online? A literature reviews. International journal of service industry management, 15(1), 102-121.

Perea y Monsuwé, T., Dellaert, B. G., & De Ruyter, K. (2004). What drives consumers to shop online? A literature review. International journal of service industry management, 15(1), 102-121.

Perea y Monsuwé, T., Dellaert, B. G., & De Ruyter, K. (2004). What drives consumers to shop online? A literature review. International journal of service industry management, 15(1), 102-121.

Phau, I., & Meng Poon, S. (2000). Factors influencing the types of products and services purchased over the Internet. Internet Research, 10(2), 102-113.

Prashar, S., Vijay, T. S., & Parsad, C. (2015). Antecedents to online shopping: Factors influencing the selection of web portal. International Journal of E-Business Research (IJEBR), 11(1), 35-55.

Raijas, A., & Tuunainen, V. K. (2001). Critical factors in electronic grocery shopping. The International Review of Retail, Distribution and Consumer Research, 11(3), 255-265.

Reibstein, D. J. (2002). What attracts customers to online stores, and what keeps them coming back? Journal of the academy of Marketing Science, 30(4), 465-473.

Rezaei, S., & Amin, M. (2013). Exploring online repurchase behavioural intention of university students in Malaysia. Journal for Global Business Advancement, 6(2), 92-119.

Rietveld, T., & Van Hout, R. (1993). Statistical techniques for the study of language behaviour. Berlijn: Mouton de Gruyter.

Rotem-Mindali, O., & Salomon, I. (2007). The impacts of E-retail on the choice of shopping trips and delivery: Some preliminary findings. Transportation Research Part A: Policy and Practice, 41(2), 176-189.

Sakkthivel, A. M. (1970). Impact of demographics on the consumption of different services online in India. The Journal of Internet Banking and Commerce, 11(3), 1-7.

Sakkthivel, A. M. (2009). Impact of demographics on online buying behaviour towards different products. International Journal of Electronic Finance, 3(3), 284-296.

Schoenbachler, D. D., & Gordon, G. L. (2002). Multi-channel shopping: understanding what drives channel choice. Journal of Consumer Marketing, 19(1), 42-53.

Sengupta, A. (2008). Emergence of modern Indian retail: an historical perspective. International Journal of Retail & Distribution Management, 36(9), 689-700.

Seock, Y. K., & Bailey, L. R. (2008). The influence of college students' shopping orientations and gender differences on online information searches and purchase behaviours. International Journal of Consumer Studies, 32(2), 113-121.

Sharma, A., Singhal, Y. K., Makhija, D., Goyal, A. K., Agarwal, N., & Bakhshi, A. (2007, May). Factors affecting e-tailing website effectiveness: An Indian

perspective. In Internet and Web Applications and Services, 2007. ICIW'07. Second International Conference on (pp. 41-41). IEEE.

Shergill, G. S., & Chen, Z. (2005). Web-Based Shopping: Consumers 'attitudes Towards Online Shopping in New Zealand. Journal of electronic commerce research, 6(2), 78.

Shobeiri, S., Laroche, M., & Mazaheri, E. (2013). Shaping e-retailer's website personality: The importance of experiential marketing. Journal of retailing and consumer services, 20(1), 102-110.

Shobeiri, S., Mazaheri, E., & Laroche, M. (2014). Improving customer website involvement through experiential marketing. The Service Industries Journal, 34(11), 885-900.

Shobeiri, S., Mazaheri, E., & Laroche, M. (2015). Shopping online for goods vs. services: where do experiential features help more. International Journal of Consumer Studies, 39(2), 172-179.

Shukla, A., & Shukla, A. (2013). A study of changing consumer behavior towards convenience stores by entrance of malls in India. Zenith international journal of business economics & management research, 3(4), 287-302.

Sim, L. L., & Koi, S. M. (2002). Singapore's Internet shoppers and their impact on traditional shopping patterns. Journal of Retailing and Consumer Services, 9(2), 115-124.

Singh, D., Bansal, M., & Kaur, N. (2012). Internet retailing-new era of marketing. International Journal of Marketing and Technology, 2(3), 154.

Singh, H., & Kaur, N. (2008). Retailing in India: recent trends & challenges. Indian journal of Marketing, 38(4).

Singh, R., Sandhu, H. S., Metri, B. A., & Kaur, R. (2010). Relating organised retail supply chain management practices, competitive advantage and organisational performance. Vision, 14(3), 173-190.

Sinha, P. K., & Banerjee, A. (2004). Store choice behaviour in an evolving market. International Journal of Retail & Distribution Management, 32(10), 482-494.

Sinha, P. K., & Kar, S. K. (2007). An insight into the growth of new retail formats in India.

Sinha, P. K., & Uniyal, D. P. (2005). Using observational research for behavioural segmentation of shoppers. Journal of Retailing and Consumer Services, 12(1), 35-48.

Srikanth, V., & Dhanapala, R. (2011). A business review of e-retailing in India. International Journal of Business Research and Management (IJBRM), 1(3), 105-121

Srivastava Dabas, C., Sternquist, B., & Mahi, H. (2012). Organized retailing in India: upstream channel structure and management. Journal of Business & Industrial Marketing, 27(3), 176-195.

Srivastava, R. K. (2008). Changing retail scene in India. International Journal of Retail & Distribution Management, 36(9), 714-721.

Su, B. C. (2007). Consumer e-tailer choice strategies at on-line shopping comparison sites. International Journal of Electronic Commerce, 11(3), 135-159.

Subba Rao, S (2000). E-commerce: the medium is the mart. New Library World, 101(2)53-59

Talreja, M., & Jain, D. (2013). Changing Consumer Perceptions towards Organized Retailing from Unorganized Retailing. An Empirical Analysis. International Journal of Marketing, Financial Services & Management Research, 2(6), 73-85.

Topaloğlu, C. (2012). Consumer motivation and concern factors for online shopping in Turkey. Asian Academy of Management Journal, 17(2), 1-19.

Tractinsky, N., & Lowengart, O. (2007). Web-Store Aesthetics in E- Retailing: A Conceptual Framework and Some Theoretical Implications. Academy of Marketing Science Review, 11(1), 1–19.

Tripathi, G., & Dave, K. (2013). Store format choice and relationship quality in apparel retail: A study of young and early-middle aged shoppers in New Delhi region. Journal of Retailing and Consumer Services, 20(5), 479-487.

Tsao, W. C., & Tseng, Y. L. (2011). The impact of electronic-service quality on online shopping behaviour. Total Quality Management & Business Excellence, 22(9), 1007-1024.

Tse, A. C., & Yim, F. (2002). Factors affecting the choice of channels: online vs. conventional. Journal of International Consumer Marketing, 14(2-3), 137-152.

Van Slyke, C., Comunale, C. L., & Belanger, F. (2002). Gender differences in perceptions of web-based shopping. Communications of the ACM, 45(8), 82–86.

Verhagen, T., Boter, J., & Adelaar, T. (2010). The effect of product type on consumer preferences for website content elements: An empirical study. Journal of Computer-Mediated Communication, 16(1), 139-170.

Vijayasarathy, L. R. (2004). Predicting consumer intentions to use on-line shopping: the case for an augmented technology acceptance model. Information & management, 41(6), 747

Vrechopoulos, A. P., Siomkos, G. J., & Doukidis, G. I. (2001). Internet shopping adoption by Greek consumers. European Journal of Innovation Management, 4(3), 142–153.

Wakefield, K. L., & Baker, J. (1998). Excitement at the mall: determinants and effects on shopping response. Journal of retailing, 74(4), 515-539.

Ward, M. R. (2001). Will online shopping compete more with traditional retailing or catalogue shopping? Netnomics, 3(2), 103-117.

Ward, M. R., & Lee, M. J. (2000). Internet shopping, consumer search and product branding. Journal of product & brand management, 9(1), 6-20.

Wrigley, N., Lowe, M., & Currah, A. (2002). Retailing and e-tailing. Urban Geography, 23(2), 180-197.

Wu, H., & Zhang, J. T. (2006). Nonparametric regression methods for longitudinal data analysis: mixed-effects Modeling approaches (Vol. 515). John Wiley & Sons.

Xu, K., Chan, J., Ghose, A., & Han, S. P. (2016). Battle of the channels: The impact of tablets on digital commerce. Management Science, 63(5), 1469-1492.

Yang, Z., & Jun, M. (2002). Consumer perception of e-service quality: from internet purchaser and non-purchaser perspectives. Journal of Business Strategies, 19(1), 19.

Zhou, L., Dai, L., & Zhang, D. (2007). Online shopping acceptance model-A critical survey of consumer factors in online shopping. Journal of Electronic commerce research, 8(1), 41.

APPENDIX – A : QUESTIONNAIRE

Factors Affecting Customers Choice of Shopping- A Comparative Study of Online & Offline Shopping in the Indian Context.

- The purpose of this survey is to study the customer preferences towards online and offline shopping. The questionnaire is designed to collect data which will be used purely for the academic (Doctoral Research) Purpose.
- This survey is anonymous and strictly confidential. There are no right or wrong answers. The only purpose is to find out your shopping preferences.
- All responses will be kept confidential. Your co-operation in providing this information will be greatly appreciated. **Please tick / fill up the blanks with the response.**

Section: A

- This section refers to your personal information which helps me to validate the questionnaire.

1. Name(Optional): _____

2. Gender: Male [ ] Female [ ]

3. Age: 18 - 25 years [ ] 26 - 30 years [ ] 31 – 40 years [ ]
   41 –50 years [ ] Above 51 years [ ]

4. Education:

SSC [ ] Intermediate [ ] Degree [ ]
Master's Degree [ ] Ph.D. [ ]
Others (please specify) _____

5. Marital Status: Married [ ] Unmarried [ ]
   If Married, Number of children: _____

6. Occupation: [ ]
   A. Govt Employee B. Private Employee C. Own Business
   D. Self-Employed Professional E. Student F. House Wife
   G. Others (please specify) _____

7. Monthly Income in Rupees (Approximately) : [ ]
   A. 5,000- 15,000 B. 15, 001-25,000 C. 25,001- 35,000
   D. 35,001- 45,000 E. 45,000 –55,000 F. 55,001 & Above

8. How long have you been using internet : [ ]

A. Less than 1 year B. 1 –5 years
C. 5 – 10 years D. Above 10years

9. Most frequently used device to access internet: [ ]

A. Laptop B. Desktop PC
C. Mobile Phone/ Smart Phone D. Tablet

10. Average time spent on internet during a day [ ]

A. 30 minutes B. >30 min <= 1hour C.1-2 hours
D. 3-4 hours E. More than 4 hours

11. Type of internet connection: [ ]

A. Wi-Fi B. Broadband C. Mobile Data

12. How often do you buy products online?

		Frequency of online purchase					
Items /Products	Did not Purchase Online till now	At least once in a week	At least once in a 15 days	At least once in a month	At least once in 3 months	At least once in a an year	Other than previous (Pls. mention time)
Electronic Goods (mobile phones, laptops, computers, etc.)							
Apparels & Accessories (Readymade clothes, footwea etc.)							
Personal care & beauty items							
Home Appliances & Furnishing (A/Cs, Refrigerators, TVs etc.)							
Food & Grocery Items							
Books & Stationery items							
Mobile/DTH Recharge							
Train ticket booking							
Bus/ Cab booking							

Movie ticket booking							

13. Preferred device for online shopping: [ ]

A. Laptop B. Desktop PC C. Mobile Phone/ Smart Phone D. Tablet.

14. Which payment method do you use most often when buying products online? [ ]

A. Debit card B. Credit card

C. Net Banking D. Mobile Banking

E. Cash on Delivery (CoD) F. Others (Please specify) _____

Section: B

Online Shopping Questions

The statements below are related to certain aspects of the shopping (Online / Offline) channels. For each of the following statements, please tick the number which best reflects your opinion of such shopping preference.

The Opinion Survey Scale Ranges from 1 To 5

1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)

Statements	SD 1	D 2	N 3	A 4	SA 5
1. When I shop online, lowest price is most important for me					
2. It is easy to compare product prices online.					
3. It is important to me to get the best price for the products I buy onlir					
4. I check price in online and purchase the goods at offline stores.					
5. I find myself checking the prices of the products for special offers.					
6. I compare prices of at least a few brands on online sites before I cl one					
7. It is easy to shop online					

8.I can shop online for products that are hard to find offline					
9. Shopping online avoids the hassle of going to store					
10. I enjoy shopping online more than shopping offline					
11. I plan to increase my expenditure on online shopping.					
12. I strongly recommend shopping online to others.					
13. When I shop online, I look for Brand information of the products					
14. I prefer to shop online for electronic goods					
15. I prefer to shop online for books and stationery items.					
16. I prefer to shop online for apparels, footwear and sportswear.					
17. I prefer to shop online for laptop, mobiles, TV, etc.					
18. I prefer to shop online for daily home needs and grocery products.					
19. It is easier to compare product features online					
20. I like to shop online because I can do it any time of the day and night					
21. Shopping online saves time.					
22. I could shop from anywhere in online shopping					
23. I am able to find desired product quickly while shopping online					
24. I am able to complete my purchase very easily in online shopping					
25. In online shopping I can easily return unwanted items					
26. For products I can buy online, I intend to completely switch over to online Shopping rather than buying them offline.					
27. I prefer to do online shopping in the company of my friends / family.					
28. When I shop online, Product delivery is timely (on time-as promised)					
29. It is difficult for me/someone to be present at the given address at the delivery time to take product delivery for online purchases.					
30. Goods delivered through online shopping could be damaged.					
31. Goods delivered through online shopping could be duplicate goods.					
32. There is a possibility of receiving wrong products (other than the ones I ordered) in online shopping					
33. I use online services for bill payments, like electricity bills.					

34. I prefer online services for Mobile and DTH TV recharges					
35. I prefer online for booking like bus/ cab					
36. I prefer online for booking air tickets					
37. I prefer online for booking train tickets					
38. I prefer online for booking movie tickets					
39. When I shop online, I look for information about dealers that carry the product					
40. When I check for products often there is out of stock status in online shopping.					
41. 24/7 customer care is available for online shopping.					
42. I prefer mobile Apps for online shopping rather than visiting the websites					
43. Making online payment is secure in online shopping.					
44. Website design (attractiveness) is important in online shopping.					
45. I go through online product reviews before placing online order					
46. My privacy is guaranteed in online shopping.					

Section: C : Offline Shopping Questions

1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)

Statements	SD 1	D 2	N 3	A 4	SA 5
1. When I visit a store (shop offline), lowest price is most important for me.					
2. I compare prices of at least a few brands of offline (organized and unorganized retailers) before I choose one					
3. When I visit the store I will check the prices of all types of products I want to buy.					
4. Even if the price of the product is higher in a store, I prefer buying in a store as I believe I will get genuine product.					
5. When I visit a store, I easily find the products I need, with the help of store staff.					
6. When I shop offline, I look for store layout which guides me toward products I need.					
7. When I shop offline, I look for stores with parking facility for vehicles.					
8. Shopping offline(buying at stores) offers more convenience and comfort to me					
9. When I shop offline, I prefer to shop near to my locality.					
10. I can easily pick the product which I need when I visit a store					
11. I am able to complete my purchasing in store without any difficulty					
12. I can easily carry products purchased at stores to my home.					
13. Guarantee and warranty are available for products purchased offline.					
14. Shopping offline offers genuine products.					
15. I like to shop offline because I can touch product, feel it, and make decision whether purchase it or not on the spot.					
16. Even when I search for product information online, I tend to visit the store for buying the products.					
17. Traffic problems discourage me to visit the stores.					
18. Billing takes a long time when I visit a store					
19. I enjoy the presence of other customers when I visit a store.					
20. Shopping in the stores gives me relaxation.					
21. When I get bored I would visit stores and do shopping.					

22. Shopping offline is more convenient and comfortable.					
23. I shop offline as there is availability of credit facility.					
24. I prefer to shop offline for electronic goods like TV, Laptops, mobiles, cameras, etc.					
25. I prefer to do shop offline shopping along with friends/ family.					
26. I prefer to shop offline for non-electronic goods like apparels, furniture etc.					
27. I prefer to shop offline for branded products whenever stores announce discounts					
28. I prefer to shop offline for store brands whenever stores announce discounts					
29. I shop offline for home needs(food & groceries)					
30. I prefer offline purchase of mobile recharge					
31. I prefer offline for booking like bus/ cab					
32. I prefer offline for booking air tickets					
33. I prefer offline for booking movie tickets					
34. I use offline services for bill payments, (visit e seva counters etc.)					

Preferences of online and offline shopping in the purchase of Goods and services. *(Please tick in appropriate shopping channel.)*				
S.No.	**Products**	**Online**	**Offline**	**Reasons**
1	Electronic Goods (mobile phones, laptops, computers, etc.)			
2.	Apparels & Accessories (Readymade clothes, footwear etc.)			
3.	Home Appliances & Furnishing (A/Cs, Refrigerators, TVs etc.)			
4.	Food & Grocery Items			
5.	Books & Stationery items			
6.	Mobile/DTH Recharge			
7.	Train ticket booking			
8	Bus/ Cab booking			
9.	Movie ticket booking			

Thank you very much for your time and support.

APPENDIX – B : PRESENTATIONS AND PUBLICATIONS

Papers Published in Journals

S. No	Title with Page No	Journal	ISSN /ISBN No	Impact Factor	Whether Peer Reviewed	No. of Co-Authors
1	Electronic Retailing: A Model of Customer Interaction PP 237-245	International Research Journal of Management Science & Technology	ISSN: 2348-9367	1.00	Yes	1

Articles / Chapters Published in Edited Books

S. No	Title with Page No	Book Title, Editor, Publisher	ISSN /ISBN No	Whether Peer Reviewed	No. of Co-Authors
1	Electronic Retailing in India – Drivers and Hurdles PP 385-389	Business Management in the New Era: Issues and Challenges Ed: Suresh Reddy Jakka Paramount Publishing House	978-93-82163-94-7	Yes	1
2	Electronic Retailing in India – Past, Present and Future PP 141-146	Emerging Trends in Marketing Ed: M. Bhaskara Rao KL University	9788193063828	Yes	1
3	Factors Affecting Electronic Retailing – A Conceptual Model PP 32-38	Integrated Marketing Communication Strategy Ed: S S Prasad Rao and U Devi Prasad Excellent Publishing House	978-93-84935-38-2	Yes	1

4	A Study on socio-economic aspects of Baiga Tribe in Baidkhudra Village in Chhattisgarh PP 165-168	Consumer Dynamics and Marketing Strategies in a Globalized Economic Era – Perspectives and Challenges Ed: Y Rama Krishna Prasad, P B Appa Rao, K V S Raju, MSR Seshagiri M/s Department of Management Studies, GRIET, Hyderabad	978-81-928677-0-0	Yes	1
5	E- Retailing in India: Opening the World to Customer and Entrepreneurs PP 279-285	Intelligence Innovation and Inclusion: Best Practices for Global Excellence Department of Business Management, Central University of Pondichery.	978-81-8209-446-8	Yes	1

Full Papers in Conference Proceedings

S.No	Title of the Paper	Conference Publication Details	ISBN/ISSN No	No. of Co Authors
1	Factors Underlying Online Buying Decisions: An Exploratory Study	GCMRM 2015, MDI Gurgaon: Global Conference on Managing in Recovering Markets	978-81-929149-2-3	1
2	Choice of Payment Modes in Online Shopping	International Conference on Business Paradigms in Emerging Markets, 2014. (Springer Publication)	978-93-5196-520-6	1

Papers Presented at Conferences, Seminars, and Workshops

S. No	Title of the Paper Presented	Title of Conference /Seminar	Organized by	International/National /Regional / college or University level
1	The Role of Demographics in Online Shopping – An exploratory study	MARCON 2014, Third International Marketing Conference	IIM, Calcutta	International
2	Electronic Retailing – An exploratory study in Hyderabad City	Global Conference on Managing in Recovering Markets	MDI, Gurgaon	International
3	Choice of Payment modes in Online Shopping	Business Paradigms in Emerging Markets	NIT, Rourkela	International
4	Empowering Women through Self Help Groups – A case study of Telangana	Women's Worlds Congress on Gender in the Changing World	University of Hyderabad	International
5	A study of socio-economic aspects of Baiga Tribe in Baidkhudra Village In Chhattisgarh	Consumer Dynamics and Marketing Strategies in the Globalized Economic Era – Perspective and Challenges	GRIET, Hyderabad	International
6	Perception and Trust towards Electronic Retailing in India	Paradigm Shifts in Marketing – The Road Ahead	University of Hyderabad	National
7	Prospects of Electronic Retailing in India	Paradigm Shifts in Marketing – The Road Ahead	University of Hyderabad	National
8	Factors affecting Electronic Retailing – A Conceptual Model	Integrated Marketing Communication Strategy	Hyderabad Business School, GITAM University	National
9	Electronic Retailing in India – Past, Present and Future	Emerging Trends in Marketing	K L University	National
10	Electronic Retailing in India – Drivers and Hurdles	Business Management in New Era – Issues and Challenges	Mahatma Gandhi University, Nalgonda	National

11	E- Retailing in India: Opening the World to Customer and Entrepreneurs	Intelligence Innovation and Inclusion	Pondicherry Central University	International
12	An Overview of Online Shopping in Indian Context	"Marketing in the Digital Era- Strategic Issues and Challenges"	Pendekanti Institute of Management , Hyderabad.	National

Training Programs

S. No	Programme	Duration	Organized by
1	Refresher Course in Research Methodology	Dec 18, 2013 to Jan 7, 2014 (3 Weeks)	UGC-Academic Staff College, University of Hyderabad
2	Ten Day Research Methodology course for PhD Scholars	Aug 28 – Sept 6, 2013 (10 days)	Dept. of Business Management, Indira Gandhi National Tribal University
3	Skill Building for Effective Research and Data Analysis	Oct 3 -5, 2013	Institute of Public Enterprise, Hyderabad
4	Multivariate Analysis for Management Research	Sept 14 – 15, 2013	Osmania University