Determinants of online consumer behavior in Indian
context
An empirical study

by

Prem Sherin Raj

DISSERTATION

Presented to the Swiss School of Business and

Management Geneva

In Partial Fulfillment of the Requirements

For the Degree

DOCTOR OF BUSINESS ADMINISTRATION

SWISS SCHOOL OF BUSINESS AND MANAGEMENT
GENEVA

March 2024

Determinants of online consumer behavior in Indian
context
An empirical study

by

Prem Sherin Raj

Supervised by

Dr. Bojan Kostandinovic

APPROVED BY

Apostolos Dasilas   *ADasilas*
—————————————————————————————————————

Dissertation chair

RECEIVED/APPROVED BY:

—————————————————————————

Admissions Director

Dedication

Dedicated to my wife Rajini and children Joel & Noel whose encouragement and motivation made me finish this thesis in 2 years' time.

Acknowledgements

ABSTRACT

Determinants of online consumer behavior in Indian context
An empirical study

Prem Sherin Raj

June 2023

Dissertation Chair: <Chair's Name>

Co-Chair: <If applicable. Co-Chair's Name>

Consumer behavior is a complex phenomenon and online consumer behavior is far more complex as it's nonlinear and dynamic in nature. Consumers are moving rapidly from brick-and-mortar shops to e-commerce portals and hence it's imperative to understand their shopping behavior and accordingly ensure stickiness and repeated visits. The competitive landscape of e-shopping is vast and each brand in the space is trying to do segmenting, targeting, and positioning in their own understanding and consumer insights, moreover with technology catching up with ease and convenience the market size will grow exponentially and hence the study on this subject must be continuous to understand the ever-evolving consumer behavior. Consumer attraction and retention is the major attribute for any business and online consumer behavior will be different in different context and geography. To decode this online consumer behavior the extended theory of online consumer behavior was studied in Indian context with most of the important variable's inclusion. This model was tested for descriptive, inferential and PLS- SEM for model fitness.

Table of Contents

Chapter I: Introduction

1.1 Introduction

E-commerce has transformed the way business is done in India. E-commerce is on the flux of growth and has exploded in India in the last decade. The Indian e-commerce market is grown to US$ 200 billion by 2026 from US$ 38.5 billion as of 2017. This growth is the outcome of internet growth and penetration levels. The Indian e-commerce industry has been on an upward growth trajectory and is expected to surpass the US to become the second largest E-commerce market in the world by 2034. Most of the multinationals aspire to have a presence in the large growing market. Technological advancements and factors such as 5G, Wireless Internet services, fool proof online payment systems and large population of educated youth will explode these markets and shift the consumer focus from offline to online is a big way. More importantly from the consumer point of view it's now embedded into everybody life. Many consumers will not be able to imagine a life without e-shopping and for few of them going back to retail shopping may be a nightmare. Indian e-commerce started its journey in the 1990 and started with mostly servicing B2B which is very distinctive from B2C and more complex in nature, however in the early 20th century B2C e-commerce portal started taking shape. To thrive in B2C market most of the e-commerce portal started to understand consumer's better. E-commerce portals has exploded since 2002 with the launch of IRCTC a government of India initiative by railways which is e- ticketing portal. Today online travel portals contribute to almost 80 % of the e- ticketing space. PwC 2018 estimates that three out of every four customers will be from Tier- II cities would be less tech savvy, with low internet penetration hence will seek more transparency and probably will seek ease of maneuvering and content in local language. Indian e-commerce revenue will have growth rate of ~50% which

probably will be highest in the world, main reasons include internet access and digital payment methods. India will become a trillion-dollar digital economy by 2025 with many government initiatives such as unified payments interface (UPI), digital India, e- market, skill India etc.

One of the key measurement yardsticks is gross merchandise value (GMV) which stood at ~US $ 2 billion in 2021 and expected to reach US $ 20 billion, Which will go further to US$ 70 billion by 2030. The key beneficiary is beauty and personal care (BPC). This is has already translated and influenced pumping of huge investment by the global players even tech companies like Facebook and Google have started investing in Indian technology giants such as Reliance Jio. Liberalized polices of the government (100% FDI) coupled with smart phone usage there is looking back for the growth of e-commerce segment in India, moreover the participation of government campaigns and digital marketplace such as government e- market place has increased awareness for larger consumer knowledge and participation. Already biggies like Amazon, Flipkart, Big basket, Reliance etc. are the forerunners for maximizing the revenue pie in this ever-growing market.

Customer acquisition and retentions will be the key challenge in the coming years. Technological advancements have their own challenges and advantages. Shifting behaviors of the consumer can be a horrendous task if not addressed accurately and conveniently. Study on online consumer behavior is still evolving and it has got its own maturity curve in all countries and this study is very critical for the success of this evolving business and must be studied locally to understand the right consumer perspective to devise the right strategy.

On the other hand, the biggest sales and marketing dilemma is to understand the right online consumer behavior the key focus and objective is to learn how consumer buy, what quantity, criteria of buying, decision making process, emotions that influences, demand versus supply, choosing between brands, implied versus explicit need etc. online consumer buying behavior has

become very complex process. Classification of buying behavior can be internal and external. Every consumer asks these 5 W. Who, What, When Why & Where. Addressing together all the 5 W is impossible for marketers to address at one go. However, with technological advancement of machine learning, data science, predictive analytics, and the internet of things, marketers are trying to evolve and understand better on consumer behavior but still a long way to go. Online Consumer behavior has been of academic interest to many researchers, however off late practitioners have doubled their interest in this ever-growing and competitive markets. Many players who had initially entered have lost the game and have existed the markets or taken over by bigger giants who have understood the consumer and acted and evolved faster. There are classic examples of late entrants who have done fabulous job in managing the consumer psyche by understanding online consumer behavior.

Obvious reasons for e-commerce growth are also a factor of the country populations across segment participating in digital e-commerce transaction. The other side of the story is the favorable FDI norm which attracts foreign funding and it's estimated that there are more than 5000 e-commerce active start-ups in India (IBEF, 2020). However, the key challenges could be diversity of people with many languages and varied cultural backgrounds. Most of the tier – II consumers are expecting the content to be in local language and products to be of local flavor, these complexities are important and need to be addressed by the e-portals. Flipkart in India has acquired an artificial intelligence company which converts speech to text in 10 Indian languages (Sen 2018).

Most of the e-commerce portals have offering in Indian languages and this has enhanced the utility and increased consumer demand (Hidden, 2016). Due to this change, the participation of consumers from tier –I and tier – II cities have gone up drastically in the past one decade. Another area of improvement is the transition of moving towards a cashless economy. For e-commerce

platform cashless transaction is a blessing in disguise. KPMG attributes this success to overall inclusive government policies focused on digital payment innovations and literacy programs. The icing on the cake is the rising internet penetration, in the last few years India has recorded a CAGR of 24 %. India adds approx. 10 million daily active internet users to the internet community and it's fastest in the world. In September 2019 India had 688 million users and as per IBEF (2020) & TRAI (2019) these number will touch 840 million by 2022.

India has witnessed a huge increase in usage of smartphone and thus Mobile-enabled shopping has become the backbone of India's e-commerce industry. Easy and affordable internet access with low-cost mobile data plans is driving growths in India's e-commerce markets. A combination of smartphone penetration, easy accessibility of Internet coupled with cashless transaction options, Cash on delivery with no interest EMI has made this space more exciting and there will be tremendous growth opportunity in the coming years.

Fabmart.com was founded in India as the first e-commerce site by K. Vaitheeswaran and there were only few internet users in India (Anand & Pillai, 2015). In the last three decade there more than 5000 operating companies which operates in the internet space. E-commerce currently is a small part of India's $0.7 trillion retail industry (Jha 2020). The progressive policy of the government has cleared most of the roadblocks and covid – 19 has forced a segment of people who had been preferring to shop from traditional retail to move towards e-commerce. The e-commerce revolution has started to show signs of rapid growth in India with participation of consumers from across geography. Another important change that has happened in the post covid–19 scenario is that major traditional retailers also started investing in e-commerce as they a big threat of consumer shifting to e-commerce. Biggies like Amazon saw a surge in seller's participation in the last two years. Consumers are getting attracted towards e-commerce because of the large number of

services and products are available as per consumer preferences. Other aspects of attraction are flexibility in terms of convenience, 24 X 7 availability, affordable pricing, discounts, loyalty programs, and most important is free home delivery with cash on delivery options and return of goods within seven days if not satisfied.

Global phenomena are playing dominant role in e-commerce fabric change in India. Western world getting saturated and dominant counties like China getting restrictive & India is getting attracted and will become a battle ground for many e- commerce majors. Per capita income, rising middle class, young population, high consumer spending, and urbanization has been playing a major role of consumer shifting from brick-and-mortar stores to e- commerce platforms. Multinational e-tailers like Amazon and Walmart (latest acquisition through Flipkart, Myntra and Jabong) is gaining momentum in India. Some biggies like Alibaba and Rakuten are trying to gain access in India through investing in small and big companies. Big players are facing tough competition from each other, and start-ups are still struggling to gain access to the large consumer base.

Customer activation, acquisition and retention has been the key to success and any wrong strategic moves can hamper growth and present a negative decline. Actions without strong research and understanding of the Indian consumer mind-set will derail growth. Heavy competition over the years has pushed e-commerce platforms to devise strategies for consumers repeated purchases and ensure loyalty. Purani et al (2019) argued that customer acquisition cost in e-retail is significantly higher than in the traditional offline context. E-loyalty is very critical for deciding profitability. One of the challenges that was faced by the consumer to shift from tradition retail to e-commerce platform was the lack of shopping experience but with the invention and progression of augmented and virtual reality this is a thing of the past as most of the e-commerce platforms are trying to bridge this gap by providing best user experience, live product demos, enriching look and feel,

even to the extent of unpacking and developing used case scenario. Product reviews and experience has become one of the most influenced words of mouth in purchase decision. Study of online consumer is categorized into two types – The consumer-oriented view and the technology- oriented view (Jarvenpaa and Todd 1997). The consumer-oriented view is focused on consumer's salient beliefs about online shopping Zhou et al. (2007). This study is more focused on consumer demographics, cognitive and psychological characteristics, trust, and perception of risk of online shopping, shopping motivation, shopping orientation (Stafford et al. 2004; Huang 2003; Pires et al.2004; Johnson et al. 2004; Swaminathan et al.1999). Technology-oriented view is focused on online consumer behavior by examining the technical specification of online stores (Zhou et al.2007). Study focused on user interface features, website content and design, and system usability (Zhou et al 2007). Both the views complement each other. It's impossible to cover all potential factors in one research model and there are multiple factors which influence and affect online consumer behavior.

<u>Studies that focused on major factors.</u>

1) Koufaris (2002) tested constructs from information's system (TAM), Marketing (Consumer Behaviour), and Psychology (Flow and Environmental Psychology).

2) Pavlou (2003) studied interrelationships between consumer acceptance of e-commerce and trust, risk, perceived usefulness, and perceived ease of use.

3) Lee's et al (2003) the customer's commitment value is defined as total value perception from a buyer and is composed of socio-psychological, economic, and product values.

4) Pavlou and Fygenson (2006) researched consumer adoption of e-commerce with the extended theory of planned behaviour (TPB) (Ajzen 1991). Consumer behaviour was separately examined in getting information behaviour and purchasing behaviour both of

which were influenced by trust and perceived risk, consumer attitude, social influence, personal online skills, and technology- oriented factors including perceived usefulness, perceived ease of use and website features.

Many studies in the past have done research few major factors (3-6 factors) in an isolated way and many researchers instead of building up on specific model have tried to work on independent antecedents and direction because of lack of direction and to achieve parsimony. Hence there is a need to integrate as many key factors as possible in unified research model (Liqiang Chen et al 2009). A unified model will not only throw light on each individual determinant but also illuminate the effects of combined factors interact together and impact online consumer behavior. This research attempts to study an extended and developed unified model in Indian context. This model is chosen because of higher number of antecedent's (10 antecedents) which covers most of the critical points.

1.2 Research Problems

E- Commerce has gained solid traction in the last decade with more and more shoppers purchasing online, it's important for the marketers to develop a better understanding of e-shoppers (Constantinides, 2004; George, 2002, 2004; Jeong et al., 2009). To understand better about the shopping behavior Zhou et al, (2007) argue that both academics and online retailers must understand the antecedents of consumer acceptance of e-shopping. Though lot of work has been done on this area and bodies of literature has examined e-shopping factors and issues, still there are significant gaps in terms of understanding the consumer behavior and the use of information system (Dennis et al.,2009; Hand et al.,2009; Hansen and Jensen, 2009; Kim and Frosythe, 2007;

Lim and Ting, 2012a, b). Most of the study is in piece meal or skewed towards either focus on information system antecedents or towards consumer behavior antecedents. Empirical evidence and literature reviews suggest that there is not a single model which can explain the antecedents in the process of e- shopping keeping information system and consumer behavior process in consideration. Fishbein and Ajzen's behavioral international model (1975) has been widely used to understand the reasons for non-completed transactions. This model has been quite extensively studied on how an individual's attitude towards online shopping will influence that person's behavioral intention (Shim, et al., 2001; Westland & Clark, 1999). Attitude has been viewed as a predictor of intention and finally actual behavior (Fishbein & Ajzen, 1975).

The e-shopping integrated model rest traditionally rest upon TRA (Theory of Reasoned action). TRA is a widely studied model from social psychology that is concerned with the determinants of consciously intended behaviors (Fishbein and Ajzen, 1975). TRA is a chosen model for shopping behavior because of its usefulness. The biggest advantage of this model is the highlights of its links among attitudes, subjective norms, intentions, and behavior, not only seems to predict intentions and behavior well but also provides a relatively simple basis of identifying where and how to target shoppers behavioral change attempts (Ng and Paladino 2009). TRA suggests that a behavioral intention determines a specific behavior and person acts in the same direction of his intentions and this behavioral intention is jointly determined by his or her attitudes and subjective norms (Ajzen and Fishbein, 1980). TRA follows and explains the factors that influence the formation of e-shoppers' attitudes towards e-shopping behavior, categorically the influence of these formed attitudes on intentions to e-shop before making an e - purchase decision and the subsequent results of the actual e-shopping purchase on post purchase experience and trust.

A unified model that explains e-shopping must be studied on sound theoretical fundamentals. A synthesis of integrated IS-CB model for e-shopping to provide a holistic view is of utmost importance. Dennis et al (2009) propose to solidify a new theoretical model through the lens of theory of reasoned action (TA) (a CB viewpoint) technology acceptance model (TAM) (An IS viewpoint) and uses and gratification theory (U&G) (an IS viewpoint).

1.3 Purpose of this research

Consumer Behavior means the study of individuals, groups, or organizations about their process of selecting, securing, using, and disposing the products, services, experiences, or ideas to satisfy needs and the impact of these processes on the consumer and society. Behavior concerns either the individuals or the group. The use of product is often so important to the marketer because this influences segmenting, targeting, and positioning to encourage the right consumption.

A relationship exists between consumer behavior and marketing strategy. Donal Rogan, (2007) Stated that, strategy is about increasing the probability and frequency of buyer behavior, this can only be achieved if we know and understand the consumers' needs and wants Human needs and motives are inextricably linked and that the relationship between them is so very close that it becomes difficult to identify the precise difference which may characterize them (Chisnall 1995).

1.4 Significance of this research.

This study provides three major contributions.

a) Integrates perceived usefulness and perceived ease of use (Two Important factors in information systems) Adoption, trust and perceived risk, economic value of e-commerce,

flow-a cognitive state in the computer mediated environment and individual social norms into one model.

b) Testing of causal relationships by identifying the compound effects of various eternal behavioural beliefs, attitude, intention, social influence etc.

c) Model testing helps practitioners to understand and gain insight on the behaviours of the consumers this will help them to modify / change their strategy to suit in customer acquisition, repeat purchase, and customer retention.

1.5 Research Purpose and Questions

Online study is ever evolving though its three decades old. Earlier researchers thought that consumer behavior would be like offline consumer buying behavior, however the assumptions were not correct since information technology played a crucial role and kept evolving their own benchmarks. New technology constantly changes human behavior and social structure. Online consumers' needs to adapt to the changing online environment, any technological, environmental, political, products, promotional, introduction of new products changes etc. can put new challenges for adoption of online e- consumer. Various researchers over a period have added knowledge from various disciplines with contradictory views because of different assumptions peculiar to subject of the discipline (Bellman et al.2006; Zhou et al.2007). Online consumer behavior involves many antecedents' factors and hence a very complicated social-technical phenomenon. Over the years many researchers had added and progressed to the ocean of knowledge on online consumer behavior, however the studies appear to be fragmented and hence lack of unifying theoretical framework build up is missing probably the scope of the study is too broad (Cheung et al. 2005).

A coherent model for understanding mixed findings on consumer acceptance of e-commerce is lacking (Zhou et al.2007).

Many factors that affect online consumer behavior are not adequately explored while assuming that it will be like offline brick and mortar stores will completely misguide the research progress (Koufaris 2002; Detlor et al, 2003). Risk of unknown, risk of losing money, risk of choice, lack of trust, Time pressure, Lack of privacy, tough user interface, changing technology adaptation, modern discount structures etc., are the new challenges that online consumer will face.

The major objectives of this study are as follows.

1) Test a model called extended theory of planned behaviour which has got a broader and comprehensive perspective in Indian context. The model under consideration has been built upon solid theoretical foundation with clear focus on consumer behavioural perspectives.

2) Empirical evidence is provided to test link between the major factors and online consumer behaviour and establish the relative roles of important factors.

3) Finding the right determinants and its impact on online consumer behaviour and explain the inconsistent findings of the previous studies.

4) Check the model fit and find out the consistent and inconsistent determinants with the previous researchers.

5) Find out the most important antecedents that enables online buying behaviour and map them in ascending order.

6) Check the added antecedents integrated into this model from TPB and TAM and check its significant role in online consumer behaviour.

7) Study and compare how the extended theory of planned behaviour behaves in different age groups.

8) To understand the most significant determinants which make a particular e-commerce platform successful.

Chapter II: REVIEW OF LITERATURE

2.1 Literature review

How consumers make decision, this research subject is as old as 300 years and predominantly led economist by Nicholas Bernoulli, John von Neumann, and Oskar Morgenstern (Richarme 2007). Focusing mainly on the phenomena of purchase (Loudon and Della Bitta 1993). In those days "Utility Theory" dominated the studies which believed that consumers make choice based on expected outcomes of their decisions and are considered as rational decision makers who are only concerned with own interest (Schiffman & kanuka 2007). Marketing and sales journals have spent considerable amount of time to understand offline consumer behavior and its one of the most studied and interesting subjects picked up for critiquing by researchers.

Consumer behavior is the backbone of marketing. Practitioners spend most of the time to understand and discover the significant unmet needs of consumers. The greatest challenge of practitioners is to create differentiation for retaining customers with the least effort. Beginning about 300 years ago economist led by Nicholas Bernoulli, John von Neumann, and Oskar Morgenstern, started to examine the basis of consumer decision making (Richarme 2007), however around 1960 research on consumer behavior gained significance and emerged as independent research. The early work approached this subject from the economic perspective and kept focusing on the act of purchase (Loudon& Della Bitta 1993). Utility theory is one of the dominant models which considers and proposes that consumers make choices based on the expected outcomes of their decisions. Consumers are generally viewed as rational decision makers who are only concerned with self-interest (Schiffman & kanuk2007, Zinkhan 1992).

The journey of consumer research has evolved from rational economic models to comprehensive determinants models which covers a wide range of attributes and cover 360 degree of consumer behavior and goes beyond purchasing. Contemporary research includes activities such as need recognition, information search, evaluation of alternatives, the building of purchase intention, and the act of purchasing, consumption and finally disposal. Online consumer behavior is very critical subject for research in marketing management and management information systems, however literature review seems to have limited knowledge because of challenging social-technical phenomenon because of too many antecedent factors. Studies on online consumer behavior in the past have often produced Inconsistent or even conflicted results. The major reason is because of using simple research models to achieve parsimony, main contribution of the study is that it provides empirical evidence to prove that TPB- based research model can well handle up to ten external beliefs with combining the partial least squares (PLS) Statistical analysis. Online consumer behavior has been researched in multiple disciplines such as information systems, marketing, management science, psychology, and social psychology (Pavlou2003, 2006; Cheung et al; Zhou et al, 2007).

Online stores have many advantages – convenient, time saving, no need to travel, no need to wait in lines, shopping can be done anytime anywhere, more importantly with virtual reality (VR), augmented reality (AR) catching up its easy for consumers to compare and make purchase decision. Interactivity is the key differentiator between marketing communication on the internet and traditional mass media (Hoffman and Novak (1996). The bargaining power of consumers are at the peak levels with multiple choices and players. Consumers can switch on and off between brands and different online shopping websites. E- commerce platforms provide transparency and minute details of products and services through catalogue and consumer review and feedback.

However, one of the greatest disadvantages of e-shopping is the inability to provide usage of sensory organs in purchase decisions. Consumer preferences of using five senses of seeing, touching, tasting, smelling, and hearing play significant role in buying behaviors. Hence key challenges are (a) low trust, (b) High perceived risk, etc., however these problems can be reduced through virtual reality, interactive bouts, augmented reality artificial intelligence, predictive analytics, online recommendation agents and online negotiations agents (Huang and Lin 2007; Lau 2007). Online consumer behavior develops during the process of purchasing products or services via the internet which is not the case with offline consumer behavior (Li and Zhang 2002). Online consumer behavior needs to be further developed in understanding from both theory and practical point of view. With technological advancements more and more consumers are preferring online buying than buying from brick-and-mortar stores. e-shopping has been ingrained in younger generation from the first independent shopping to older generation shifting from traditional brick and mortar shopping, hence it's imperative to build theoretical models and derive new findings, check on the key parameters, validate the earlier finding and keep on guiding key enhancements for business to attract more and more consumers. Business has been facing challenges in the past decade as B2C has witnessed intense competition with many players entering in this space because of low entry barriers. This has led to a massive power shift from sellers to buyers and this has led to consumers have more bargaining powers, low switching cost, and increased availability of choices. For business this translates into better understanding of consumer behavior to attract, to sustain, to do more business and most importantly to retain these consumers and sell to them more frequently and repeatedly (Barsh et al.2000). Buying and selling of products electronically over the internet is defined as e- Commerce.

Generally, e-commerce is categorized into the following three sets.

a) Business to Business or B2B Example – (Cisco)

b) Business to Consumer or B2C Example – (Amazon)

c) Consumer to Consumer or C2C Example – (eBay) also called as electronic commerce

Some of the important characteristic of online shopping behavior is the ability to view and purchase the products anytime, anywhere match needs with the products and discuss products and services with other consumers (Joines et.al, 2003). Oppenheim and ward (2006) objectively state that the main reason for buying goods and services online is convenience. They also identify that earlier price played a major role for shopping online and now shifted to convenience. With the growing trend of mobile commerce or m-commerce using cell phone / personal digital assistance and other handheld devices will ensure more convenience for consumers. Since more and more consumers will use smartphone for daily needs it will accelerate e-commerce sales. The challenge most of the e-commerce giants will face in the future would be to acquire and retain customers in a competitive environment. The e- commerce markets will be easily accessible to consumers and the flow at any time would be in millions shopping for different products of different sizes. e-commerce sites must consistently innovate ways and means for hooking the consumers and outsmart each other daily to survive.

Consumer Behavior means the study of individuals, groups, or organizations about their process of selecting, securing, using, and disposing the products, services, experiences, or ideas to satisfy needs and the impact of these processes on the consumer and society. Behavior concerns either with the individuals or the group. The use of product is often so important to the marketer because this influences segmenting, targeting, and positioning to encourage the right consumption. A relationship exists between consumer behavior and marketing strategy. Donal Rogan (2007) stated

that strategy is about increasing the probability and frequency of buyer behavior, this can only be achieved if we know and understand the consumers' needs and wants. Human needs and motives are inextricably linked and the relationship between them is so very close that it becomes difficult to identify the precise difference which may characterize them (Chisnall,1995).

Table continued next page…

2.2 Few of the research findings from the literature review are consolidated below.

Sr No	Factors	Authors
1	Trust	Lee et al (2011): Papadopoulou et al (2001)
2	e-shopping experience	Constantinides et al (2010): Hsiao et al., 2012
3	Ability of perceived value	Chu and Lu (2007): Korgaonkar et al (2006)
4	Social factors	Lim and Ting (2010):Ramayah et al (2009)
5	Emotional State	Chen et al (2013) :Penz and Hogg (2011)
6	Web atmospherics	Lim (2013b): Manganari et al (2011)
7	value seeking considerations influences e- Shoppers attitudes towards e-shopping	Broekhuizen (2006) ,, Swait and Sweeney, 2000
8	Attitudes influence the intentions to buy	Al-Rafee and Cronan (2006)
9	Intention leads to actual e-shopping activities and e- shopping purchases and continued e-loyalty behavior	Ajzen (1991): Cheung et al (2005)
10	Prior purchases from e-retailers enhances e-shopping experiences. Experiences can be positive or negative	Lim (2013b)
11	Future decisions id the outcomes of the past experiences	Laroche et al (2005)
12	e-shopping experience reflects an e-shoppers familiarity with shopping through websites	Broekhuizen and Huizingh (2009)
13	e-purchases strongly influences the next e-purchase intention and e-purchasing behavior	Pavlou (2003)
14	reliable and secure e-shopping experiences is the key for e-shoppers preference to those e-retailers who can provide them	Chen and Barnes (2007)
15	Trust is the key foundation of e-purchase intention	Fukuyama (1995) :Keen (1999)
16	Generating more sales is proportional to trust – The more the trust the more the sales	Mcknight and Chervany (2002)
17	Attitude towards e-purchase is heavily influenced by PEOU technology-based services	Dabholkar (1994)
18	Favorable attitudes towards e-shopping is determined heavily by PEOU.	Verhoef and Lanerak (2001)
19	Complexity is one of the major causes of unfavorable attitudes towards e-shopping	Rogers (1995)
20	Unavailability of the physical product- Perceived Usage is the main reason that e-shoppers tend to make poor & wrong decisions	Chen et al (2002)
21	Wrong or poor product evaluation and decisions is made because of insufficient product and standard descriptors.	Grewal et al (2004)
22	Perceived ease of use and Perceived usefulness have strong empirical support and positive relationship	Segars and Grover (1993)
23	Perception of effortless purchase through internet shopping develops tendency to perceive it as useful.	Ramayah and Ignatius (2005)
24	Subjective norms as an antecedent of beliefs and intentions to use technology	Hung et al (2003

Source: Compiled from literature review

<u>Three major consumer groups researchers are interested to understand the reasons for not buying.</u>

<u>Group – I</u> - These groups are major chunk to the tune of 35%. They fail to buy products online because of technology issues such as hardware & service interruption, (Shop.org,2001; Tedeschi, 1999).

<u>Group – II</u> – Which explore internet for gaining shopping experiences without any intention for buying.

<u>Group – III</u> – Which fill the carts and leave without completing the transaction (Tedeschi, 1999). There may be multiple reasons associated with this group; a good study should throw light on this subject.

To study online consumer behavior, one must study traditional consumer behavior. The study of consumer behavior as a sub-discipline of marketing aims to identify how consumer research can be applied in marketing practice and consumer behavior is often considered an applied social science (Pachauri 2002). Consumer behavior is still young and going through pains and development (Deirdjian and Senguder 2004). Another dimension of consumer behavior is characterized by two broad paradigms namely the positivist and non-positivist (Pachauri 2002). The positivist paradigm takes the economic, behavioral, cognitive, motivational, trait, attitudinal, and situational perspectives. The non-positivist paradigm places high emphasis on the symbolic dimensions of choice and hence throws deep light on consumer behavior with no specific intent to influence consumer processes (Pachauri 2002). Attitudes alone don't influence all types of behavior. Trust, Belief, Technology usefulness belief, Playfulness belief etc. influence or shape people behavior (Ajzen 1991).

Theory of planned behavior (Ajzen 1991) is the model which improves the predictability of sequence of attitudes sequencing and finally the behavior (Pachauri 2002). This model integrates attitude, behavioral intentions, subjective norm, and perceived behavioral control. Positivist Paradigm is a vast and multidisciplinary subject ranging from economic, behavioral, cognitive, trait, Motivational, attitudinal, and situational influences on behavior. The foundation on which the Positivist paradigm build up is people are basically rational, stable, and knowable (Pachauri 2002). Treating consumers as passive objects being influenced by various factors thus ignoring consumer experience and subjective perspectives are the mains points of discontentment (Pachauri 2002). Non - Positivist paradigm looks at the interpretive and humanistic views of consumer behavior. The belief is that consumers have the capacity of proactively interpreting their environments rather than stimulating passive responses (Calder and Tybout 1987). Consumer buying are not mere rational calculations with buyers only checking on the pros and cons of objective facts but it's of matter involving felt expectations on the how part of consumption life cycle to be personally experienced - O'Shaughnessy and Holbrook (1998). Consumers make purchase decisions not only on products utility or functions but also on their symbolic meaning (Belk 1988; Bourdieu 1994). Non –positivists often get criticized for working at a very abstract level and moving away from the fundamental concepts and concerns for practice (Kavanagh, 1994). However, this discipline focuses not only on purchase process but gives due weightage to experiential and meaning aspects underpinning consumptions (Pachauri 2002).

2.3 Review of Theoretical Foundations for Online Consumer Behavior

Most of the e-commerce studies have been done in the information systems world, hence most of the research has been skewed towards information's systems phenomenon where some users may find struggling to decode complex information system process thereby neglecting the complex marketing issues (Koufaris 2002). Traditional consumer behavior is well described by marketing and economic theories. Predicting consumer behavior on the internet is complex, however system-related variables have become at least as important as traditional factors in predicting consumer behavior (Gefen et al.2003; Pavlou 2003). Researchers in the past have dominantly done research from the TRA family which Includes Technology acceptance model (TAM) and Theory of planned behavior (TPB), Theory of reasoned action (TRA). Few theories of importance including flow theory has been ignored (Cheung et al.2005), Fewer studies which have been studied extensively are Transaction Cost Theory (TCT), Expectation – Confirmation Theory (ECT). Task Technology Fit (TTF). The above theories had been embedded into either TPB or TAM. One can explore further the study of consumer behavior in the following major streams. A combination of determinants studies individually or separately can throw more insights into the complex nature of online consumer behavior.

a) Individual/Consumer characteristics

b) Environmental influences

c) Product / service characteristics

d) Medium characteristics

e) Online merchant and intermediary characteristics

2.4 The Technology Acceptance Model (TAM) used mostly in Information systems.

Developed by Davis (1989) on the foundation of theory of reasoned action (TRA) Fishbein and Ajzen (1975). This model was developed to explain computer usage behavior. The goal of TAM was to establish a parsimonious and theoretically model which could provide insights on determinants of computer acceptance capable of explaining user behavior on broad range of end-user computing technologies and user populations (Davis 1989). perceived ease of use (PEOU) & perceived usefulness (PU) and are the two important determinants considered in TAM which leads to intention to use the information system. The definition of (PU) Perceived usefulness is "The degree of belief system of a person about the system efficacy of his self-performance" and perceived ease of use is defined as a belief of a person while using a system is effortless (Davis 1989). Influence of attitude is determined by PU and PEOU which probably generate behavioral Intention (BI) to use a particular technology and lead to actual usage (AU) (Ajzen and Fishbein1975; Davis 1989), however Davis (1993) in the improved version of TAM suggest that PU is influenced by PEOU and not vice versa. Many researchers in the past have integrated TAM with other models to learn online consumer behavior one such example is Chen et al. (2004) integrated TAM with innovation diffusion theory (IDT). Findings were impressive and confirmed that TAM is a reliable and valid research model in investigating online consumer behavior. Some of the outcomes and findings were enhancing consumer's value, needs lifestyle, PU and PEOU could create more positive consumer attitude.

Koufaris (2002) integrated TAM, FLOW (Csikzentmihalyi 1977) and emotional factors into one framework for examining how all these factors influence online shopping behavior. The outcomes were enjoyment of the shopping experience and PU of the website strongly predicted consumer's

intention to return to website indicates that online consumer was not only focusing on efficiency in shopping but where online shopping was enjoyment for them. Hence TAM is useful for studying online shopping behavior's not only from the information system point of view but should be studied from purchase decision point of view. Studies done by Henderson and Divett (2003) & Gefen et al (2003) also concluded similar outcomes and recommends to study TAM for getting better insights on online consumer behavior.

Another researcher Gefen et al (2003) built TAM model with inclusion of trust as one of the determinants. The outcome of testing this model suggested trust as an important determinant for online consumer behavior as important as PU and PEOU. Pavlou (2003) concluded that trust and perceived risk with PU and PEOU influenced online consumer behavior. Venkatesh and Davis (2000) mention that studies on TAM are parsimonious and should be extended. Social psychology theories believes that individual behavior is not just driven by evaluative beliefs and attitudes but by habits, perceived behavioral control, and subjective norms (Hubona, Burton Jones 2006). Many studies suggest improving or extend TAM constructs (Venkatesh and Morris 2000).

Extension of TAM which refers to TAM 2 proposed by Venkatesh and Davis (2000) included subjective norm and found significant influence on PU and behavioral intention. Karahanna and Straub (1999) also provided empirical evidence that supported the social influence on user belief of a new technology. Venkatesh (2000) recommends that TAM could be further enhanced by adding control, intrinsic motivation, and emotions as variables within the ease-of-use dimension. Steer et al (2008) studied TAM in web-based environment for understanding user behavior and found that there were a broader range of complex factors that were needed to investigate user adoption behavior. Burton-Jones and Hubon's (2006) online consumer behavior involves more external variables than just system usage and those external variables will have stronger

interactions and hence should be added to get more insight and better understanding. TAM reflects only the influence of system usage on consumer behavior. In studying online consumer behavior TAM enriches the understanding how the consumer behaves. PU and PEOU together routinely explains 40% of usage intentions and 30% of systems usage (Meister ad Compeau 2002). TAM explains variance of intention as just the influence of the website or information systems, hence research suggests that in future models other than PU and PEOU many other important factors and antecedents should be examined.

2.5 Theory of Planned Behavior (TPB)

TAM is one of the most and widely studied model to find determinants of online behavior, however TAM excludes many important characteristics such as social influence, behavioral control etc., Online behavior must be considered from all the aspects of online consumer for better understanding, also the goal of an online shopping environment is to entice consumers to shop online, and not to study generic information system (Zhou et al 2007). The future model should deep dive and build up a comprehensive model which should encompass determinants of personal beliefs, social norms, and personal behavioral control on intentions and further on actual behaviors on the e-commerce settings. Ajzen's (1991) is a model with inclusion of determinants which is more fundamental in explaining behaviors, however TAM and TPB have same pattern of belief-attitude-intention- behavior. TPB is a model that sprang out of social psychology. The key factors to be noted is those specific salient beliefs influence given behavioral perceptions and subsequent actual behavior. Model specifies that behavioral intentions are the most influential predictor of behavior. Sheppard et al (1998) predictor of behavior has highly influenced by behavioral intentions, which translates into the intention of a person on specific action which he intends to do. There is a good correlation ship of 0.53% between intentions and behavior. TPB is the most

influential theory which explains and predicts wide range of behaviors. TPB strongly confirms attitude towards behavior, perceived behavioral control & subjective norm generally directs to favorable attitude and resultant determines behavior. This means more favorable the attitude and subjective norm, the greater the perceived behavioral control and stronger an intention to perform the behavior.

Taylor and Todd 1995, states that there is another called Decomposed theory of planned behavior (DTPB) added to the theory of TPB The attitudinal, normative and control beliefs are decomposed into specific belief dimensions. DTPB when empirically tested gave a clearer understanding of behavior and behavioral intentions. In the past many e-commerce contexts have successfully used TPB to study online consumer behavior. (Hsu and Chiu 2004, Shih, and Fang 2004 and many other). Hansen et al (2004) tested both TRA and TPB and found TPB provided a better explanation to online consumer behavior than TRA. Pavlou and Fygenson (2006) studies confirmed that trust and technology adoption variables (PU & PEOU) as salient beliefs for predicting e-commerce adoption. Their studies indicated that technological characteristics (download delay, website navigability, and information protection), consumer's skills, time and monetary resources and product characteristics (product diagnostic and product value) added to the explanatory and predictive power of the TPB based model. In the study of TPB so far Pavlou and Fygenson's model is the most comprehensive with maximum number of antecedents to actual behavior and their relationship with TPB structural constructs which are subjective norm, intention, attitude, and perceived behavioral control. The study performed by Hsua et al (2006) find empirical evidence showing that TPB can be successfully used in dynamic perspectives even though most of the TPB based studies have been conducted in static standpoint.

2.6 Comparison between TAM and TPB

TAM and TPB both are derived from TRA with many differences when they are used to explain intention and behavior. Mathieson (1991) studied TAM and TPB with the intention to use Information systems. Empirical findings reported that both TAM and TPB predicted intention to use an Information system quite well with TAM having slight empirical advantage and can be easily applied, however the drawback is it only supplies very general information on user's opinion about a system. TPB provides more specific information that can better guide development.

Three main differences between TAM and TPB (Mathieson 1991).

1) TAM & TPB both believe that PU & PEOU are the primary determinants of use decisions, However TPB asserts that beliefs are specific to each situation in many situations there could be many other variables which can influence consumer behaviour such as trust, utilitarian, and hedonic values etc. Hence TPB can provide more accurate explanation than TAM.

2) TAM excludes social norm and assumes that social norm would have already been considered to some extend in the evaluation of outcomes (Mathieson 1991). TPB consider social norm as an important factor as some of the decision that an online consumer takes would be based on the recommendation from relatives, friends etc.

3) TPB introduces perceived behavioural control (PBC) is defined as the perceived ease or difficulty of performing a behaviour and a personal sense of control over performing it (Ajzen and Madden 1986).

Most of the studies on the e-commerce setting has been studied using TAM or TRA. The key assumptions are that behavior is volitional, however online consumer behavior is not linear and

constraints such as impersonal nature of the online environment, the extensive use of IT, and the uncertainty of the IT infrastructure etc. These issues are intrinsic in nature and hence incorporation of perceived behavior control (PBC) is of utmost importance and usage of TPB model over TRA or TAM models. As suggested by Mathieson (1991) TAM and TPB could be modelled together to study and get deeper insights on online consumer behavior. Researchers suggest that TAM is a parsimonious model and TPB can get more specific information. TPB can be built as a solid research model in understanding online consumer behavior. Inclusion of TAM with TPB can very well throw insights on the effects of information systems on online consumer behavior. A unified model that explains e-shopping must be studied on sound theoretical fundamentals. A synthesis of Integrated IS-CB model for e-shopping to provide a holistic view is of utmost importance. Dennis et al (2009) propose to solidifying a new theoretical model through the lens of theory of reasoned action (TA) (a CB viewpoint), technology acceptance model (TAM) (An IS viewpoint) and uses and gratification theory (U&G) (an IS viewpoint) .The TAM (Davis, 1989) with its basics in the TRA Ajzen (1991) has emerged as a powerful model in investigating the acceptance and usage of IS and its relationship to TRA has been discussed extensively in the literature (Davis,1989: Keil et al.,1995; Roger, 1995).

Two main streams of work have happened namely the technology acceptance model (TAM) used mostly in information systems and theory of planned behavior (TPB). We have also done a comparative study on comparison between TAM and TPB which clearly highlights that both are complementary to each other and an amalgamation of both the models will throw more knowledge into the body of literature.

2.7 Some Major antecedents to online consumer behavior

Some of the major antecedents identified in the literature review are as follows. demographics, personality, product/services type and characteristics, online service quality, website quality, brand –effect, internet experience, online shopping experience, social normative beliefs, shopping orientation, shopping motivation, ease of use, usefulness of website, trust and perceived risk, economic value of online shopping, emotions, and flow etc. (Cheung et al. 2005, Zhou et al 2007).

Online consumer behavior is a vast subject to study and its amalgamation of many antecedents which are built up to arrive at purchase decisions. Researchers build up models using parsimonious principles and select few major antecedents to get higher validity and reliability. Research questions determine the selection of limited number of antecedents in research models. In this study four major antecedents to online consumer behavior are integrated they are TAM beliefs, trust and perceived risk, flow, and economic value of e-commerce.

2.7.1 Economic value for online consumer behavior

Generally, the belief of online consumer is the availability of products and services are relatively cheaper prices from the market and the convenience in the shopping. Reduction of cost and time saving has economic value of e-commerce and important components of transactions costs in micro-economics. TCT (transaction cost theory) was studied by (Liang and Huang 1998) in e-commerce setting. Assumption was that a customer would buy online was determinant of the transaction cost of the channel and the transaction cost of a product on the web was determined by the uncertainty and asset specificity. Experienced shoppers were concerned more about the uncertainty and inexperienced shoppers were concerned with both. In one of the studies by Teo et

al. (2004) the outcome was the lower cost was one of the main reasons that consumers purchased online and that consumers adopted online shopping because of reduction of time spend on searching for product information. Empirical studies done by Devaraj et al (2002) found that cost reduction and time saving were the quantifiable benefits to online consumers and also, they concluded that cost reduction and time saving were important antecedents to online consumer behavior. These studies were the out of the integration of TAM, TCT (Transaction cost theory (TCT) and service quality (SERVQUAL). Higher prices lead to lower price satisfaction Cao et al (2003). Economic value has no significant positive impact on customer satisfaction even though the socio-psychological value (Ex: Online shopping enjoyment and convenience) and the product value (Ex: product quality) significantly contributed to the attainment of customer satisfaction.

2.7.2 Flow for online consumer Behavior

Flow is the state in which people are so involved in an activity that nothing else seems to matter. To be in a flow state, a person must be motivated intrinsically to do the activity, or autotelic, or self-goal (Csikszentmihalyi 1975, 1990) to be in flow state. Other than autotelic the activity should be challenging and required skill. If the perceived challenge is greater than the skill there will be anxiety vice versa there will be boredom, and this challenges the flow. Flow theory is one of the major theories used to study and address optimal user in computer mediated environment, however in the finding there are many discrepancies and inconsistencies (Finneran and Zhang 205). Studies in the past show that flow is a useful construct for describing the behavior of the consumer's users (Ghani et al 1991). In the studies of online consumer behavior experience of flow leads to positive user behavior and learning process (Pace 2004). Perceived sense of control, subjective experience

are also benefits of flow and flow could affect outcomes such as navigation patterns and repeat visits (Siekpe 2005).

Few researchers including (Koufaris 2000) integrated flow with TAM for examining emotive and cognitive responses and to see how the consumer comes for repeat purchases and does unplanned buying. He concluded that the online consumer was both shoppers and computer users. Enjoyment of shopping and perceived usefulness of the website influenced the intention to return more frequently. Studies also confirm that flow happens in both planned and unplanned buying behavior. Online buying experience is the outcome of a consumer's attitudes towards a firm's website ad its brand's appeared enhanced when consumers get an enjoyable experience. navigational factors, skill available and the degree of decision control are the key factors that's perceived by the consumer (Mathwick and Rigdon 2004). In the most used models like TAM, TRA or TPB trust and perceived along with flow was introduced as an antecedent to online consumer behavior. Flow always played the role of intrinsic motivation. Research has concluded that flow which was conceptualized as fashion and cognitive absorption (Intrinsic motivation) were more important than their extrinsic factors such as perceived usefulness in explaining online consumer behavior (Shang et al. 2004). Website quality and consumer behavior were tested for consumer behavior by (Ahn et al 2007) and the findings were playfulness played an important role in enhancing user attitude and behavior intention to use a website, also website quality had a significant impact on the perceived ease of use, playfulness, and usefulness and all these accelerates online consumer behavior. There is no separate consistent flow model in the research (Finneran and Zhang 2005) however playfulness, joyfulness, concentration etc. has been conceptualized and operationalized in many studies. Some of the studies tries to look for antecedents to flow. (Guo and Poole 2006) studied website complexity of on flow during web surfing and shopping. Results showed that

website complexity affected flow through mediating effects of three antecedents of flow and finally determined online consumer behavior. The noted three antecedents were perceived challenge, goal clarity and quick unambiguous feedback. For studying flow, it has to be applied effectively and contextualized and operationalized (Novak et al 2000) suggest thirteen constructs which can describe and measure flow, however most of the studies in the online consumer behavior space studies an average of four constructs.

2.7.3 Trust and perceived risk for online consumer behavior

Trust and risk are intertwined, and both are perception based (McAllister 1995, Hawes et al.1989). Trust is more important factor in online since it lacks complete seller identity and high probability of cheating (Bailey and Bakos 1997, Ba and Pavlou 2002) also it lacks prominent social cues of using sensory organs, word of mouth and body language (Gefen 2002). Slow responses, and no people interaction makes consumer uncomfortable and thereby arouses the fear of losing privacy or money transacted (Cho 2006). Some of the researchers in the past (Jarvenpaa et al, 2000, Heijden et al. 2001) argued and found that lack of trust is one of the key factors that prevented consumers from engaging in online transactions. Key outcomes of their studies were as follows.

a) E-commerce shopping intentions was strongly determined by attitude towards shopping.
b) Trust in the company didn't influence attitude directly, but indirectly through a significant impact on perceived risk.
c) Perceived reputation influenced trust, whereas perceived size did not.
d) Website ease of use strongly and positively influenced website usefulness.

e) Website usefulness didn't significantly influence attitude towards shopping and online purchase intentions.

f) Perceived risk has significantly influence on consumer behaviour.

g) Perceived risk reduces consumer intention to engage in online transactions.

Trust oriented models were more appropriate than website-oriented models for explaining online purchase intentions (Heijden et al, 2001). Another element which influences buyer-seller relationships is perceived risk (Chiles and Mc Macking 1996). Trust has positive impact and perceived risk has negative impact on online consumer behavior. Perceived risk is high and reduces consumer intention in online consumer behavior (Reichheld and Schefter 2000; Pavlou and Gefen 2004). Perceived risk is either antecedents or mediators or both in most of the IS literature and the commonly used theories were TAM (Technology acceptance model), TRA (theory of reasoned action), TPB (theory of planned behavior), IDT (Innovation Diffusion theory), CTT (Commitment-Trust Theory). Stewart (2003) studied the consumer behavior cognitive process consumer transfers trust to organization and then to e-commerce site. Mainly trust was derived from the perceived interaction, consumers feel familiarity of the linked organization and more comfortable when the products brought have offline presence. Kaun and Bock (2007) studied and empirically found that word-of–mouth, offline trust, and expected sanctioning played important roles in forming online trust. Miyazaki and Fernandez (2001) also indicated that internet experience may help consumers reduce risk perception and in turn increase shopping in e-commerce setting. Many other studies also suggest that trust helps reduce perceived risk and social uncertainty among inexperienced online customers (Jarvenpaa et al.2000). Personal information security and privacy has been a major hurdle in online shopping (Miyazaki and Fernandez 2001).

2.7.4 Behavioral Intentions and Actual behavior

TPB Suggest that behavioral intention is the most influential predictor of behavior and behavioral intentions are motivational factors that capture how much effort a person is willing to dedicate to perform a behavior (Ajzen 1991). In one of the studies done by Sheppard et al. (1998) using meta-analysis revealed that there was an average correlation of 0.53 between intentions and behavior which necessarily meant that Intention toward online purchasing is significantly related to actual purchasing behavior.

2.7.5 Attitude and Behavioral Intentions

Relationship between consumer attitude and behavioral intention is highly correlated and has received substantial empirical support. (Ajzen and Fishbein 1980) mentions that attitude influences behavioral intentions also its defined as the overall evaluation of the desirability of a potential transaction with a specific online vendor (Pavlou and Fygenson 2006). Encouraging consumers to search information, make purchase decision and conduct online monetary transactions is the outcome of a favorable attitude towards online purchasing.

Major factors that significantly influences on attitudes toward online consumption were,

- Perceived usefulness (PU) & Perceived ease of use (PEOU) (Gefen et al. 2003).

- Trust and Perceived risk (Pavlou 2003).

- Flow (Ahn et al. 2007).

- Emotion (Huang 2003).

- Economic value (Lee et al. 2003).

Except for emotions all other factors are included in the model.

2.7.6 Subjective Norm and Behavioral Intentions

Subjective norm (SN) is described as a person's normative belief that his/ her behavior is accepted, encouraged, and promoted by his/her social circle of influence. Many studies suggest that there is a positive correlation between subjective norms and behavioral intentions. Evaluative beliefs and attitudes are not only driven by individual behavior but also by subjective norms, perceived behavioral control and habits. This is also a part of social psychology studies (Hubona & Burton – Jones 2006). Some of the finding of the earlier studies shows strong relations between subjective norms and Behavioral intentions. Studies conducted on online brokerage services found out that subjective norm was an important predictor Bhattacharjee (2000).

2.7.7 Perceived Behavioral control, Behavioral Intentions and Actual behavior

TPB Extends TRA (Fishbein and Ajzen 1975) by including perceived behavioral control (PBC). TRA proposes that actual behavior is a motivational result of behavioral intentions without factoring the behavioral constraints that may occur between intention and behavior. Examples can be low internet speed, Inconvenience in understanding the website, difficult navigation etc. can influence actual behavioral control. Hence PBC refers to an individual's perception of how easy or difficult it is for him to perform a behavior and it reflects beliefs regarding access to resources and opportunities required to facilitate a behavior (Ajzen 1991, 2002b) also PBC denotes a subjective control over the performance of a behavior but not the perceived likelihood of behavioral outcome. Hence PBC is very important and should be included in the study of online consumer behavior for its completeness and avoid misleading (Pavlou and Fygenson 2006).

PBC has two distinct dimensions: Self efficacy (SE) and controllability (Trafimow et al. 2002). Fygenson (2006) conceptualized SE and construability in the e-commerce context as follows. Definition of SE- Describes consumer's judgements of their own capabilities to conduct online consumption. Definition of controllability –describes consumer's judgement about the availability of resources and opportunities to perform online consumption.

Most of the studies on the e-commerce setting have been studied using TAM or TRA. The key assumptions are that behavior is volitional, however online consumer behavior is not linear and constraints such as impersonal nature of the online environment, the extensive use of IT, and the uncertainty of the IT infrastructure etc. These issues are intrinsic in nature and hence incorporation of Perceived behavior control (PBC) is of utmost importance and usage of TPB model over TRA or TAM models. As suggested by (Mathieson 1991) TAM and TPB could be modelled together to study and get deeper insights on online consumer behavior. Researchers suggest that TAM is a parsimonious model and TPB can get more specific information. TPB can be built as a solid research model in understanding online consumer behavior. Inclusion of TAM with TPB can very well throw insights on the effects of information systems on online consumer behavior.

Some of the major antecedents identified in the literature review are as follows

Demographics, personality, product/services type and characteristics, online service quality, website quality, brand –effect, internet experience, online shopping experience, social normative beliefs, shopping orientation, shopping motivation, ease of use, usefulness of website, trust and perceived risk, economic value of online shopping, emotions, and flow etc. (Cheung et al. 2005, Zhou et al 2007). Online consumer behavior is a vast subject to study and its amalgamation of many antecedents which are build up to arrive at purchase decisions. Researchers build up models using parsimonious principle and select few major antecedents to get higher validity and reliability.

44

Research questions determine the selection of limited number of antecedents in research models. In this study four major antecedents to online consumer behavior are integrated they are TAM beliefs, trust and perceived risk, flow, and economic value of e-commerce.

Chapter III: Methodology

3.1 Overview of the Research Problem

India is the eighth largest market for e-commerce with a revenue of US$50 billion in 2020. Unity in diversity is what makes India unique from rest of the world and therefore much more complexity in doing e-commerce business. Each state in India is like a country by itself with its unique people, process, languages etc. with its 150-crore population India will be a biggest and attractive e-commerce market. IBEF- 2020 predicts that by 2034 India will overtake US and will have ~ 50% growth rate which will be highest in the world. With high internet penetration and digital payments surge, India will become a trillion-dollar economy by 2025. India has attracted major investments in the e-commerce sector with all the biggies in this space is investing heavily. A great proof of government encouragement has given birth to 5000 Startups. With this hyper competition most of the e-commerce giants in the future will face tough challenges to increase consumer traffic to the portal and at the same time service and retain them. With millions of products and services it will become furthermore challenging to manage inventory, sell at the right price, manage cost, and most importantly retain customer for repeat purchases. Another important aspect of the future evolving e-commerce portals would be to innovate consistently, redraw strategies to attract customers, do value add upselling, provision to incorporate latest technologies, Reach consumers at significant lower cost, and manager a profitable ROI.

To address the above challenges understanding of online consumer behavior is of utmost importance, understanding at the aggregate level is important but more important is to dissect and understand each component and process involved in purchase decisions. Jeong et al (2009) mentions that it's important for the marketers to develop a better understanding of e-shoppers.

Zhou et al (2007) clarifies that both academics and online retailers must understand the antecedents of consumer acceptance of e-shopping. Dennis et al (2009) mentions that though lot of work has been done on this area and bodies of literature has examined e-shopping factors and issues still there are significant gaps in terms of understanding the consumer behavior and the use of information system Dennis et al (2009). Most of the study is in piece meal or skewed towards either focus on information system antecedents or towards Consumer behavior antecedents. Empirical evidence and Literature reviews suggest that there is not a single model which can explain the antecedents in the process of e- shopping keeping Information system and consumer behavior process in consideration. A unified model that explains e-shopping must be studied on sound theoretical fundamentals. A synthesis of Integrated IS-CB model for e-shopping to provide a holistic view is of utmost importance. Dennis et al (2009) propose to solidify a new theoretical model through the lens of theory of reasoned action (TA) (a CB viewpoint), technology acceptance model (TAM) (An IS viewpoint) and uses and gratification theory (U&G) (an IS viewpoint).

3.2 Operationalization of Theoretical Constructs

The questionnaire is developed for the measurement of TPB, Tam constructs, trust and perceived risks, flow, and economic value. All measurements use 7-point scale for a yes/ no question for actual behavior.

3.2 Measurements of TPB constructs

Behavior, intention, attitude, subjective norm, and perceived behavioral control are hypothetical or latent variables and thus they cannot be directly observed but must instead be inferred from observable responses or by means of self-reports (Ajzen 200). Hence the subjects are asked to

report their previous purchase experiences and behaviors. Ajzen (2002a) Behavior of interest is defined in terms of its Target, Action, Context and Time (TACT) elements. Defining TACT elements are more arbitrary. The subject under study is online consumer, online portal and vendors and this survey has to be completed within six months after the purchase and behavioral intentions were assessed. TACT elements were developed on two elements. (Ajzen 2002a).

1) The principal of compatibility - Attitude, Subjective norm, perceived behavioural control and intention to be defined in terms of the same elements.

2) The principal of specificity and generality – Suggest that it is possible to increase the generality of one or more elements by means of aggregation. This study measures all four TACT elements at general level.

The participants were generally asked if they had purchased during a certain period, they were not asked what they brought, at what e-commerce website they shopped nor they were asked what they did in each online shopping stage.

The variable and their authors have been mentioned in the below table.

Sr no	Variables	Researcher name
1	Online consumer behavior	Pavlou and Fygenson 2006
2	Intention to online purchase	Pavlou and Fygenson 2006
3	Attitude towards online purchase	Pavlou and Fygenson 2006
4	Subjective Norm	Pavlou and Fygenson 2006
5	Controllability	Pavlou and Fygenson 2006
6	Perceived Behavioral control	Pavlou and Fygenson 2006
7	Self-efficacy	Pavlou and Fygenson 2006
8	Perceived ease of use	Gefen et al.2003
9	Perceived usefulness	Gefen et al.2003
10	Trust	Pavlou 2003
11	Perceived risk	Jarvenpaa et al.2000
12	Concentration	Ghani et al 1991
13	Shopping enjoyment	Ghani et al 1991
14	Time distortion	Novak et al 2000
15	Telepresence	Novak et al 2000
16	Time saving	Keeney 1999
17	Cost reduction	Keeney 1999

Source: Compiled from literature review

Online consumer behaviour construct consist of the following variables

1) Online consumer behaviour

2) Intention to purchase

3) Attitude towards purchase

4) Subjective Norm

5) Controllability

6) Perceived behavioural control

7) Self efficacy

Measurement of TAM constructs consist of the following variables.

1) Perceived ease of use

2) Perceived usefulness

Measurement of Trust and perceived risk

1) Trust

2) Perceived risk

Measurement of Flow constructs

1) Concentration

2) Shopping Enjoyment

3) Time Distortion

4) Telepresence

Measurement of Economic value

1) Time Saving

2) Cost reduction

3.3 The following Extended Theroy of planned behavior

The Extended Theory of Planned Behaviour model

Economic Value
- Time Saving
- Cost Reduction

PU of Purchasing

PEOU of Purchasing

FLOW
- Concentration
- Enjoyment
- Time Distortion
- Tele Presence

Trust

Perceived Risk

Attitude toward Purchasing

Subjective Norn

Intention to purchase

Controllability (Purchasing)

Self – Efficacy (Purchasing)

PBC (Purchasing)

Purchasing behaviour
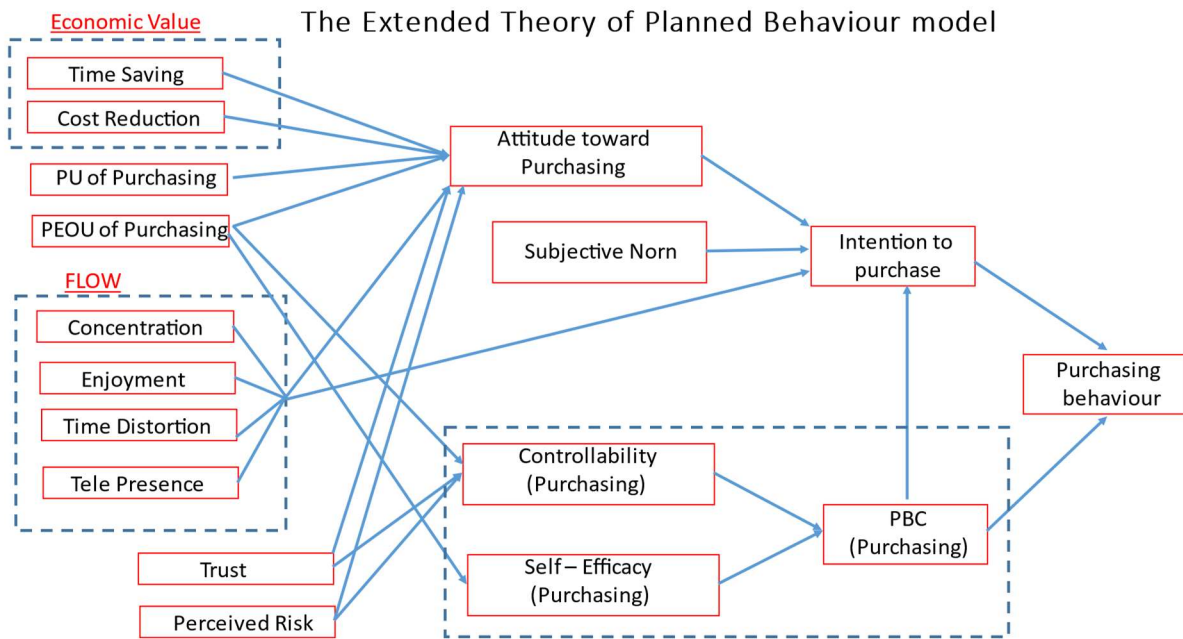
Source: Online consumer behavior: Lincoln Nebraska

3.4 Research Purpose and Questions

The thoughts of researcher that online consumer behavior is same as offline consumer behavior is no more valid. The assumption that if only technology is good then sales will happen in the e-commerce platform is also not true as technology is only a hygiene and without proper technological innovations e-commerce platforms will be an utter failure. Technology over a period has evolved and it will evolve further as per the technological evolutions. Technology changes human behaviors and hence there is a great challenge in front of all the e-commerce portals to constantly evolve and align with the ever-changing online consumer behavior. With the world moving towards industry 5.0 the amalgamation of human beings with technology will add on to

the challenges of the way the consumer will buy products and services. Starting from customer acquisition to customer retention will follow completely different routes and each consumer will have a different journey which needs to be mapped as a process. Every consumer will be different hence Segmenting, Targeting and Positioning (STP) must be different. Cluttered e-commerce portals offering the same services and products will drastically increase and hence differentiator is the key for success. Online purchases are impulsive or planned is the question that researcher always ask. The second question researchers ask is the process that a consumer follows when he wants to buy, However the answer is not linear as it involves very complicated social-technical phenomenon. Many researchers have spent huge amount of time to analyze this phenomenon and have added many antecedents to the body of literature. Various researchers over a period have added knowledge from various disciplines with contradictory views because of different assumptions peculiar to subject of the discipline (Bellman et al.2006; Zhou et al.2007).

Cheung et al (2005) states that studies appear to be fragmented and hence lack of unifying theoretical framework build up is missing probably the scope of the study is too broad. A coherent model for understanding mixed findings on consumer acceptance of e-commerce is lacking (Zhou et al.2007). Many factors that affect online consumer behavior are not adequately explored while assuming that it will be like offline brick and mortar stores will completely misguide the research progress (Koufaris 2002; Detlor et al, 2003). Risk of unknown, risk of losing money, risk of choice, lack of trust, Time pressure, Lack of privacy, tough user interface, changing technology adaption, Modern discount structures etc., are the new challenges that online consumer will face.

The objective of this study is to test the above integrated model in the Indian context and try to find out the below queries and add value to the body of study of online research.

1) Test a model called extended theory of planned behaviour which has got a broader and comprehensive perspective in Indian context. The model under consideration has been built upon solid theoretical foundation with clear focus on consumer behavioural perspectives.

2) Empirical evidence is provided to test link between the major factors and online consumer behaviour and establish the relative roles of important factors.

3) Finding the right determinants and its impact on online consumer behaviour and explain the inconsistent findings of the previous studies.

4) Check the model fit and find out the consistent and inconsistent determinants with the previous researchers.

5) Find out the most important antecedents that enables online buying behaviour and map them in ascending order.

6) Check the added antecedents integrated into this model from TPB and TAM and check its significant role in online consumer behaviour.

7) Study and compare how the extended theory of planned behaviour behaves in different age groups.

8) To understand the most significant determinants which make a particular e-commerce platform successful.

3.5 Research Design

This session cover briefly the overview of the research design and data collection, Introduction of key variables, data collection, techniques used for data analysis etc. Conceptual model is developed by extending theory of planned behavior and major antecedent's factors are introduced which have been believed to have important influences on online consumer behavior.

The model chosen is TPB based conceptual model and falls on the positive paradigm of consumer science and could examine online consumer behavior from economic, behavioral, cognitive, attitudinal, situational, motivational, and social influential perspectives and takes care of IT beliefs and hence key variables which impacts online consumer behavior (Jarvenpaa et al. 2000; McKnight and Chervany 2002; Gefen et al. 2003; Pavlou2003).

Online consumers are consumers and at the same time they are active IT users and hence many times determinants of IT take the center stage (Stewart and Pavlou 2002). Online consumer primarily gets influenced by IT usage rather than marketing issues and hence it's more accurate to view online shopping as an IS phenomena where the consumers interact with an information system (Koufaris 2002). This comprehensive model has got all the variables which is required for understanding consumer behavior.

Behavior, intention, attitude, subjective norm, and perceived behavioral control are hypothetical or latent variables and thus they cannot be directly observed but must instead be inferred from observable responses or by means of self-reports (Ajzen 200). Hence the subjects are asked to report their previous purchase experiences and behaviors.

Ajzen (2002a) Behavior of interest is defined in terms of its Target, Action, and Context and Time (TACT) elements. Defining TACT elements is more arbitrary. The subject under study is online consumer, and this survey must be completed within two - three months after the purchase and behavioral intentions were assessed. TACT elements were developed on two elements. (Ajzen 2002a).

1) The principal of compatibility - Attitude, Subjective norm, perceived behavioural control and intention to be defined in terms of the same elements.

2) The principal of specificity and generality – Suggest that it is possible to increase the generality of one or more elements by means of aggregation. This study measures all four TACT elements at general level.

The participants will be generally asked if they had purchased during a certain period, they were also asked what they brought, which e-commerce portal they shopped etc.

3.6 Population Sample, participant selection & Data Collection procedures

Seventeen variables have been included in this survey which has been incorporated after the literature review with 52 Questionnaires. The sampling procedure would be random sampling across all states of India. Sample size is 223. The questionnaire was sent through direct mailers and what's app groups. Nearly 2000 people were contacted through google docs over a period of two months and got the above responses. However, few people complained that the questionnaire was long, and it took considerable amount of time to fill them. Two reminders were sent each month to ensure maximum participation.

3.7 Instrumentation

Extended theroy of planned behavior model has seventeen variables which covers most of the important variables related to online consumer behavior. These variables are tested mostly in different times and in different context. These questionaires are taken from the studies of seven researchers and assembled in the model. The question were all likert scale with few personal questions.

3.8 Data Analysis

Online assessment through google drive was used for data collection. For analytics a combination of SPSS and SMART PLS tool were used. The partial least squares (PLS) (Wold 1974 and 1985) were used to analyze the complete survey dataset. PLS uses a component - based approach for estimation purposes (Lohmoller 1989) and can manage both reflective and formative structure. PLS overcome the disadvantages of Structural equation modelling (SEM) by placing minimal restrictions on measurement scales, sample size and residual distributions (Chin et al. 2003).

PLS have been successfully in various research areas including marketing, strategic management, information systems, management science, social psychology etc. (Fornell, Lorange and Roos 1990; Pavlou and Fygenson 2006). Researchers in most of the above areas had situations where their model required a large number of observed variables, however the number of respondents may be lower or may be unrealistic to collect large samples which is required for SEM analysis.

Hair et al. (2019) suggests When to use PLS.

1) Testing a theoretical framework from a prediction perspective

2) When the model is complex with many indicators and variables

3) To test theoretical models and to understand complexity

4) Exploratory research for theory development

5) When the sample size is small

6) When distribution issues are co concerned

The sample size is determined by the block with the largest number of formative indicators and the dependent latent variable with the largest number of independent latent variable impacting it (Barclay et al1995). The model under testing has two formative indicators and the largest number

of independent variables that impact the dependent variable is 10. Therefore, the minimum sample required is 100 and the collected sample is 223 which should be large enough to capture the largest number of causal relationships in a structural path model (Chin et al.2003).

3.9 Research Design Limitations and Conclusion

More variable could have been added into the structural model however it would have been a tough task to integrate and come to conclusion even to check the model fit would have been difficult. A model which can study the complete online consumer buying behaviour will throw more light on the theory and practice. A consumer journey mapping from Interest arousal to selling and payment and then repeat purchases should be addressed keeping a holistic view. Since this type of is first of its kind in the Indian context a good build can be done based on this study.

Chapter IV: Questionaire & Results

The following questionaire was adminstered through google doc. It has two parts. Part- I consist of general information and Part- II consist of varibles for model testing.

4.1 Research Questionnaire

PART - I Questions on Demographics		
Questionaire	**Demographics / Likert Scale**	**CODING**
Age	< 20	1
	20-24	2
	25-29	3
	30-34	4
	35-39	5
	>40	6
Gender	Male	1
	Female	2
Marital status	Married	1
	Unmarried	2
	Single	3
Number of dependents	0	0
	1	1
	2	2
	3	3
	4	4
	>5	>5
How many years of Internet surfing experience do you have	< 1 year	1
	1-2 Years	2
	3-4 Years	3
	5-6 Years	4
	>6 years	5
How often do you buy products and or services on the internet	Daily	1
	Weekly	2
	Forth nightly (15 Days)	3
	Monthly	4
	Bi – Monthly	5
	Quarterly	6
	Half yearly	7
On an average, how many hours do you spend on using the internet per week	Less than 5 hours	1
	6-10 hours	2
	11-15 hours	3
	16-20 hours	4
	21-25 hours	5
	Over 25 hours	6
Most Preferred of E-commerce website	Amazon	1
	Flipkart	2
	Snap deal	3
	Jabong	4
	India Mart	5
	Myntra	6
	Book my show	7
	Shop clues	8
	Big basket	9
	Nykaa	10
	IRCTC	11
	Reliance Retail	12
	Others	13

PART - I Questions on Demographics		
Questionaire	Demographics / Likert scale	Coding
How much formal education have you completed (Tick highest level)	Only Graduation (BA, B com, BSc)	1
	Undergraduate	2
	Post-graduation (MA, M Com, M Sc)	3
	Three years engineering Diploma	4
	B Tech / B.E	5
	M Tech/ M.E	6
	One /Two-year Diploma in Business management	7
	MBA/ MMS or equivalent qualification	8
	PhD	9
Average Monthly Income	Less 25,000 per month	1
	25,001 – 75,000	2
	75,001– 1, 25,000	3
	1, 25,001 – 1, 75,000	4
	1, 75,001 – 2, 25,000	5
	2, 25,001 – 2, 75,000	6
	2, 75,001 - 3, 25,000	7
	Greater than 3, 25,001	8
	Dependent – Studying. Retired etc.	9

PART – II Questions on online shopping experience		
Questionaire	Scale	Coding
During the last one month I purchased a product / service from an e-commerce website	Yes	1
	No	2
During the last one month I purchased	Book	1
	Grocery	2
	Movie/ Music / Game	3
	Electronics and Computers	4
	Sport / Outdoor	5
	Health / Beauty	6
	Apparel/ Shoes / Jewels	7
	Holidays	8
	Decoration	9
	Food Items	10
	Software	11
	Tickets, Hygiene Items	12
	Service	13
	Others	14

PART – II Questions on online shopping experience - Contd..		
Questionaire	Scale	Coding
I intended to purchase a product from e-commerce website before I actually made purchase	Extremely Unlikely Unlikely Somewhat Unlikely	IOP_1
I planned to purchase a product from an e-commerce website before I actually made purchase	Undecided Somewhat Likely Likely Very Likely	IOP_2
For me, purchasing a product from an e-commerce website in the last one month would be (Very bad idea/ very good idea)	Very Bad Idea Bad Idea Somewhat Bad Idea Neutral Somewhat Good idea Good idea Very good idea	ATP_1
For me, purchasing a product from an e-commerce website in the last one month would be (Very undesirable/ Very Desirable)	Very Undesirable Un Desirable Somewhat undesirable Neutral Somewhat desirable Desirable Very Desirable	ATP_2
Most people who are important to me think that it is fine to purchase a product from an e-commerce website	Not at all True untrue Somewhat untrue	SUBNORM_1
Most people who are important to me would purchase a product from e-commerce website	Neither Untrue Nor true Somewhat True TRUE Completely true	SUBNORM_2
All necessary resources for purchasing a product from an e-commerce website will be accessible to me within the last one month	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	CONTROL_1
Purchasing product from an e-commerce website will be completely under my control within the last one month	Somewhat agree Agree Strongly Agree	CONTROL_2
Please rate the difficulty of you purchasing a product from an e-commerce website. (extremely difficult / extremely easy)	Extremely Difficult Difficult Somewhat Difficult Neither difficult Nor easy Somewhat Easy Easy Very Easy	PERBEHCON_1
If I wanted to, I would be able to purchase a product from an e-commerce website	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	SELFEFFICACY_1
If I wanted to, I was confident I could purchase a product from an e-commerce website	Somewhat agree Agree Strongly Agree	SELFEFFICACY_2
It is easy to become skillful at the e-commerce website where I made purchase	Extremely Unlikely Unlikely Somewhat Unlikely Undecided	PEOU_1
Learning to operate the e-commerce website where I made purchase is easy	Somewhat Likely Likely Very Likely	PEOU_2
The e-commerce website where I made purchase is flexible to interact with	Strongly Disagree Disagree Somewhat disagree	PEOU_3
My interaction with the e-commerce website where I made purchase is clear and understandable	Neither agree nor Disagree Somewhat agree Agree Strongly Agree	PEOU_4

Questionaire	Scale	Coding
PART – II Questions on online shopping experience - Cont..		
The e-commerce website where I made purchase improves my performance in product searching and buying		PU_1
The e-commerce website where I made purchase enabled me to search and buy products faster	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	PU_2
The e- commerce website where I made purchase enhanced my effectiveness in product searching and buying	Somewhat agree Agree Strongly Agree	PU_3
The e- commerce website where I made purchase increases my productivity in searching and purchasing products		PU_4
The e-commerce website where I made purchase is trustworthy		TRUST_1
The e-commerce website where I made purchase is one that keeps promises and commitments	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	TRUST_2
I trust the e-commerce website where I made purchase because it keeps my best interest in mind	Somewhat agree Agree Strongly Agree	TRUST_3
How would you characterize the decision to buy a product from the e-commerce website where you made purchase	Significant Risk Risk Somewhat Risk Neither opportunity Nor risk Somewhat Opportunity Opportunity Significant Opportunity	PERRISK_1
How would you characterize the decision to buy a product from the e-commerce website where you made purchase	High Potential for Loss Loss Somewhat Potential for loss Neutral Somewhat potential for Gain Gain High Potential for gain	PERRISK_2
How would you characterize the decision to buy a product from the e-commerce website where you made purchase	Very Negative situation Negative situation Somewhat Negative Neither positive Nor Negative Somewhat Positive Positive situation Very Positive situation	PERRISK_3

PART – II Questions on online shopping experience - Cont..		
Questionaire	**Scale**	**Coding**
During my last visit to the e-commerce website I was absorbed intensely in the activity		CON_1
During my last visit to the e-commerce website My attention was focused on the activity	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	CON_2
During my last visit to the e-commerce website I concentrated fully on the activity	Somewhat agree Agree Strongly Agree	CON_3
During my last visit to the e-commerce website I was deeply engrossed in the activity		CON_4
During my last visit to the e-commerce website, I found my visit interesting		SHOPEN_1
During my last visit to the e-commerce website, I found my visit enjoyable	Strongly Disagree Disagree Somewhat disagree Neither agree nor Disagree	SHOPEN_2
During my last visit to the e-commerce website, I found my visit exciting	Somewhat agree Agree Strongly Agree	SHOPEN_3
During my last visit to the e-commerce website, I found my visit fun		SHOPEN_4
Time seemed to go by very quickly when I used the e-commerce website	Strongly Disagree Disagree Somewhat disagree	TIMEDISTOR_1
When I used the website, I tended to lose track of time	Neither agree nor Disagree Somewhat agree Agree Strongly Agree	TIMEDISTOR_2

PART – II Questions on online shopping experience - Cont..		
Questionaire	Scale	Coding
I forget about my immediate surroundings when I uses the e-commerce website		TELEPRESENCE_1
Using the e-commerce website often made me forget where I as	Strongly Disagree Disagree	TELEPRESENCE_2
When I used the e-commerce website, I felt I was in a world created by the website I visited	Somewhat disagree Neither agree nor Disagree Somewhat agree Agree	TELEPRESENCE_3
After using the e-commerce website, I felt like I came back to the "real world" after a journey	Strongly Agree	TELEPRESENCE_4
When I used the e-commerce website, the world generated by the website I visited was more real for me than the "real world"		TELEPRESENCE_5
Online Shopping reduces queuing time		TIMESAV_1
Online shopping reduces time to find product	Strongly Disagree Disagree	TIMESAV_2
Online shopping reduces communication time	Somewhat disagree Neither agree nor Disagree	TIMESAV_3
Online shopping reduces product comparison time	Somewhat agree Agree	TIMESAV_4
Online shopping minimizes purchase time	Strongly Agree	TIMESAV_5
Online shopping reduces product / Service cost	Strongly Disagree Disagree	COSTRED_1
Online shopping reduces shipping cost	Somewhat disagree Neither agree nor Disagree	COSTRED_2
Online shopping reduces travel time	Somewhat agree Agree Strongly Agree	COSTRED_3

4.2 Summary of Findings

Descriptive Statistics – SPSS

AGE				
Age grouping	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Less than 20	6	2.7	2.7	2.7
20-24	12	5.4	5.4	8.1
25-29	25	11.2	11.2	19.3
30-34	32	14.3	14.3	33.6
35-39	37	16.6	16.6	50.2
Greater than 40	111	49.8	49.8	100
Total	223	100	100	

Total respondents were 223 of which greater than 30 years of age constituted ~ 81%. Most of the

respondents were mature and regular buyers.

Gender				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Female	54	24.2	24.2	24.2
Male	169	75.8	75.8	100
Total	223	100	100	

Married respondents were ~ 82%.

Surfing Experience				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Less than 1 year	2	0.9	0.9	0.9
1-2 Years	14	6.3	6.3	7.2
3-4 Years	13	5.8	5.8	13
5-6 Years	194	87	87	100
Total	223	100	100	

87% of the respondents had 5-6 years of internet surfing experience. This necessarily means that they have seen the e-commerce growth and explosion and calibration of e-commerce portals over the years.

Purchase Frequency				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Daily	18	8.1	8.1	8.1
Weekly	60	26.9	26.9	35
Fortnightly	24	10.8	10.8	45.7
Monthly	52	23.3	23.3	69.1
Bi- Monthly	15	6.7	6.7	75.8
Quarterly	38	17	17	92.8
Half Yearly	16	7.2	7.2	100
Total	223	100	100	

70% of the respondents purchased- at least once in a month. 45% purchasing fortnightly, weekly and daily. Their feedback about the questionnaire will be more genuine and realistic. Most of the studies earlier were done on college students and captive audience which could be more unrealistic.

Hours Per week spend on Internet				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Less than 5 Hours	54	24.2	24.2	24.2
6-10 Hours	41	18.4	18.4	42.6
11-15 Hours	26	11.7	11.7	54.3
16-20 Hours	26	11.7	11.7	65.9
21-25 Hours	13	5.8	5.8	71.7
Over 25 Hours	63	28.3	28.3	100
Total	223	100	100	

75 % of the respondents spend more than 5 hours in a month the background of the respondents was genuine, and they understand the challenges and issues faced by them during the buying process.

Preferred ecommerce				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Amazon	156	70	70	70
Flipkart	28	12.6	12.6	82.5
Myntra	11	4.9	4.9	87.4
Book my Show	1	0.4	0.4	87.9
BigBasket	11	4.9	4.9	92.8
Nykaa	3	1.3	1.3	94.2
IRCTC	2	0.9	0.9	95.1
Reliance Retail	2	0.9	0.9	96
Others	9	4	4	100
Total	223	100	100	

~70% of the respondents preferred Amazon with the next 12% respondents preferred Flipkart. Amazon stands far ahead than any other e-commerce website rather miles ahead. The top of the brand recall makes it number one.

Qualification				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Graduation	39	17.5	17.5	17.5
Undergraduate	13	5.8	5.8	23.3
Postgraduate	32	14.3	14.3	37.7
Diploma in Engineering	8	3.6	3.6	41.3
B. TECH / BE	30	13.5	13.5	54.7
M. TECH/ M.E	5	2.2	2.2	57
Diploma in Business MGT	8	3.6	3.6	60.5
MBA/MMS	85	38.1	38.1	98.7
PhD	3	1.3	1.3	100
Total	223	100	100	

Only ~6% of the respondents were undergraduate. Qualification is one of the criteria for critical analysis and genuine responses. Most of the earlier studies have been conducted on students or undergraduates while in this case its skewed towards professional degree holders. ~86% of the respondents were graduates and above.

Income				
Monthly	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 25000	15	6.7	6.7	6.7
25001- 75000	63	28.3	28.3	35
75001-125000	51	22.9	22.9	57.8
125001-175000	16	7.2	7.2	65
175001-225000	11	4.9	4.9	70
225001-275000	5	2.2	2.2	72.2
275001-325001	7	3.1	3.1	75.3
Greater than - 325001	33	14.8	14.8	90.1
Dependent - Studying, Retired	22	9.9	9.9	100
Total	223	100	100	

55 % of the respondents were having salary greater than 75000 INR. These respondents had medium - high disposable income and hence it was natural for them to buy things from e-commerce websites.

Purchase in the last One month				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	183	82.1	82.1	82.1
No	40	17.9	17.9	100
Total	223	100	100	

~82% of the respondents have brought one item of their choice from the e-commerce website in the last one month. This was one of the stringent requirements for eliciting the responses. Earlier studies had not mentioned this duration hence the respondents had difficulty in recollecting their experiences.

Item Purchased				
	Frequency	Percent	Valid Percent	Cumulative Percent
Book	11	4.9	4.9	4.9
Grocery	36	16.1	16.1	21.1
Movie/ Music / Game	4	1.8	1.8	22.9
Electronics and Computers	29	13	13	35.9
Sport/ Outdoor	6	2.7	2.7	38.6
Health/ Beauty	25	11.2	11.2	49.8
Apparel/ Shoes / Jewels	34	15.2	15.2	65
Holidays	4	1.8	1.8	66.8
Decorations	6	2.7	2.7	69.5
Food Items	17	7.6	7.6	77.1
Tickets/ Hygiene items	19	8.5	8.5	85.7
Service	32	14.3	14.3	100
Total	223	100	100	

There is a dispersion of the items purchased by the respondents. Amazon in India offers most of the products and services range and hence its generalized for the e-commerce website.

4.3 Measurement model

This chapter follows the widely accepted rules of PLS reporting followed by Chin (2010). Here we will be discussing and reporting basis the following steps. The PLS reporting is mainly divided into Measurement and Structural Models.

4.3.1 Factor Loadings

Factor loadings refers to the extent to which each of the items in the correlation matrix corelates with the given principal component. It can range from -1.0 to +1.0 with higher values indicating better correlations with the underlying factor (Pett et al, 2003).

The factor loading of every established item 0.6 – 0.7 or higher (Awang 2014). Factor loading is the correlation coefficient for the variable and factor. Explains the variance caused by the variable on that factor. A factor of 0.7 explains sufficient variance from that variable.

The indicator reliability of the mentioned model is examined by item loadings. Range of 0.5 to 0.7 (Hair et al.,2010) is said to be satisfactory if each item's loading estimates falls between the mentioned range. The model under study has got an internal consistent reliability ranging from 0.738 – 0.944 which is much above the threshold of 0.7. All items are significant at the level of 0.001 and demonstrate strong indicator reliability.

| OuterLoadings | | | | | | | | | | | | | | | |
	ATP_	Con	Control	CostR	IOP_	PEOU	PU_	PerRisk	erbehaviou	SelfEff	Shop	SubNorm	Tele	TimeDistor	TimeSAV	Trust
ATP_1	0.944															
ATP_2	0.941															
Con_1		0.838														
Con_2		0.895														
Con_3		0.894														
Con_4		0.884														
Control_1			0.875													
Control_2			0.894													
CostRED_1				0.896												
CostRED_2				0.827												
CostRed_3				0.88												
IOP_1					0.944											
IOP_2					0.93											
PEOU_1						0.854										
PEOU_2						0.842										
PEOU_3						0.875										
PEOU_4						0.887										
PU_1							0.933									
PU_2							0.925									
PU_3							0.925									
PU_4							0.893									
PerRisk_1								0.88								
PerRisk_2								0.92								
PerRisk_3								0.912								
Perbehaviour									1							
SelfEff_1										0.924						
SelfEff_2										0.895						
ShopEn_1											0.915					
Shopen_2											0.944					
Shopen_3											0.932					
Shopen_4											0.901					
SubNorm_1												0.95				
SubNorm_2												0.934				
TImeDistort_1														0.965		
TelePre_1													0.859			
Telepre_2													0.872			
Telepre_3													0.881			
Telepre_4													0.92			
Telepre_5													0.913			
TimeDistort_2														0.812		
TimeSAV_1															0.853	
TimeSAV_2															0.817	
TimeSAV_3															0.853	
TimeSAV_4															0.738	
TimeSAV_5															0.845	
Trust_1																0.887
Trust_2																0.908
Trust_3																0.889

4.3.2 Reliability and Validity

Reliability measures the stability and consistency of the instrument under measure (Mark 1996). Repeated administration of the instrument will yield the same results. Cronbach Alpha and Composite reliability are most common used methodology used for establishing reliability. The Cronbach's Alpha ranges from 0.773 to 0.942 and composite reliability ranges from 0.880 to 0.958 which is well above the threshold of 0.7, hence items used for representing the constructs have strong internal consistency and reliability.

Reliability and Validity				
	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ATP_	0.875	0.875	0.941	0.889
Con_	0.901	0.908	0.931	0.771
Control	0.722	0.725	0.878	0.782
CostR	0.838	0.86	0.902	0.754
IOP_	0.862	0.869	0.935	0.879
PEOU_	0.888	0.892	0.922	0.747
PU_	0.939	0.942	0.956	0.845
PerRisk_	0.888	0.889	0.931	0.818
SelfEff_	0.792	0.806	0.905	0.827
Shop	0.942	0.948	0.958	0.852
SubNorm_	0.873	0.886	0.94	0.887
Tele	0.941	1.22	0.95	0.791
TimeDistort	0.773	1.143	0.885	0.795
TimeSAV_	0.88	0.891	0.913	0.677
Trust_	0.876	0.88	0.923	0.8

4.3.3 Construct Validity

Convergent Validity

Convergent validity refers to the degree to which more attempts to measure and agree the same concepts. Bagozzi (1991) Two measures of the same thing should vary highly if they are valid measures of the concept. Fornell& Larcker (1981) & Henseler et al. (2009) state that when the AVE should be greater or equal to 0.5, Items converge to measure the underlying construct and thereby establishes convergent validity. The measurement model under study has AVE ranging from 0.677 to 0.880 and hence the items have strong convergent validity.

Discriminant Validity - Discriminant validity is defined as the degree by which measures of different concepts are different and distinct. The thought behind this is if two concepts are unique then valid measures should not have high correlations (Bagozzi et al, 1991).

Fornell & Larcker Criterion – According to Fornell and Larcker, when the square root of AVE for a construct is greater than its correlation with all other constructs then discriminant validity is established.

Fornell Larcker criterion															
	ATP	Con	Control	CostR	IOP	PEOU	PU	PerRisk	Perbehaviour	SelfEff	Shop	ubNorm	Tele	TimeDistort	imeSAV	Trust
ATP	0.943															
Con	0.517	0.878														
Control	0.717	0.517	0.884													
CostR	0.838	0.438	0.679	0.868												
IOP	0.743	0.455	0.644	0.895	0.937											
PEOU	0.626	0.614	0.704	0.608	0.585	0.865										
PU	0.566	0.6	0.646	0.523	0.504	0.851	0.919									
PerRisk	0.562	0.635	0.634	0.508	0.506	0.669	0.681	0.904								
Perbehaviour	0.595	0.41	0.636	0.556	0.511	0.672	0.586	0.526	1							
SelfEff	0.597	0.492	0.767	0.564	0.552	0.772	0.641	0.65	0.655	0.91						
Shop	0.463	0.754	0.457	0.347	0.329	0.486	0.568	0.603	0.323	0.381	0.923					
SubNorm	0.574	0.499	0.67	0.54	0.522	0.562	0.448	0.509	0.501	0.606	0.357	0.942				
Tele	0.06	0.305	0.029	0.033	0.012	0.041	0.135	0.196	-0.06	-0.035	0.403	0.002	0.889			
TimeDistort	0.289	0.534	0.34	0.242	0.258	0.299	0.353	0.412	0.205	0.227	0.679	0.237	0.566	0.892		
TimeSAV	0.449	0.702	0.412	0.339	0.318	0.452	0.521	0.567	0.325	0.347	0.945	0.323	0.396	0.656	0.823	
Trust	0.634	0.595	0.673	0.58	0.554	0.743	0.736	0.747	0.592	0.663	0.55	0.552	0.124	0.352	0.513	0.895

AVE of the variable which is latent should be higher than the squared correlations with all other latent variables Henseler et al (2009). Latent variables share more variance with each block indicators than with other indicators.

The model under study has all constructs whose square root of AVE is greater than its correlation with all other constructs and hence discriminant validity is established.

	ATP	Con	Control	CostR	IOP	PEOU	PU	PerRisk	Perbehaviour	SelfEff	Shop	SubNorm	Tele	TimeDistort	TimeSAV	Trust
									Cross Loadings							
ATP_1	0.944	0.441	0.667	0.832	0.703	0.571	0.51	0.475	0.576	0.545	0.4	0.539	0.046	0.282	0.394	0.559
ATP_2	0.941	0.536	0.685	0.747	0.699	0.609	0.558	0.586	0.546	0.581	0.473	0.545	0.068	0.262	0.453	0.638
Con_1	0.446	0.838	0.439	0.378	0.401	0.475	0.429	0.539	0.322	0.402	0.641	0.454	0.331	0.497	0.604	0.417
Con_2	0.504	0.895	0.528	0.44	0.467	0.598	0.585	0.58	0.425	0.491	0.606	0.472	0.206	0.432	0.547	0.582
Con_3	0.436	0.894	0.441	0.351	0.357	0.545	0.562	0.562	0.351	0.429	0.681	0.422	0.223	0.414	0.632	0.543
Con_4	0.421	0.884	0.392	0.356	0.356	0.531	0.526	0.545	0.329	0.394	0.736	0.397	0.321	0.54	0.701	0.542
Control_1	0.662	0.482	0.875	0.642	0.607	0.6	0.531	0.56	0.532	0.67	0.46	0.66	0.052	0.352	0.406	0.575
Control_2	0.608	0.435	0.894	0.562	0.536	0.644	0.609	0.561	0.591	0.687	0.354	0.53	0.001	0.254	0.326	0.614
CostRED_1	0.664	0.39	0.578	0.896	0.847	0.538	0.438	0.448	0.478	0.49	0.269	0.479	0.01	0.195	0.261	0.494
CostRED_2	0.628	0.373	0.547	0.827	0.886	0.496	0.449	0.429	0.396	0.474	0.279	0.418	0.033	0.193	0.298	0.477
CostRed_3	0.852	0.379	0.632	0.88	0.644	0.545	0.471	0.445	0.552	0.502	0.343	0.501	0.041	0.235	0.32	0.533
IOP_1	0.726	0.443	0.61	0.854	0.944	0.533	0.453	0.471	0.5	0.498	0.316	0.514	0.003	0.278	0.296	0.513
IOP_2	0.665	0.407	0.598	0.822	0.93	0.566	0.494	0.478	0.457	0.54	0.301	0.461	0.021	0.2	0.3	0.527
PEOU_1	0.577	0.488	0.667	0.586	0.546	0.854	0.72	0.59	0.585	0.754	0.405	0.517	-0.002	0.234	0.372	0.613
PEOU_2	0.455	0.493	0.534	0.484	0.471	0.842	0.715	0.527	0.563	0.628	0.387	0.469	-0.004	0.259	0.378	0.581
PEOU_3	0.589	0.551	0.617	0.522	0.495	0.875	0.732	0.553	0.593	0.636	0.413	0.504	0.063	0.233	0.383	0.663
PEOU_4	0.53	0.595	0.603	0.499	0.504	0.887	0.776	0.638	0.581	0.639	0.477	0.446	0.087	0.311	0.432	0.711
PU_1	0.562	0.54	0.633	0.528	0.518	0.784	0.933	0.656	0.554	0.618	0.517	0.445	0.123	0.317	0.478	0.68
PU_2	0.523	0.546	0.597	0.481	0.462	0.83	0.925	0.593	0.557	0.612	0.487	0.464	0.072	0.318	0.436	0.687
PU_3	0.493	0.568	0.589	0.456	0.438	0.802	0.925	0.613	0.575	0.611	0.532	0.375	0.11	0.32	0.478	0.663
PU_4	0.5	0.555	0.552	0.451	0.428	0.711	0.893	0.642	0.467	0.511	0.555	0.357	0.194	0.343	0.524	0.675
PerRisk_1	0.505	0.572	0.56	0.451	0.434	0.615	0.62	0.88	0.491	0.586	0.543	0.474	0.216	0.401	0.516	0.723
PerRisk_2	0.5	0.535	0.574	0.45	0.476	0.6	0.613	0.92	0.495	0.586	0.505	0.44	0.148	0.317	0.461	0.64
PerRisk_3	0.519	0.614	0.585	0.475	0.462	0.6	0.615	0.912	0.443	0.592	0.587	0.468	0.169	0.399	0.56	0.665
Perbehaviour	0.595	0.41	0.636	0.556	0.511	0.672	0.586	0.526	1	0.655	0.323	0.501	-0.06	0.205	0.325	0.592
SelfEff_1	0.585	0.443	0.74	0.54	0.535	0.75	0.613	0.568	0.642	0.924	0.342	0.598	-0.037	0.219	0.306	0.658
SelfEff_2	0.495	0.454	0.65	0.483	0.466	0.648	0.549	0.62	0.542	0.895	0.353	0.498	-0.025	0.193	0.328	0.54
ShopEn_1	0.438	0.728	0.439	0.318	0.291	0.489	0.58	0.584	0.325	0.406	0.915	0.343	0.328	0.62	0.86	0.539
Shopen_2	0.463	0.704	0.425	0.354	0.35	0.442	0.525	0.585	0.304	0.335	0.944	0.327	0.361	0.641	0.878	0.514
Shopen_3	0.413	0.671	0.409	0.305	0.292	0.429	0.507	0.536	0.302	0.326	0.932	0.302	0.398	0.671	0.922	0.496
Shopen_4	0.389	0.68	0.415	0.299	0.276	0.436	0.481	0.519	0.259	0.34	0.901	0.347	0.409	0.571	0.829	0.48
SubNorm_1	0.574	0.468	0.687	0.549	0.523	0.602	0.483	0.507	0.559	0.655	0.332	0.95	-0.061	0.199	0.293	0.556
SubNorm_2	0.503	0.473	0.568	0.464	0.455	0.446	0.352	0.449	0.371	0.476	0.341	0.934	0.075	0.252	0.317	0.479
TImeDistort_1	0.316	0.556	0.377	0.273	0.29	0.331	0.384	0.443	0.249	0.259	0.709	0.271	0.457	0.965	0.685	0.387
TelePre_1	0.049	0.252	0.031	0.017	-0.017	0.027	0.11	0.151	-0.084	-0.053	0.388	0.018	0.859	0.581	0.376	0.112
Telepre_2	0.025	0.267	-0.001	0.007	-0.005	0.008	0.092	0.132	-0.092	-0.063	0.38	0.018	0.872	0.559	0.36	0.096
Telepre_3	0.027	0.251	-0.015	0.018	-0.009	0.014	0.13	0.109	-0.05	-0.087	0.333	-0.043	0.881	0.512	0.326	0.092
Telepre_4	0.038	0.279	-0.004	0.017	-0.02	0.045	0.151	0.192	-0.061	-0.04	0.394	-0.047	0.92	0.509	0.388	0.115
Telepre_5	0.078	0.289	0.054	0.051	0.047	0.053	0.119	0.214	-0.026	0.008	0.336	0.022	0.913	0.45	0.336	0.118
TimeDistort_2	0.153	0.344	0.169	0.11	0.118	0.147	0.19	0.233	0.051	0.096	0.43	0.1	0.656	0.812	0.418	0.178
TimeSAV_1	0.413	0.646	0.398	0.321	0.293	0.436	0.51	0.52	0.308	0.392	0.802	0.3	0.307	0.59	0.853	0.467
TimeSAV_2	0.376	0.615	0.335	0.303	0.313	0.393	0.446	0.534	0.261	0.264	0.793	0.267	0.299	0.545	0.817	0.482
TimeSAV_3	0.409	0.544	0.373	0.298	0.267	0.377	0.433	0.445	0.294	0.263	0.805	0.28	0.338	0.57	0.853	0.408
TimeSAV_4	0.284	0.519	0.246	0.184	0.182	0.292	0.32	0.356	0.219	0.205	0.715	0.237	0.326	0.431	0.738	0.285
TimeSAV_5	0.341	0.557	0.316	0.266	0.233	0.341	0.406	0.456	0.241	0.28	0.768	0.234	0.372	0.541	0.845	0.443
Trust_1	0.599	0.491	0.635	0.553	0.516	0.625	0.592	0.603	0.552	0.593	0.447	0.539	0.074	0.305	0.419	0.887
Trust_2	0.572	0.55	0.629	0.527	0.52	0.685	0.691	0.687	0.543	0.61	0.472	0.49	0.075	0.268	0.434	0.908
Trust_3	0.525	0.56	0.535	0.471	0.445	0.688	0.699	0.724	0.489	0.574	0.567	0.445	0.195	0.378	0.534	0.889

Heterotrait- Monotrait Ratio (HTMT)

HTMT is based on the estimation of the correlation between the constructs. One of the ways to establish discriminant validity is based on HTMT ratio. HTMT ratio is still debated Teo et al (2008) recommends threshold of less than 0.90 whereas Kline recommends threshold of 0.85. If the HTMT value is below 0.90, discriminant validity has been established between two reflective constructs.

Discriminant validity - Hetro Montrait Ratio															
	ATP	Con	Control	CostR	IOP	PEOU	PU	PerRisk	Perbehaviour	SelfEff	Shop	SubNorm	Tele	TimeDistort	TimeSAV	Trust
ATP																
Con	0.58															
Control	0.904	0.637														
CostR	0.96	0.5	0.868													
IOP	0.854	0.51	0.819	1.072												
PEOU	0.706	0.685	0.874	0.698	0.667											
PU	0.624	0.651	0.782	0.585	0.56	0.932										
PerRisk	0.638	0.708	0.791	0.587	0.578	0.752	0.746									
Perbehaviour	0.636	0.428	0.747	0.597	0.549	0.713	0.604	0.559								
SelfEff	0.713	0.579	1.01	0.688	0.667	0.911	0.739	0.778	0.731							
Shop	0.508	0.823	0.558	0.383	0.363	0.532	0.604	0.658	0.332	0.442						
SubNorm	0.654	0.56	0.842	0.623	0.597	0.576	0.487	0.528	0.717	0.394						
Tele	0.053	0.327	0.056	0.038	0.026	0.051	0.143	0.194	0.072	0.065	0.434	0.087				
TimeDistort	0.316	0.6	0.408	0.26	0.274	0.321	0.373	0.452	0.189	0.25	0.739	0.253	0.748			
TimeSAV	0.506	0.792	0.512	0.386	0.36	0.507	0.566	0.635	0.343	0.41	1.038	0.367	0.439	0.735		
Trust	0.723	0.67	0.842	0.67	0.636	0.844	0.814	0.851	0.63	0.789	0.609	0.625	0.135	0.384	0.582	

4.3.4 Path Coefficients

The individual path coefficients are interpreted as the standardized beta coefficients in an ordinary least square regression. A one-unit change of exogenous variables changes the endogenous construct by the size of the path coefficients when everything else remains constant (Hair et al 2010). Path coefficients are the coefficient linking construct in the structural model. It represents the strength of the relationship. The significance of the coefficients depends upon the standard error that is obtained by bootstrapping to enable computing the t and p values. When an empirical value is larger than the critical value, we conclude that the coefficients is statistically significant at a certain error probability. Commonly used critical value for two tailed tests are 1.65 and 1.96 at 10 % and 5 % significance level.

1) <u>Attitude towards purchase ----→ Intention to purchase:</u> Since the p value is less than 0.05, we interpret that the path coefficient from Attitude towards purchase is significant towards Intention to purchase. The original sample value is 0.632 and t-value is 9.417. Which means there is 63 % weightage of Attitude towards purchase on Intention to purchase.

2) <u>Concentration ----→ Intention to purchase:</u> Since the p value is less than 0.05, we interpret that the path coefficient from Concentration. is significant towards Intention to purchase. The original sample value is 0.154 and t-value is 2.227. Which means there is 15 % weightage of concentration on Intention to purchase.

3) <u>Controllability ----→ Perceived Behavior:</u> Since the p value is less than 0.05, we interpret that the path coefficient from Controllability is significant towards perceived behavior. The original sample value is 0.325 and t-value is 3.167. Which means there is 32 % weightage of controllability on Perceived behavior.

4) <u>Cost reduction ----→ Attitude towards purchase:</u> Since the p value is less than 0.05, we interpret that the path coefficient from cost reduction is significant towards Attitude towards purchase. The original sample value is 0.685 and t-value is 15.616. Which means there is 68 % weightage of cost reduction on attitude towards purchase.

5) <u>Perceived ease of usage ----→ Controllability:</u> Since the p value is less than 0.05, we interpret that the path coefficient from perceived ease of usage is significant towards controllability. The original sample value is 0.407 and t-value is 5.280. Which means there is 41 % weightage of perceived ease of usage on controllability.

6) <u>Perceived ease of usage ----→ Self efficacy:</u> Since the p value is less than 0.05, we interpret that the path coefficient from perceived ease of usage is significant towards self-efficacy.

The original sample value is 0.772 and t-value is 21.952. Which means there is 77 % weightage of perceived ease of usage on self-efficacy.

7) Perceived Risk ----→ Controllability: Since the p value is less than 0.05, we interpret that the path coefficient from perceived risk is significant towards controllability. The original sample value is 0.191 and t-value is 2.308. Which means there is 19 % weightage of perceived risk on controllability.

8) Self-Efficacy ----→ Perceived behavior: Since the p value is less than 0.05, we interpret that the path coefficient from self-efficacy is significant towards perceived behavior. The original sample value is 0.405 and t-value is 3.747. Which means there is 41 % weightage of self- efficacy on perceived behavior.

9) Shopping enjoyment----→ Intention to purchase: Since the p value is less than 0.05, we interpret that the path coefficient from shopping enjoyment is significant towards Intention to purchase. The original sample value is -0.188 and t-value is 2.139. Which means there is a negative relationship of -18 % weightage of shopping enjoyment on Intention to purchase.

10) Trust----→ Controllability: Since the p value is less than 0.05, we interpret that the path coefficient from trust is significant towards Controllability. The original sample value is 0.0.228 and t-value is 2.449. Which means there is 23 % weightage of trust on controllability.

4.4 Structural model

4.4.1 Structural Model

<u>Variance Inflation Factor (VIF) values</u> – Fornell & Bookstein (1982) states VIF statistics used to measure multicollinearity among the independent variable in a multiple regression model. Hair et al (2016) states that multi collinearity is not a serious issue if the value is less than 5. The ideal value should be less than 5.

All the variables studied under the model has values less than 5 and hence there is no multi collinearity in the model.

ITEMS	VIF Values
ATP_1	2.528
ATP_2	2.528
Con_1	2.198
Con_2	2.992
Con_3	3.440
Con_4	2.975
Control_1	1.469
Control_2	1.469
CostRED_1	2.514
CostRED_2	1.917
CostRed_3	1.886
IOP_1	2.347
IOP_2	2.347
PEOU_1	2.075
PEOU_2	2.172
PEOU_3	2.671
PEOU_4	2.887
PU_1	4.253
PU_2	3.959
PU_3	4.163
PU_4	2.977
PerRisk_1	2.191
PerRisk_2	3.080
PerRisk_3	2.861
Perbehaviour	1.000
SelfEff_1	1.756
SelfEff_2	1.756
ShopEn_1	3.597
Shopen_2	4.841
Shopen_3	4.444
Shopen_4	3.345
SubNorm_1	2.507
SubNorm_2	2.507
TImeDistort_1	1.656
TelePre_1	4.369
Telepre_2	4.986
Telepre_3	3.941
Telepre_4	5.081
Telepre_5	2.672
TimeDistort_2	1.656
TimeSAV_1	2.390
TimeSAV_2	2.027
TimeSAV_3	2.494
TimeSAV_4	1.829
TimeSAV_5	2.494
Trust_1	2.141
Trust_2	2.615
Trust_3	2.492

4.4.2 Goodness of fit (Model Predictive capabilities)

Goodness of fit is determined by three major indexes

1) Coefficient of determination (R^2)

2) Effect Size (F^2)

3) Predictive Relevance Measure (Q^2)

R^2 Coefficient of determination - Coefficient of determination (R^2) is a measure that represents the proportion of the variance for a dependent variable that's explained by an independent variables, Alternatively R^2- shows how well the data fit the regression model. Hair et al (2011 & 2013) suggested R^2 value of 0.75 to be substantial, 0.50 can be moderate and 0.25 is weak.

	R-square	R-square adjusted
ATP	0.752	0.74
Control	0.561	0.555
IOP	0.586	0.572
Perbehaviour	0.472	0.468
SelfEff	0.596	0.594

Attitude towards purchase has a substantial R^2 value.

Self – efficacy, Intent to purchase and Controllability has moderate R^2 value.

Perceived behavior has low R^2 value.

F^2 Measurement (Effect size) - Hair et al (2013) recommends that F^2 effect size should also be presented. F^2 effect size statistic tells us the status if an independent variable is removed from the model how much it will impact dependent variable (Hair et al 2013). F^2 is change in R^2 when an

independent variable is removed from the model. Effect size is a measure of the magnitude of an effect which is not dependent of the size of the sample (Cohen 1998).

Greater than or equal to (>=0.02) = Small

Greater than or equal to (>=0.15) = Moderate

Greater than or Equal to (>=0.35) = Large

	ATP	Con	Control	CostR	IOP	PEOU	PU	PerRisk	Perbehaviour	SelfEff	Shop	SubNorm	Tele	TimeDistort	TimeSAV	Trust
ATP					0.475											
Con	0.002				0.020											
Control										0.083						
CostR	1.101															
IOP																
PEOU	0.001		0.158							1.474						
PU	0.000															
PerRisk	0.000		0.034													
Perbehaviour					0.005											
SelfEff										0.128						
Shop	0.003				0.027											
SubNorm					0.011											
Tele	0.003				0.006											
TimeDistort	0.002				0.016											
TimeSAV	0.001															
Trust	0.017		0.040													

Cost reduction have a major role to play in attitude towards purchase as it effects size is 1.101, However removing Concentration, Perceived Ease of Use, Perceived Usefulness, Perceived risk, Shopping Enjoyment, Tele presence, Time distortion, Time Saving, Trust will have no impact on R^2 Value. If the consumer feels that if they get a product or services at a lower cost, then Attitude towards purchase increases exponentially.

Perceived ease of use has medium effect size on controllability since there values are greater than 0.15. Perceived risk and Trust have small effect on Controllability since there values are greater than 0.02, However perceived behavioral control, Subjective Norm, Tele Presence, Time distortion there will be no impact on Intent to purchase as there will be no impact on R^2 value.

Attitude towards purchase has large effect size on Intention to Purchase since the value is greater than 0.35. Concentration and Shopping Enjoyment has small effect size on Attitude towards purchase since there values are less than 0.02.

Controllability and Self efficacy have small size effect on perceived Behavior Control since their values are greater than 0.02.

Q² Predictive Relevance - Q^2 measures the model's predictive relevance and it's also called as effect size. These statistics indicate that the independent variables have a medium effect in producing Q^2 showing a medium predictive relevance (Hair et al, 2016), Specifically it establishes the predictive relevance of the endogenous constructs. Ideal value should be greater than zero (>0). Q^2 value above zero indicate that values are well reconstructed, and the model has predictive relevance.

Hair et al (2013) mentions that Q^2 value of 0.02 is weak, 0.15 is moderate and 0.35 is strong

	Q²predict	RMSE	MAE
ATP_	0.717	0.537	0.408
Control_	0.546	0.685	0.532
IOP_	0.692	0.561	0.424
Perbehaviour	0.448	0.754	0.583
SelfEff_	0.589	0.648	0.44

Standardized Root Mean Square Residual (SRMR) & Normed Fit Index (NFI) or Bentler and Bonett Index

	Saturated model	Estimated model
SRMR	0.056	0.069
d_ULS	3.632	5.634
d_G	3.321	3.779
Chi-square	3637.781	3913.736
NFI	0.905	0.782

4.5 Hypothesis Testing

Hypothesis Testing

Variables	β values	t values	p values	Decision (α = 0.05)
Attitude towards purchase ----à Intent to purchase	0.632	9,417	0	P ≤ α: Accept H1
Concentration ----à Attitude towards purchase	0.041	0.749	0.454	P ≥ α: Reject H1
Concentration ----à Intent to purchase	0.154	2.227	0.026	P ≤ α: Accept H1
Controllability ----à Perceived Behavior	0.325	3.167	0.002	P ≤ α: Accept H1
Cost reduction ----à Attitude towards Purchase	0.685	15.616	0	P ≤ α: Accept H1
Perceived ease of usage ----à Attitude towards purchase	0.035	0.384	0.701	P ≥ α: Reject H1
Perceived ease of usage ----à Controllability	0.407	5.28	0	P ≤ α: Accept H1
Perceived ease of usage ----à Self Efficacy	0.772	21.952	0	P ≤ α: Accept H1
Perceived usefulness ----à Attitude towards Purchase	-0.008	0.083	0.934	P ≥ α: Reject H1
Perceived Risk ----à Attitude towards Purchase	0.017	0.283	0.778	P ≥ α: Reject H1
Perceived Risk ----à Controllability	0.191	2.308	0.021	P ≤ α: Accept H1
Perceived Behaviour Control ----à Intention towards Purchase	0.059	0.95	0.342	P ≥ α: Reject H1
Self-Efficacy -----à Perceived Behavior Control	0.405	3.747	0	P ≤ α: Accept H1
Shopping Enjoyment ----à Attitude towards Purchase	0.088	0.708	0.479	P ≥ α: Reject H1
Shopping Enjoyment -----à Intention towards Purchase	-0.188	2.139	0.032	P ≤ α: Accept H1
Subjective Norm ----à Intention towards Purchase	0.09	1.316	0.188	P ≥ α: Reject H1
Tele Presence ----à Attitude towards Purchase	-0.033	0.693	0.488	P ≥ α: Reject H1
Tele Presence ----à Intention towards Purchase	-0.063	1.077	0.282	P ≥ α: Reject H1
Time Distortion ----à Attitude towards Purchase	-0.034	0.587	0.557	P ≥ α: Reject H1
Time Distortion ----à Intention towards Purchase	0.122	1.768	0.077	P ≤ α: Accept H1
Time Saving ----à Attitude towards Purchase	0.058	0.528	0.597	P ≥ α: Reject H1
Trust ----à Attitude towards Purchase	0.117	1.677	0.094	P ≤ α: Accept H1
Trust ----à Controllability	0.228	2.449	0.014	P ≤ α: Accept H1

4.6 Mediation Analysis

Chin (2010) suggests not only to check on direct effect but if there is significant Indirect effect we need to report for mediation of the variables. Zhao et al (2010) and Hair et al (2017) also suggest usage of PLS-SEM for mediation analysis.

Threshold limit of VAF	
0 – 20 %	No Mediation
20 – 80 %	Partial Mediation
Greater than 80 %	Full Mediation

Mediation 1 - Concentration ---> Intent to Purchase				
Type of effect	Effect	Path co-efficient	T stats	Remark
Total Effect	Concentration----> IOP	0.18	2.772**	Sig Total effect
Indirect effect	Con_ -> ATP_ -> IOP_	0.026	0.755**	Sig Indirect effect
Direct effect	Concentration----> IOP	0.154	2.227**	Sig Direct effect
VAF	IE/TE	14%		
Conclusion	**No mediation of Attitude of purchase exist between Concentration and Intention to purchase**			

Mediation 2 Cost Reduction ---> Intent to Purchase				
Type of effect	Effect	Path co-efficient	T stats	Remark
Total Effect	Cost Reduction ---->IOP	0.433	7.666**	Sig Total effect
Indirect effect	CostR -> ATP_ -> IOP_	0.433	7.666**	Sig Indirect effect
Direct effect	Cost Reduction ---->IOP	0	0	No direct effect
VAF	IE/TE	100%		
Conclusion	**Full mediation of Attitude of purchase exist between Cost reduction and Intention to purchase**			

Mediation 3 Perceived Ease of usage ---> Intent to Purchase				
Type of effect	Effect	Path co-efficient	T stats	Remark
Total Effect	PEOU----> Per Behaviour	0.445	7.026	Sig Total effect
Indirect effect	PEOU_ -> SelfEff_ -> Perbehaviour	0.313	3.539	Sig Indirect effect
Direct effect	PEOU----> Per Behaviour	0	0	No direct effect
VAF	IE/TE	70%		
Conclusion	Full mediation of Self efficicancy exist between perceived ease of usage and perceived behaviour			

4.6 Moderation Analysis

Moderation Analysis – Gender		
Variables	**p values**	**Description**
Attitude towards purchase ----→ Intent to purchase	0.826	There is no significant difference in path coefficients, hence attitude towards purchase affecting Intent towards purchase is equal in male and female
Concentration ----→ Attitude towards purchase	0.72	There is no significant difference in path coefficients, hence concentration towards attitude towards purchase is equal in male and female
Concentration ----→ Intent to purchase	0.097	There is no significant difference in path coefficients, hence concentration towards intent to purchase is equal in male and female
Controllability ----→ Perceived Behaviour	0.11	There is no significant difference in path coefficients, hence controllability towards perceived behaviour is equal in male and female
Cost reduction ----→ Attitude towards Purchase	0.074	There is no significant difference in path coefficients, hence cost reduction towards attitude towards purchase is equal in male and female
Perceived ease of usage ----→ Attitude towards purchase	0.143	There is no significant difference in path coefficients, hence cost reduction towards attitude towards purchase is equal in male and female
Perceived ease of usage ----→ Controllability	0.987	There is no significant difference in path coefficients, hence perceived ease of usage towards controllability is equal in male and female
Perceived ease of usage ----→ Self Efficacy	0.189	There is no significant difference in path coefficients, hence perceived ease of usage towards self-efficacy is equal in male and female
Perceived usefulness ----→ Attitude towards Purchase	0.906	There is no significant difference in path coefficients, hence perceived usefulness towards attitude towards purchase is equal in male and female
Perceived Risk ----→ Attitude towards Purchase	0.419	There is no significant difference in path coefficients, hence perceived risk towards attitude towards purchase is equal in male and female
Perceived Risk ----→ Controllability	0.04	There is significant difference in path coefficients, hence perceived risk towards controllability is not equal in male and female. Males perceive more risk and hence need controllability
Perceived Behaviour Control ----→ Intention towards Purchase	0.739	There is no significant difference in path coefficients, hence perceived behaviour control towards intention towards purchase is equal in male and female
Self-Efficacy -----→ Perceived Behaviour Control	0.135	There is no significant difference in path coefficients, hence self-efficacy towards perceived behaviour control is equal in male and female
Shopping Enjoyment ----→ Attitude towards Purchase	0.116	There is no significant difference in path coefficients, hence shopping enjoyment towards attitude towards purchase is equal in male and female
Shopping Enjoyment -----→ Intention towards Purchase	0.864	There is no significant difference in path coefficients, hence shopping enjoyment towards intention towards purchase is equal in male and female
Subjective Norm ----→ Intention towards Purchase	0.677	There is no significant difference in path coefficients, hence subjective norm towards intention towards purchase is equal in male and female
Tele Presence ----→ Attitude towards Purchase	0.271	There is no significant difference in path coefficients, hence tele presence towards attitude towards purchase is equal in male and female
Tele Presence ----→ Intention towards Purchase	0.409	There is no significant difference in path coefficients, hence tele presence towards intention towards purchase is equal in male and female
Time Distortion ----→ Attitude towards Purchase	0.139	There is no significant difference in path coefficients, hence time distortion towards attitude towards purchase is equal in male and female
Time Distortion ----→ Intention towards Purchase	0.044	There is significant difference in path coefficients, hence time distortion towards Intention towards purchase is not equal in male and female. Time distortion is high in males
Time Saving ----→ Attitude towards Purchase	0.222	There is no significant difference in path coefficients, hence time saving towards attitude towards purchase is equal in male and female
Trust ----→ Attitude towards Purchase	0.129	There is no significant difference in path coefficients, hence trust towards attitude towards purchase is equal in male and female
Trust ----→ Controllability	0.317	There is no significant difference in path coefficients, hence trust towards controllability is equal in male and female

Moderation Analysis – Maritial Status		
Variables	p values	Description
Attitude towards purchase ----→ Intent to purchase	0.826	There is no significant difference in path coefficients, hence attitude towards purchase affecting Intent towards purchase is equal in married and unmarried people
Concentration -----→ Attitude towards purchase	0.339	There is no significant difference in path coefficients, hence concentration towards attitude towards purchase is equal in married and unmarried people
Concentration -----→ Intent to purchase	0.909	There is no significant difference in path coefficients, hence concentration towards intent to purchase is equal in married and unmarried people
Controllability -----→ Perceived Behaviour	0.803	There is no significant difference in path coefficients, hence controllability towards perceived behaviour is equal in married and unmarried people
Cost reduction -----→ Attitude towards Purchase	0.974	There is no significant difference in path coefficients, hence cost reduction towards attitude towards purchase is equal in married and unmarried people
Perceived ease of usage ----→ Attitude towards purchase	0.199	There is no significant difference in path coefficients, hence cost reduction towards attitude towards purchase is equal in married and unmarried people
Perceived ease of usage ----→ Controllability	0.596	There is no significant difference in path coefficients, hence perceived ease of usage towards controllability is equal in married and unmarried people
Perceived ease of usage ----→ Self Efficacy	0.718	There is no significant difference in path coefficients, hence perceived ease of usage towards self-efficacy is equal in married and unmarried people
Perceived usefulness ----→ Attitude towards Purchase	0.182	There is no significant difference in path coefficients, hence perceived usefulness towards attitude towards purchase is equal in married and unmarried people
Perceived Risk -----→ Attitude towards Purchase	0.606	There is no significant difference in path coefficients, hence perceived risk towards attitude towards purchase is equal in married and unmarried people
Perceived Risk -----→ Controllability	0.275	There is no significant difference in path coefficients, hence perceived risk towards controllability is equal in married and unmarried people.
Perceived Behaviour Control ----→ Intention towards Purchase	0.642	There is no significant difference in path coefficients, hence perceived behaviour control towards intention towards purchase is equal in married and unmarried people.
Self-Efficacy -----→ Perceived Behaviour Control	0.544	There is no significant difference in path coefficients, hence self-efficacy towards perceived behaviour control is equal in married and unmarried people.
Shopping Enjoyment ----→ Attitude towards Purchase	0.29	There is no significant difference in path coefficients, hence shopping enjoyment towards attitude towards purchase is equal in married and unmarried people.
Shopping Enjoyment -----→ Intention towards Purchase	0.947	There is no significant difference in path coefficients, hence shopping enjoyment towards intention towards purchase is equal in married and unmarried people
Subjective Norm ----→ Intention towards Purchase	0.27	There is no significant difference in path coefficients, hence subjective norm towards intention towards purchase is equal in married and unmarried people
Tele Presence ----→ Attitude towards Purchase	0.319	There is no significant difference in path coefficients, hence tele presence towards attitude towards purchase is equal in married and unmarried people
Tele Presence ----→ Intention towards Purchase	0.015	There is significant difference in path coefficients, hence tele presence towards intention towards purchase is not equal in married and unmarried people. Unmarried people need telepresence which in turns improve intention towards purchase
Time Distortion ----→ Attitude towards Purchase	0.767	There is no significant difference in path coefficients, hence time distortion towards attitude towards purchase is equal in married and unmarried people.
Time Distortion ----→ Intention towards Purchase	0.609	There is no significant difference in path coefficients, hence time distortion towards Intention towards purchase is equal married and unmarried people
Time Saving ----→ Attitude towards Purchase	0.373	There is no significant difference in path coefficients, hence time saving towards attitude towards purchase is equal in married and unmarried people
Trust ----→ Attitude towards Purchase	0.29	There is no significant difference in path coefficients, hence trust towards attitude towards purchase is equal in married and unmarried people
Trust ----→ Controllability	0.857	There is no significant difference in path coefficients, hence trust towards controllability is equal in married and unmarried people

Chapter V: Discussion

223 people participated in the survey conducted for two months. The method adopted was convenience random sampling and the study was done on Indian context. SPSS version 27 and SMART PLS version 4 was used to study the statistical relevance and model fits of the Extended theory of planned behavior in Indian context. Descriptive statistics was done through SPSS. Measurement and structural model were tested using SMART PLS 4.

The discussion flow would be as follows.

1) Descriptive statistics
2) Measurement model
    a. Factor Loadings
    b. Reliability
        i. Cronbach's alpha
        ii. Composite Reliability
    c. Convergent validity
    d. Discriminant validity
        i. Fornell and Larcker criterion
        ii. HTMT ratio
    e. Path coefficients – Direct effect
3) Structural Model
    a. VIF values
    b. R-square
    c. F - Square

d. Q- square

e. Standardized Root Mean Square Residual (SRMR)

f. Normed Fit Index (NFI) or Bentler and Bonett Index

g. Hypothesis Results (Direct Relationships)

h. Mediation Analysis

i. Moderation analysis

5.1 Descriptive Statistics

Total respondents were 223 – 81 % of the population was above 30 years. Male respondents were 76%. Married respondents were 82%. Respondents with surfing experience 5-6 years of surfing experience were 87%. Respondents who were purchasing monthly were 70%. Respondents who spend more than 5 hours were 75%. Amazon is the most preferred website as 70 % of the people visit this e-commerce portal. Graduates and above constituted 86%. 55% of the people had an average salary above 75000 INR.

5.2 Measurement model

5.2.1- Factor Loading

The model under study has an internal consistent reliability ranging from 0.738 – 0.944. all the items have consistent reliability and the range of 0.5 to 0.7 (Hair et al.,2010). No items from the questionnaire were dropped.

5.2.2 - Reliability (Cronbach's alpha and Composite reliability)

Items representing the constructs have strong internal consistency and reliability since Cronbach's alpha ranges from 0.773 to 0.942 and composite reliability ranges from 0.880 to 0.958.

5.2.3 Convergent Validity

All the items in the measurement model have an AVE ranging from 0.677 to 0.880 and hence it has got a strong convergent validity.

5.2.4 Discriminant validity

a) Fornell & Larcker Criterion - The model under study has all constructs whose square root of AVE is greater than its correlation with all other constructs and hence discriminant validity is established.

b) Heterotrait- Monotrait Ratio (HTMT) - Discriminant validity has been established between two reflective constructs if the values are less than 0.90. Discriminant validity is established in this model as the correlation between the constructs are well below 0.90.

5.2.5 Path Coefficients

Path coefficients is a major factor for understanding the strength of the relationships. Smart PLS does this analysis through bootstrapping. Path coefficient is important measurement as it determines the impact it creates on the other variables. Business needs to understand the importance of each variable that exhibits the consumer acquisition and retention.

a) <u>Attitude towards purchase ----→ Intention to purchase:</u> Attitude towards purchase is one of the important factors that drives the consumers towards intention to purchase. Developing attitude is a key to success as and it's one of the important mediating variables in the model. The weightage and impact of attitude towards purchase on Intention towards purchase is 63%. All the factors which develop attitude towards purchase must be considered and studied on a larger sample size.

b) <u>Concentration ----→ Intention to purchase:</u> Concentration is important however the weightage is only 15 % on intention towards purchase. If a consumer comes to the portal predetermined maybe concentration may not play a significant role. Few advertisements or promotions can really add value; however, timing is very important and it's a good topic for research.

c) <u>Controllability ----→ Perceived Behaviour:</u> Controllability determines behaviour. There is always a tug of war on the controllability factor on perceived behaviour. Buyers and seller both need controllability on their sides and to their favour, also its important to understand how much controllability one should be given genuinely which should not be misused by the other side. Controllability has 32 % weightage on Perceived behaviour.

d) <u>Cost reduction ----→ Attitude towards purchase:</u> There has been always a dilemma between cost reduction and value for money, however, to create value for money for every product through e-commerce is still uncharted territory and still in exploration phase. Most of the portals have mastered the art of reducing prices and have a solid tendency of giving heavy discounts and still making profits because of less overheads and may be large buying behaviours. Cost reduction increases attitude towards purchase. There is 68 % weightage of cost reduction on attitude towards purchase.

e) <u>Perceived ease of usage ----→ Controllability:</u> Perceive ease of usage makes one comfortable during and after the purchase. Perceived ease of usage is a factor of many practices and perceptions. If a consumer visits a particular portal many times in the past subconsciously the mind starts absorbing signal of perceived ease of usage compared to a portal which is visited for the first time. Also perceived ease of usage is important from the controllability point of view. The consumer start feeling that more the ease of usage more the controllability. There is 41 % weightage of perceived ease of usage on controllability.

f) <u>Perceived ease of usage ----→ Self efficacy:</u> Self efficacy is one of the important variables which is desired to be demonstrated by every consumer. The feeling of perceived ease of usage improves self – efficiency. If all the hassles are removed during and after purchase the consumer feel that that they have done an efficient shopping. Efficient shopping is a factor of many inputs however perceived ease of usage has 77% weightage on self – efficacy.

g) <u>Perceived Risk ----→ Controllability:</u> Perceived risk is one of the greatest obstacles in the buying behaviour of the online consumers. Starting from doubts about the e-commerce portal, Value for money pricing, unavailability of look and feel options, perceived cheating behaviour etc adds to the dilemma of shopping, but still the consumer will buy if he feels that the controllability is on his side and if anything goes wrong then he can still manage to recover the loss. There is 19% weightage of perceived risk on controllability.

h) <u>Self-Efficacy ----→ Perceived behaviour:</u> one of the important factors for online shopping is Self-efficacy as it determines the efficiency of the consumer and add to its perceived buying behaviour. The more the efficient the consumer feel the easier it for him to develop perceived behaviour. There is 41% weightage of self- efficacy on perceived behaviour.

i) Shopping enjoyment----→ Intention to purchase: Factors determining shopping enjoyment is purely situational and will change from consumer to consumer. Some consumers will like more discounts, but some may like variety of choices for some may be occasion and the list can be endless. The major job of the companies in this space is to create enjoyable, memorable, and long-lasting happiness for the consumers there is a negative weightage of -18 % of shopping enjoyment on Intention to purchase.

j) Trust----→ Controllability: Trust is what makes the consumer a loyal customer. Many researchers have focused upon the trust on money transaction which comes at the end, however trust has git many components which needs to be dwelt and studies for online consumer behaviour. Trust of the consumers can be lost starting from a wrong communication to cheating. The reason for losing trust is so varied and should be studied separately to find out the under lying criteria. Trust will increase the feeling of controllability and trust has 23 % weightage on Controllability.

5.3 **Structural Model**

5.3.1 **VIF Values:** When the parameters of the measurement models are satisfactory the way forward is to evaluate the structural model. It is important to access collinearity must be examined to ensure that there is no bias on the regression results.

The measure model under study has values < 5 and hence there is no collinearity issues reported

5.3.2 **R^2 Value:** since there is no collinearity issues reported in the model the next is to examine R^2 value of the endogenous constructs. Shmueli and Koppius (2011) states that R^2 measure the variance which is explained in each of the endogenous constructs and hence it's the

measure of model's explanatory power. Five variables had low to substantial explanatory power as mentioned below.

a) Attitude towards purchase: Attitude towards purchase has 75.2 % variance on time saving, Cost reduction, Perceived usefulness, Perceived ease of use, Controllability, Shopping enjoyment, Time distortion, Telepresence, Trust, and Perceived risk. R^2 value is substantial for Attitude towards purchase, Hence the above variable is important and ecommerce website must be considerate and give equal importance to these variables for success in the Indian context.

b) Controllability: Controllability has 56.1% variance on Perceived ease of use, Trust, and Perceived risk. If the consumers feel that they are not in control of the situation they exit the e-commerce portal without buying. Controllability has a moderate R^2 value

c) Intent to online purchase: Intent to online purchase has 58.6% Variance on Attitude towards purchase, Perceived ease of usage, Controllability, Shopping enjoyment, Time Distortion, tele presence and subjective norm. Intent to online purchase has a moderate R^2 value.

d) Perceived Behavior: Perceived behavior has 47.2% Variance on Controllability, and Self efficacy, Perceived behavior has a moderate R^2 value.

e) Self-Efficacy: Self-Efficacy has 59.6% variance on perceived ease of usage. If perceived ease of usage is good, then the consumer feels self-efficacy. Self-Efficacy has a moderate R^2 value.

5.3.3 **F² Measurement (Effect size)-** Removal of certain constructs affects the value of endogenous R^2 value. F^2 effect size is redundant to path coefficient. The rank order of the predicter constructs in explaining the dependent construct is like comparing the path coefficients and F^2 effect size.

The results of F^2 are mentioned below.

a) Cost reduction have a major role to play in attitude towards purchase as it effects size is 1.101, However removing Concentration, Perceived Ease of Use, Perceived Usefulness, Perceived risk, Shopping Enjoyment, Tele presence, Time distortion, Time Saving, Trust will have no impact on R^2 Value. If the consumer feels that if they get a product or services at a lower cost, then Attitude towards purchase increases exponentially.

b) Perceived ease of use has medium effect size on controllability since there values are greater than 0.15. Perceived risk and Trust have small effect on Controllability since there values are greater than 0.02, However perceived behavioural control, Subjective Norm, Tele Presence, Time distortion there will be no impact on Intent to purchase as there will be no impact on R^2 value.

c) Attitude towards purchase has large effect size on Intention to Purchase since the value is greater than 0.35. Concentration and Shopping Enjoyment has small effect size on Attitude towards purchase since there values are less than 0.02. Controllability and Self efficacy have small size effect on perceived Behaviour Control since their values are greater than 0.02.

5.3.4   **Q² Value** – One of the methods of calculating PLS path model's predictive accuracy is the calculation of Q2 value (Geisser, 1974; Stone 1974). It uses predominantly blind folding procedure. Q^2 is not a measure of out-of-sample prediction but it's a combination of out-of-sample and In- sample explanatory power (Shmueli et al, 2016; Sarstedt et al., 2017 a). Blind folding procedure predicts the data points that were removed for all the variables by using the estimates as input. Q^2 value is the outcome of small differences between the predicted and the original values. The higher the Q^2 value the higher the predictive accuracy.

Q2 values of the measurement model is discussed below

The predictive relevance of Attitude towards purchase, Controllability, Intent to purchase, Perceived Behavioural control, and Self efficacy has Q^2 Predict value greater than 0.35 which is strong and hence predictive relevance is established,

5.3.5   Standardized Root Mean Square Residual (SRMR)

The SRMR is defined as the difference between the observed correlation and the model implied correlation matrix. Thus, it allows assessing the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of (model) fit criterion.

Hu and Bentler (1999) specifies Less tha0.08 (conservative) OR 0.10 (Moderate) are considered a good fit. Henseler et al. (2014) proposes SRMR as a goodness of fit. For PLS-SEM, SRMR can be used to avoid model misspecification. The value of the model under testing are 0.056 which is well within the specified limits.

5.3.6   Normed Fit Index (NFI) or Bentler and Bonett Index

Bentler and Bonett (1980) proposed one of the first fit measures called NFI. Chi² value is not sufficient to judge the model fit, Hence NFI computes Chi² and compares itself against a meaningful benchmark. The NFI values varies between 0 and 1. The closer the NFI values to 1 the better the model. Any values above 0.9 is usually considered as an acceptable fit. The NFI value of the model under testing is 0.905 which is good fit.

5.3.7   Hypothesis Testing & Discussion

Hypothesis 1: Attitude towards purchase ----→ Intent to purchase

     H1: There is a significant impact of Attitude towards purchase on Intent to Purchase

         H1 Evaluates whether Attitude towards purchase has a significant impact on the Intent to purchase. The results revealed that attitude towards purchase has significant effect on Intent to purchase ($\beta = 0.632$, $t = 9.417$, $p \leq 0.05$). Hence H1 was supported.

Hypothesis 2: Concentration ----→ Attitude towards purchase

     H1: There is a significant impact of Concentration on Attitude towards purchase

         H1 Evaluates whether Concentration has a significant impact on Attitude towards purchase. The results reveals that there is no significant effect of concentration on Attitude towards purchase ($\beta = 0.041$, $t = 0.749$, $p \geq 0.05$). Hence H1 is rejected.

Hypothesis 3: Concentration ----→ Intent to purchase

     H1: There is a significant impact of Concentration on Intent to Purchase

H1 Evaluates whether Concentration has a significant impact on the Intent to purchase. The results revealed that attitude towards purchase has significant effect on Intent to purchase ($\beta = 0.154$, $t = 2.277$, $p \leq 0.05$). Hence H1 was supported.

Hypothesis 4: Controllability ----→ Perceived Behavior

H1: There is a significant impact of Controllability on Perceived Behaviour

H1 Evaluates whether Controllability has a significant impact on Perceived Behaviour. The results revealed that Controllability has significant effect on Perceived Behaviour ($\beta = 0.325$, $t = 3.167$, $p \leq 0.05$). Hence H1 was supported.

Hypothesis 5: Cost reduction ----→ Attitude towards Purchase

H1: There is a significant impact of Cost reduction on Attitude towards purchase

H1 Evaluates whether Cost reduction has a significant impact on Attitude towards purchase. The results revealed that Cost reduction has significant effect on Attitude towards Purchase ($\beta = 0.685$, $t = 15.616$, $p \leq 0.05$). Hence H1 was supported.

Hypothesis 6: Perceived ease of usage ----→ Attitude towards purchase

H1: There is a significant impact of Perceived ease of usage on Attitude towards purchase

H1 Evaluates whether Perceived ease of usage has a significant impact on Attitude towards purchase. The results reveals that there is no significant effect of Perceived ease of usage on Attitude towards purchase ($\beta = 0.035$, $t = 0.384$, $p \geq 0.05$). Hence H1 is rejected.

<u>Hypothesis 7: Perceived ease of usage ----→ Controllability</u>

H1: There is a significant impact of Perceived ease of usage on Controllability

H1 Evaluates whether PEOU has a significant impact on Controllability. The results revealed that PEOU has significant effect on Controllability (β = 0.407, t = 5.280, p $\leq$ 0.05). Hence H1 was supported.

<u>Hypothesis 8: Perceived ease of usage ----→ Self Efficacy</u>

H1: There is a significant impact of PEOU on SE

H1 Evaluates whether PEOU has a significant impact on SE. The results revealed that Perceived ease of usage has significant effect on Self Efficacy (β = 0.772, t = 21.952, p $\leq$ 0.05). Hence H1 was supported.

<u>Hypothesis 9: Perceived usefulness ----→ Attitude towards Purchase</u>

H1: There is a significant impact of Perceived usefulness on Attitude towards purchase

H1 Evaluates whether Perceived usefulness has a significant impact on Attitude towards purchase. The results revealed that Perceived usefulness has no significant effect on Attitude towards purchase (β = -0.008, t = 0.083, p $\geq$ 0.05). Hence H1 is rejected.

<u>Hypothesis 10: Perceived Risk ----→ Attitude towards Purchase</u>

H1: There is a significant impact of Perceived Risk on Attitude towards purchase

H1 Evaluates whether Perceived Risk has a significant impact on Attitude towards purchase. The results revealed that Perceived Risk has no significant effect

on Attitude towards purchase ($\beta = 0.017$, t = 0.283, p $\geq$ 0.05). Hence H1 is rejected.

<u>Hypothesis 11: Perceived Risk ----→ Controllability</u>

H1: There is a significant impact of Perceived Risk on Controllability

H1 Evaluates whether Perceived Risk has a significant impact on Controllability. The results revealed that Perceived Risk has significant effect on Controllability ($\beta = 0.191$, t = 2.308, p $\leq$ 0.05). Hence H1 was supported.

<u>Hypothesis 12: Perceived Behavior Control ----→ Intention towards Purchase</u>

H1: There is a significant impact of Perceived Behaviour control on Intention towards purchase

H1 Evaluates whether Perceived Behaviour control has a significant impact on Intention towards purchase. The results revealed that Perceived Behaviour control has no significant effect on Intention towards purchase ($\beta = 0.059$, t = 0.950, p $\geq$ 0.05). Hence H1 is rejected.

<u>Hypothesis 13: Self Efficacy -----→ Perceived Behavior Control</u>

H1: There is a significant impact of Self Efficacy on Perceived Behaviour Control

H1 Evaluates whether Self Efficacy has a significant impact on Perceived Behaviour Control. The results revealed that Self Efficacy has significant effect on Perceived Behaviour Control ($\beta = 0.405$, t = 3.747, p $\leq$ 0.05). Hence H1 was supported.

<u>Hypothesis 14: Shopping Enjoyment ----→ Attitude towards Purchase</u>

H1: There is a significant impact of Shopping Enjoyment on Attitude towards purchase

H1 Evaluates whether Shopping Enjoyment has a significant impact on Attitude towards purchase. The results revealed that Shopping Enjoyment has no significant effect on Attitude towards purchase ($\beta = 0.088$, $t = 0.708$, $p \geq 0.05$). Hence H1 is rejected.

<u>Hypothesis 15: Shopping Enjoyment -----→ Intention towards Purchase</u>

H1: There is a significant impact of Shopping Enjoyment on Intention towards Purchase

H1 Evaluates whether Shopping Enjoyment has a significant impact on Intention towards Purchase. The results revealed that Shopping Enjoyment has significant effect on Intention towards Purchase ($\beta = -0.188$, $t = 2.139$, $p \leq 0.05$). Hence H1 was supported.

<u>Hypothesis 16: Subjective Norm ----→ Intention towards Purchase</u>

H1: There is a significant impact of Subjective Norm on Intention towards Purchase

H1 Evaluates whether Subjective Norm has a significant impact on Intention towards Purchase. The results revealed that Subjective Norm has no significant effect on Intention towards Purchase ($\beta = 0.090$, $t = 1.316$, $p \geq 0.05$). Hence H1 is rejected.

<u>Hypothesis 17: Tele Presence ----→ Attitude towards Purchase</u>

H1: There is a significant impact of Tele Presence on Attitude towards Purchase

H1 Evaluates whether Tele Presence has a significant impact on Attitude towards Purchase. The results revealed that Tele Presence has no significant effect on Attitude towards Purchase (β = -0.033, t = 0.893, p $\geq$ 0.05). Hence H1 is rejected.

Hypothesis 18: Tele Presence ----→ Intention towards Purchase

H1: There is a significant impact of Tele Presence on Intention towards Purchase

H1 Evaluates whether Tele Presence has a significant impact on Intention towards Purchase. The results revealed that Tele Presence has no significant effect on Intention towards Purchase (β = -0.063, t = 1.077, p $\geq$ 0.05). Hence H1 is rejected.

Hypothesis 19: Time Distortion ----→ Attitude towards Purchase

H1: There is a significant impact of Time Distortion on Attitude towards Purchase

H1 Evaluates whether Time Distortion has a significant impact on Attitude towards Purchase. The results revealed that Time Distortion has no significant effect on Attitude towards Purchase (β = -0.034, t = 0.587, p $\geq$ 0.05). Hence H1 is rejected.

Hypothesis 20: Time Distortion ----→ Intention towards Purchase

H1: There is a significant impact of Time Distortion on Intention towards Purchase

H1 Evaluates whether Time Distortion has a significant impact on Intention towards Purchase. The results revealed that Time Distortion has significant effect

on Intention towards Purchase (β = 0.122, t = 1.768, p ≤ 0.05). Hence H1 was supported.

Hypothesis 21: Time Saving ----→ Attitude towards Purchase

H1: There is a significant impact of Time saving on Attitude towards Purchase

H1 Evaluates whether Time Saving has a significant impact on Attitude towards Purchase. The results revealed that Time saving has no significant effect on Attitude towards Purchase (β = 0.058, t = 0.528, p ≥ 0.05). Hence H1 is rejected.

Hypothesis 22: Trust ----→ Attitude towards Purchase

H1: There is a significant impact of Trust on Attitude towards Purchase

H1 Evaluates whether Trust has a significant impact on Attitude towards Purchase. The results revealed that Trust has significant effect on Attitude towards Purchase (β = 0.117, t = 1.677, p ≤ 0.05). Hence H1 was supported.

Hypothesis 23: Trust ----→ Controllability

H1: There is a significant impact of Trust on Controllability

H1 Evaluates whether Trust has a significant impact on Controllability. The results revealed that Trust has significant effect on Controllability (β = 0.228, t = 2.449, p ≤ 0.05). Hence H1 was supported.

5.3.8   Mediation analysis

Mediation analysis was done and there were three moderating variables which was observed

Mediation variable (1) - Concentration -----→ Intent to Purchase – Mediation of attitude of purchase between concentration and intention towards purchase does not exist. This means attitude of purchase does not have mediation effect on concentration and intent to purchase.

Mediation variable (2) – Cost reduction -----→ Intent to Purchase – Mediation of attitude of purchase exist between cost reduction and intent to purchase the mediation effect is high. If the consumer feels that there is cost reduction as compared to other sources, then attitude towards purchase increases drastically and thereby high intent of purchase.

Mediation variable (3) – Perceived ease of usage -----→ Intent to Purchase – Mediation of Self efficacy exist between perceived ease of usage and intent to purchase the mediation effect is high. If the consumer feels that the e-commerce portal makes self - efficient as compared to other sources, then perceived behaviour towards that e-commerce portal increases drastically and thereby high intent of purchase.

5.3.9 Moderation analysis

Gender

Moderation Analysis was done for Gender. Following are the outcomes as mentioned in the below moderation analysis.

1) Attitude towards purchase ----→ Intent towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means

that the path coefficient of males and females are not significantly different, Hence Attitude towards purchase affecting Intent towards purchase is equal in male and female.

2) Concentration ----→ Attitude towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, Hence Concentration affecting Attitude towards purchase is equal in male and female.

3) Concentration ----→ Intent towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, Hence Concentration affecting Intent towards purchase is equal in male and female.

4) Control ----→ perceived behaviour: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, Hence Control affecting perceived behaviour is equal in male and female.

5) Cost Reduction ----→ Attitude towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, Hence Cost Reduction affecting Attitude towards purchase is equal in male and female.

6) Perceived ease of usage ----→ Attitude towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence perceived ease of usage affecting Attitude towards purchase is equal in male and female.

7) <u>Perceived ease of usage ----→ Control:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence perceived ease of usage affecting Control is equal in male and female.

8) <u>Perceived ease of usage ----→ Self-efficiency :</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence perceived ease of usage affecting Self efficiency is equal in male and female.

9) <u>Perceived Usefulness ----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence perceived Usefulness affecting attitude towards purchase is equal in male and female.

10) <u>Perceived Risk ----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence perceived Risk affecting attitude towards purchase is equal in male and female.

11) <u>Perceived Risk ----→ Control:</u> Since the p value is less than 0.05, we interpret that there is significant difference in their path coefficient. This means that the path coefficient of males and females are significantly different, hence perceived Risk affecting control is not equal in male and female. The mean values of males are 0.291 and females are -0.141 hence males influence more on this path coefficient.

12) <u>Perceived Behaviour ----→ Intent towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that

the path coefficient of males and females are not significantly different, hence perceived behaviour affecting Intent towards purchase is equal in male and female.

13) <u>Self-efficiency----→ Perceived Behaviour:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence Self efficiency affecting Perceived Behaviour is equal in male and female.

14) <u>Shopping Experience ----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence Shopping experience affecting attitude towards purchase is equal in male and female.

15) <u>Shopping Experience ----→ Intent to Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence Shopping experience affecting Intent to purchase is equal in male and female.

16) <u>Subjective norm ----→ Intent to Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence Subjective Norm affecting Intent to purchase is equal in male and female.

17) <u>Tele Presence ----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence tele Presence affecting attitude towards purchase is equal in male and female.

18) <u>Tele Presence ----→ Intent to Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence Tele presence affecting Intent to purchase is equal in male and female.

19) <u>Time Distortion----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence time distortion affecting attitude towards purchase is equal in male and female.

20) <u>Time distortion ----→ Intent to Purchase:</u> Since the p value is less than 0.05, we interpret that there is significant difference in their path coefficient. This means that the path coefficient of males and females are significantly different, hence time distortion affecting Intent to purchase is not equal in male and female. The mean values of males are 0.175 and females are -0.184. hence males influence more on this path coefficient.

21) <u>Time Saving----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence time saving affecting attitude towards purchase is equal in male and female.

22) <u>Trust----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of males and females are not significantly different, hence trust affecting attitude towards purchase is equal in male and female.

23) <u>Trust----→ controllability:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of

males and females are not significantly different, hence trust affecting controllability is equal in male and female.

Marital Status

1) <u>Attitude towards purchase ----→ Intent towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Attitude towards purchase affecting Intent towards purchase is equal in married and unmarried people.

2) <u>Concentration ----→ Attitude towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Concentration affecting Attitude towards purchase is equal in married and unmarried people.

3) <u>Concentration ----→ Intent towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Concentration affecting Intent towards purchase is equal in married and unmarried people.

4) <u>Controllability ----→ perceived behaviour:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Control affecting perceived behaviour is equal in married and unmarried people.

5) <u>Cost Reduction ----→ Attitude towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the

path coefficient of married and unmarried are not significantly different, hence Cost Reduction affecting Attitude towards purchase is equal in married and unmarried people.

6) Perceived ease of usage ----→ Attitude towards purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived ease of usage affecting Attitude towards purchase is equal in married and unmarried people.

7) Perceived ease of usage ----→ Controllability: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived ease of usage affecting Control is equal in married and unmarried people.

8) Perceived ease of usage ----→ Self - efficacy: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived ease of usage affecting Self efficiency is equal in married and unmarried people.

9) Perceived Usefulness ----→ Attitude towards Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived Usefulness affecting attitude towards purchase is equal in married and unmarried people.

10) Perceived Risk ----→ Attitude towards Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the

path coefficient of married and unmarried are not significantly different, hence perceived Risk affecting attitude towards purchase is equal in married and unmarried people.

11) <u>Perceived Risk ----→ Controllability:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived Risk affecting controllability is equal in married and unmarried people.

12) <u>Perceived Behaviour ----→ Intent towards purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence perceived behaviour affecting Intent towards purchase is equal in married and unmarried people.

13) <u>Self-efficiency----→ Perceived Behaviour:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Self efficiency affecting Perceived Behaviour is equal in married and unmarried people.

14) <u>Shopping Experience ----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Shopping experience affecting attitude towards purchase is equal in married and unmarried people.

15) <u>Shopping Experience ----→ Intent to Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the

path coefficient of married and unmarried are not significantly different, hence Shopping experience affecting Intent to purchase is equal in married and unmarried people.

16) Subjective norm ----→ Intent to Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence Subjective Norm affecting Intent to purchase is equal in married and unmarried people.

17) Tele Presence ----→ Attitude towards Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence tele Presence affecting attitude towards purchase is equal in married and unmarried people.

18) Tele Presence ----→ Intent to Purchase: Since the p value is less than 0.05, we interpret that there is significant difference in their path coefficient. This means that the path coefficient of married and unmarried are significantly different, hence Tele presence affecting Intent to purchase is not equal in male and female. The mean values of Married people are 0.017 and unmarried are 0.215. hence unmarried influence more on this path coefficient.

19) Time Distortion----→ Attitude towards Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence time distortion affecting attitude towards purchase is equal in married and unmarried people.

20) Time distortion ----→ Intent to Purchase: Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path

coefficient of married and unmarried are not significantly different, hence time distortion affecting attitude towards purchase is equal in married and unmarried people.

21) <u>Time Saving----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence time saving affecting attitude towards purchase is equal in married and unmarried people.

22) <u>Trust----→ Attitude towards Purchase:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence trust affecting attitude towards purchase is equal in married and unmarried people.

23) <u>Trust----→ controllability:</u> Since the p value is greater than 0.05, we interpret that there is no significant difference in their path coefficient. This means that the path coefficient of married and unmarried are not significantly different, hence trust affecting controllability is equal in married and unmarried people.

Chapter VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS for future research and conclusion

6.1 Summary

Extended theory of planned behavior is one of the most comprehensive models that was studied in Indian context. India being one of the biggest self-consumption markets in the world, e-commerce will explode. All the big brands are investing in India and would fight for market share and hence consumer insight and behaviors will be key to success. Online consumer behavior is very different from off- line consumer behavior and hence study of an integrated model is of utmost importance. The advantage of integrated model is, it connects various dots which otherwise gets missed when studied individually. Online purchases have been proved to be the cumulative effect of various determinants during journey from search behavior to repeat purchases.

Amazon is the preferred e-commerce portal with ~ 70 % of the respondents have purchased something from the website during the last one month with majority of the respondents were greater than 30 years of age and have 5-6 years of surfing experience. In most of the studies the respondents were either young people or captive audience which was one of the drawbacks.

The model under study has 10 variables which cover most of the critical variables. The measurement model has a very internal consistency, composite reliability, and a strong convergent validity. Discriminant validity was checked by using Fornell & Larcker criterion and Heterotrait – Monotrait ratio and it was within the values mentioned by the earlier researchers.

Path coefficients were done to understand the strength between variables the results were as follows.

1) Intention towards purchase on Attitude towards purchase has a very high strength of relationship. Attitude towards purchase drives intention towards purchase and then the consumer buys finally. Intention towards purchase is a factor of many various and complex factors. It's an induced behaviour which gets developed over a period, also this can change for high value / low value items, Planned / Impulsive buying etc.

2) Concentration has moderate relationship on intention towards purchase however its mild but still the e-commerce portals must be careful and not to distract with ads and other product introductions at the time of purchases.

3) Controllability has moderate relationship on attitude towards purchase. This is biggest dilemma in any business who control the transaction the seller or the buyer. This perception plays a major role in any transaction specially with high value and planned purchases. Policies like cash on delivery, return of goods within a stipulated period etc. makes the consumer feel controllable on the transaction and hence can be a great selling proposition.

4) Cost reduction has a very strong relationship on attitude towards purchase. Consumer look at cost and organizations look at value for money. There is a strong relationship between cost reduction and attitude towards purchase. The portal which will succeed are those who can create a common ground on prices Vs value. Most of the online consumers tend to check offline prices and vice versa. The consumer goes to the e-commerce portal pick up the model number and check the prices at the retail outlets and negotiate. This is one of the major factors which needs to be accounted and strategized correctly.

5) Perceived ease of usage has medium relationship on controllability. Some of the e-portals seems to be complicated and the consumer may feel that they will lose the controllability. Complexity breeds confusion and thereby the chances are that the perception of tough

manoeuvrability will jeopardize the transactions. Leave the controllability to the consumer with controls systems in place and perceived ease of usage will increase.

6) Perceived ease of usage has strong relationship with self – efficacy. Self – efficacy may increase sales and faster transaction. Perceived ease of usage makes the consumer feels time saving. The feeling of sale – efficacy makes people to do repeat purchases. Consumer who may be a frequent visitor to a particular portal will may develop perceived ease of usage and thereby improve self – efficacy. Hence the hook of repeat buying is of utmost importance to this phenomenon.

7) Perceived risk has moderate relationship with controllability. This is one of the key factors which affects the buying behaviour. Controllability and perceived risk go hand in hand and sometimes low controllability increases perceived risk and high perceived risk may lead the consumer leaving the e-portal. In some cases, it may happen that all other parameters in the e-portal may be conducive but perceived risk can derail the buying process.

8) Self-efficacy has moderate relationship with perceived behaviour control . Most of the shoppers who visit the e-portals looks at convenience shopping and hence Self-efficacy plays a major role in the buying process. Self-efficacy increases perceived behaviour and thereby purchasing behaviour. The e-portals should aim at increasing self-efficacy for the consumers.

9) Shopping enjoyment has negative weightage on Intention towards purchase. To some shopping may not be joyful as it may be routine or tedious process. Shopping enjoyment can be occasional may be purchasing on a wedding anniversary or for a birthday etc. However, if the e-portal can create shopping enjoyment then it can increase intention towards purchase.

10) Trust has low relationship on controllability since trust builds over a period and after certain experiences that the consumers go through the buying cycle. Trust makes loyal customers and spreads word of mouth. Trust is easy to break and difficult to build and hence e-portal to be very careful about this factor.

Since all the parameters of measurement model was satisfactory the way forward was to evaluate structural model. VIF values were satisfactory and hence no collinearity issues were reported. R^2 measure the variance which is explained in each of the endogenous constructs and hence it's the measure of model's explanatory power. Most important variable is attitude towards purchase which has high variance on all the preceding variables and explains the measure of model's explanatory power. Time saving, Cost reduction, Perceived usefulness, Perceived ease of use, Controllability, Shopping enjoyment, Time distortion, Telepresence, Trust, and Perceived risk are all important factors which increases attitude towards purchase and thereby Intention to purchase.

Controllability is another major important variable from the customer point of view and has high variance on Perceived ease of use, Trust, and Perceived risk. Who owns the control makes all the difference if the customer feel the situation is in his control, then the perceived ease of usage and trust has to increase, and perceived risk has to be lowered the perceived risk the better the controllability.

Intent to online purchase is one of the key parameters for making purchase decision it has moderate R^2 value on attitude towards purchase, Perceived ease of usage, Controllability, Shopping enjoyment, Time Distortion, tele presence and subjective norm. Perceived behavior has moderate R^2 values and variance on controllability, and self-efficacy. Self-efficacy has moderate R^2 variance on perceived ease of usage. The results of F^2 clearly show that cost reduction is one of the most important variables to increase intent to purchase and then purchase. The consumer buys a product

if there is value for money. Consumers who are frequent visitors to e-commerce portal tend to check the prices and rest of the intermediatory variables may not play any major role. Perceived ease of usage has medium effect on controllability, however perceived risk and trust have small impact on controllability. Attitude towards purchase has large effect size on Intention to purchase. If the consumer has developed an attitude towards purchase, then it develops intention towards purchase.

Q^2 Predict - Attitude towards purchase, controllability, Intent to purchase, perceived behavioral control and self -efficacy has strong predictive relevance.

Standardized root mean square residual (SRMR) values are well within the considered limit. Normed fit index (NFI) value for the model confirms the model as good fit.

Hypothesis testing

a) There is a significant impact of Attitude towards purchase on Intent to Purchase.

b) There is no significant impact of Concentration on Attitude towards purchase.

c) There is a significant impact of Concentration on Intent to Purchase.

d) There is a significant impact of Controllability on Perceived Behaviour.

e) There is a significant impact of Cost reduction on Attitude towards purchase.

f) There is no significant impact of Perceived ease of usage on Attitude towards purchase.

g) There is a significant impact of Perceived ease of usage on Controllability.

h) There is a significant impact of Perceived ease of usage on Self Efficacy.

i) There is no significant impact of Perceived usefulness on Attitude towards purchase.

j) There is no significant impact of Perceived Risk on Attitude towards purchase.

k) There is a significant impact of Perceived Risk on Controllability.

l) There is no significant impact of Perceived Behaviour control on Intention towards purchase.

m) There is a significant impact of Self Efficacy on Perceived Behaviour Control.

n) There is no significant impact of Shopping Enjoyment on Attitude towards purchase.

o) There is a significant impact of Shopping Enjoyment on Intention towards Purchase.

p) There is no significant impact of Subjective Norm on Intention towards Purchase.

q) There is no significant impact of Tele Presence on Attitude towards Purchase.

r) There is no significant impact of Tele Presence on Intention towards Purchase.

s) There is no significant impact of Time Distortion on Attitude towards Purchase.

t) There is a significant impact of Time Distortion on Intention towards Purchase.

u) There is no significant impact of Time saving on Attitude towards Purchase.

v) There is a significant impact of Trust on Attitude towards Purchase.

w) There is a significant impact of Trust on Controllability.

Mediation Analysis

a) Mediation of attitude towards purchase between concentration and intention towards purchase does not exist.

b) Mediation of attitude towards purchase exist between cost reduction and intent to purchase the mediation effect is high.

c) Mediation of Self efficacy exist between perceived ease of usage and intent to purchase the mediation effect is high.

Moderation Analysis

Gender

a) Path coefficient of males and females are not significantly different on attitude towards purchase and intent towards purchase.

b) Path coefficient of males and females are not significantly different on concentration and attitude towards purchase.

c) Path coefficient of males and females are not significantly different on concentration and intent towards purchase.

d) Path coefficient of males and females are not significantly different on control and perceived behaviour.

e) Path coefficient of males and females are not significantly different on cost reduction and attitude towards purchase.

f) Path coefficient of males and females are not significantly different on perceived ease of usage and attitude towards purchase.

g) Path coefficient of males and females are not significantly different on perceived ease of usage and control.

h) Path coefficient of males and females are not significantly different on perceived ease of usage and self-efficiency.

i) path coefficient of males and females are not significantly different on perceived usefulness and attitude towards Purchase.

j) Path coefficient of males and females are not significantly different on perceived Risk and attitude towards Purchase.

k) Path coefficient of males and females are significantly different on perceived risk and controllability.

l) Path coefficient of males and females are not significantly different on perceived behaviour and intent towards purchase.

m) Path coefficient of males and females are not significantly different on self-efficiency and perceived behaviour.

n) Path coefficient of males and females are not significantly different on shopping experience and attitude towards purchase.

o) Path coefficient of males and females are not significantly different on shopping experience and intent to purchase.

p) Path coefficient of males and females are not significantly different on subjective norm and intent to purchase.

q) Path coefficient of males and females are significantly different on tele presence and intent to purchase.

r) Path coefficient of males and females are not significantly different on tele presence and intent to purchase.

s) Path coefficient of males and females are not significantly different on time distortion and attitude towards purchase.

t) Path coefficient of males and females are significantly different on time distortion and intent to purchase.

u) Path coefficient of males and females are not significantly different on time saving and attitude towards purchase.

v) Path coefficient of males and females are not significantly different on trust and attitude towards purchase.

w) Path coefficient of males and females are not significantly different on trust and controllability.

Marital Status

a) Path coefficient of males and females are not significantly different on attitude towards purchase and intent towards purchase.

b) Path coefficient of males and females are not significantly different on concentration and attitude towards purchase.

c) Path coefficient of males and females are not significantly different on concentration and intent towards purchase.

d) Path coefficient of males and females are not significantly different on control and perceived behaviour.

e) Path coefficient of males and females are not significantly different on cost reduction and attitude towards purchase.

f) Path coefficient of males and females are significantly different on perceived ease of usage and attitude towards purchase.

g) Path coefficient of males and females are not significantly different on perceived ease of usage and controllability.

h) Path coefficient of males and females are not significantly different on perceived ease of usage and self-efficiency.

i) path coefficient of males and females are not significantly different on perceived usefulness and attitude towards Purchase.

j) Path coefficient of males and females are not significantly different on perceived Risk and attitude towards Purchase.

k) Path coefficient of males and females are significantly different on perceived risk and controllability.

l) Path coefficient of males and females are not significantly different on perceived behaviour and intent towards purchase.

m) Path coefficient of males and females are not significantly different on self-efficiency and perceived behaviour.

n) Path coefficient of males and females are not significantly different on shopping experience and attitude towards purchase.

o) Path coefficient of males and females are not significantly different on shopping experience and intent to purchase.

p) Path coefficient of males and females are not significantly different on subjective norm and intent to purchase.

q) Path coefficient of males and females are significantly different on tele presence and intent to purchase.

r) Path coefficient of males and females are not significantly different on tele presence and attitude towards purchase.

s) Path coefficient of males and females are not significantly different on time distortion and attitude towards purchase.

t) Path coefficient of males and females are significantly different on time distortion and intent to purchase.

u) Path coefficient of males and females are not significantly different on time saving and attitude towards purchase.

v) Path coefficient of males and females are not significantly different on trust and attitude towards purchase.

w) Path coefficient of males and females are not significantly different on trust and controllability.

6.2 Implications

Consumer's acquisition and retention plays a major role for any business and so is the case of online business. With intense competition and race to become number one every e-commerce portal must study online consumer behaviour and align with the outcomes of the finding of the online consumer behaviour. Simplicity is the ultimate sophistication – Leonardo Da Vinci. Some of the e-commerce portal start with simplicity and end up in complexity and thereby become a nightmare for consumers. Consumer behaviour is a complex subject because perception also plays an important role as some feature may be simpler for some consumers and for some it becomes complex. Segmenting, targeting, and positioning is very important, but it also fails since the customer is totally engaged in shopping using technology and hence there will be additionally thought process that will play in the mind of consumers, without seeing a product one must decide and further complexity arises as some consumers buys intuitively some buys using the sixth sense and some buys on trust.

Cost and Implication of not studying and applying consumer behaviour on the right context can derail or even erode the consumer base. The variable which influences the decision making may change from geography, consumer profile, product specification, value of the products

planned Vs Impulse buying etc., Hence the e-portals must factor in all the complexities that's mentioned in the model and ease the buying phenomena to a happy and satisfying moment. E-commerce portal should ensure that during the consumer journey of buying process there should not be any anxiousness nor any fear or doubt about anything.

The model under study fits well in Indian context as the structural equation modelling results are very encouraging. Path coefficients clearly bring out the fact that attitude towards purchase has high correlation on intention towards purchase. However, intention and attitude towards purchase is an outcome of very complex and multidimensional variables such as economic value, perceived usage, perceived ease of usage, flow, trust, and perceived risk. These variables influence attitude towards purchasing strongly and thereby induces more impact on intention towards purchase also its important to note that the components of flow coupled with PEOU, trust, perceived risk, through controllability and self -efficacy through PBC increase intention towards purchase thereby leading to purchasing behaviour. Path analysis clearly brings out that concentration has moderate relationship on intention towards purchase and controllability on attitude towards purchase.

Cost reduction is one of the strong variables which enhances attitude towards purchase. Consumers in India still buys products and services from those e-commerce portals which offers them discounts and schemes. More than discounts and schemes its value for money which drives the consumer to the portal. Many of the Indian consumers do market research and window shopping before finalising on any products especially for high value items, even in small value purchases the best offers are considered and when consumers come to a particular portal, they try to understand the offers and discounts which are available in the market in both online and offline mode. Consumers buys products on trust and if trust is broken

if a product is bought at higher prices than the market prices. Perceived ease of usage increases controllability and self-efficacy and both are important to increase purchasing behaviour. High perceived risk is one of the hurdles for not purchasing from a particular e-portal if the consumer feels that perceived risk is high then the consumer feels less control on the website and may affect the attitude and intention towards buying and may exit the portal without purchasing any products. Self-efficacy moderates perceived behaviour control and thereby increases perceived behaviour control leading to purchase behaviour. Shopping is not an enjoyment and does not impact intention towards purchase, maybe most of the times it may be a routine shopping and the consumers may buy the product of their choice quickly and make an exit making it more transactional with limited scope of shopping enjoyment, However shopping can be enjoyed by a consumer on certain special occasion hence e-commerce portal should capture the details of those special moments and encash and build features for making it memorable event . The paradigm of shopping enjoyment has changed over a period with the evolution of malls culture in the country which gives end to end enjoyment to consumers with options for dining, window shopping, gaining knowledge and experience about products and solutions, seeing, and feeling and most importantly spending time with family and friends.

Trust has low relationship with controllability as trust builds over a period, however trust is very important since it increases the chances of buying from the trusted e-commerce portal. Attitude towards purchase is the most important variable with high variance on the preceding variables. Most of the preceding variable has high influence on attitude towards purchase and thus leads to intention towards purchase and then finally leading to buying behaviour. Controllability plays an important role from the consumer point of view, and it influences perceived ease of use, trust, and perceived risk. Controllability is in terms of having upper hand

if there is a dispute or dissatisfaction. It may be as a small issue such as query resolution, exchange of goods to refunds. Perception of having control on the buying decision to repeat buying is very important from the consumer point of view.

Since the model fits well in the Indian context the Q^2 predict values clearly indicates that attitude towards purchase, controllability, intent to purchase, perceived behaviour control and self-efficacy has strong predictive relevance.

Hypothesis testing shows the following variable has significant impact

1) Attitude towards purchase has significant impact on Intention towards purchase.

2) Concentration has significant impact on intention towards purchase.

3) Controllability has significant impact on perceived behaviour.

4) Cost reduction has significant impact on attitude towards purchase.

5) Perceived ease of usage has significant impact on controllability.

6) Perceived ease of usage has significant impact on self -efficacy.

7) Perceived risk has significant impact on controllability.

8) Self- efficacy has significant impact on perceived behavioural control.

9) Shopping enjoyment has significant impact on Intention towards purchase.

10) Time distortion has significant impact on intention towards purchase.

11) Trust has significant impact on attitude towards purchase.

12) Trust has significant impact on controllability.

Mediation analysis is one of the important evaluation methodologies in structural equation modelling as some of the mediating variables influences more on the outcomes. The model under consideration has two moderating variables. Moderating variables enhances the decision-making

process and hence its linkage with the outcome must be studied in a complex model such as online buying behaviour.

1) Cost reduction increases attitude towards purchase and in turn Intention towards purchase.

2) Perceived ease of usage increases self-efficacy and in turn increases intention towards purchase.

Moderation analysis was done on two important demographics Gender and Marital status. These two factors deeply influence the buying behaviour and differ in few variables. Moderation analysis on gender shows that the following path coefficients are significantly different on the following variables.

1) Path coefficients are significantly different in Perceived risk towards controllability.

2) Tele presence towards intention towards purchase.

3) Time distortion towards Intention towards purchase.

For the rest of the variables and path coefficients there was no significant difference observed between male and females. In case of marital status, the following path coefficients are significantly different on the following variables.

1) Perceived ease of usage towards attitude towards purchase.

2) Perceived risk towards controllability.

3) Tele presence towards Intention towards purchase.

4) Time distortion towards intention towards purchase.

6.3 Recommendations for future research and conclusion

Online consumers are very different from offline consumers, and they exhibit different buying behaviours. Online buying behaviours are more complex and involves technological

advancements and influences behaviour changes from technological point of view, buying without seeing , intuitive buying , buying without using the five senses etc. India with its growth story will attract more FDI and investments in retail e-commerce space including banking, services, and travel industry to name a few. It's hard to imagine life without digital and e-commerce with some the sectors have 80 % penetration. With the introduction of 5G the e-commerce will explode with more investments and even brick and mortar companies will invest heavily in this space. The more the investment the more the need for studies in the online consumer space. The buying process necessarily follows the below sequence.

a) Recognition of need

b) Evaluation of options

c) Elimination of doubts

d) Close

And the online selling process has to follow the below sequence

a) Create awareness.

b) Attract consumers to the portal.

c) Bring up the choices – the most attractive ones.

d) Profile the consumers.

e) Develop the buying process.

f) Propose solutions.

g) Eliminate doubts.

h) Close

This process can be followed with the invention of AI, machine learning, IOT etc. E-portal companies must invest money in understanding consumer behavior and its effects on purchase

decision. Study of buying and selling cycle with AIDA principle (Attention, Interest, Desire or Decision, Action) will not only help the e-portal to attract consumers but also will help them retention strategies. The race for customer acquisition and retention will give more options and choice to the consumers. The model under study fits well in the Indian context further exploration of each individual variable must be studied well and more models to be developed for studying consumer behavior. Segmenting the consumers into various categories and studying them will also help the e-commerce companies to target and position themselves in a much better way. Online Buying behavior changes with product categories and services segment as well. Consumer's will exhibit different behaviors for high value and low value products, implicit and explicit needs, product, and service buying etc. Most e-commerce portal also follow the rules of forward and backward integration without clearly identifying the consumer needs and the existing gaps and hence end up making losses. Example: An airline ticketing travel portal offering hotel and site seeing service fails miserably as it loses the sharp positioning as an airline ticket service and then gets into cluttered marketing, moreover the strategies for customer acquisition and retention may be significantly different and has to be studied separately. Online consumers study has to be done separately on customer acquisition and retention as strategies for both would be significantly different. For consumer retention strategy sequence of events to be studied to arrive at the conclusion of what hold a consumer to the portal. Sequence of events will develop perception and each touch points will derive attitude and then retention and repeat purchase or quit. Future study should also figure out motivation for everyone rather than developing strategies for collective groups. With technological advancement it's possible to undertake these kinds of studies and auto build measurement systems and integrate with the buying and selling process to amalgamate the

correct influx points and hook the consumer at the right place. The future studies should focus on consumer behavior at every touch point this will help the business to map what is the consumers looking for and how does offering and solutions will attract consumer to visit more frequently. Profiling of consumers into different deciles will also help to customize solutions and products. Instead of doing it at one go system alignment can be such that in few visits one will be able to capture maximum details in five to six touch points. A combination of behavioral and functional requirement can be captured to fine the needs of the consumers.

Future online consumer study should be done on a more comprehensive model involving all the actors namely.

1) Individual determinants

2) Environmental determinants

3) Technology determinants

4) Product or service determinants

5) Online merchant or Intermediatory determinants

These are the five factors that will play a major role for online consumers to make purchase decision and practioners can very well work on these determinants to ensure consumers get attracted to their portals and retained with them over a longer period of time

The variables to be studied under Individual determinants.

1) Time saving

2) Value for money

3) Convenience

 a. Availability

b. Buying

c. Delivery

4) Trust

    a. Genuine products

    b. Money back / guarantee / Warranty

    c. Return policy

    d. Safe transaction

5) Complaint redressal system

6) Guidance for buying the right products

7) Self – efficacy

8) Controllability

9) No risk – safe and good privacy policy

10) Transparent in dealing

11) Loyalty program

12) Tele service

The variables to be studied under Structural determinants.

1) Seamless buying process

2) Better discounts compared to other portals

3) One stop shop for all needs

4) Non opportunistic

5) Consistent policy

6) Options for VR

7) Options for customization

8) Helps in the buying process

    a. Range

    b. Discounts

    c. Specifications

    d. Show's ratings and feedbacks

9) Strong referrals

The variables to be studied under Technology determinants

1) Easy to buy

2) No language barriers

3) Ease of check in and check out

4) System fastness

5) No complication

The variables to be studied under Product and service determinants

1) Product and Price Range

2) Availability of Branded products and private labels

3) One stop solution

4) Made to order

5) Quality and quantity guaranteed

The variables to be studied under Online merchant intermediary determinants

1) Trusted banking partner

2) Data Security and privacy

3) Ease of transaction

4) No transaction failure

5) Multiple transaction options

6) No cost payment methods

E-commerce study on consumers has evolved from a complex study to simple ones. At the start of 80's the challenges were more Information technology, trust , logistics related.

6.3 Recommended model for future research
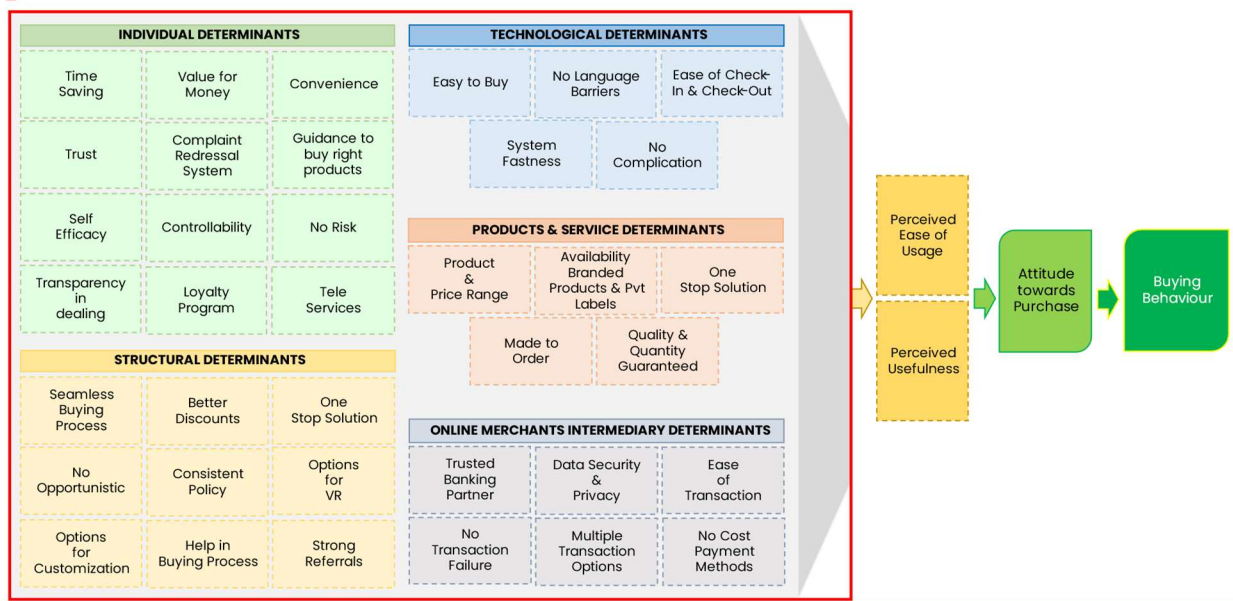
E- commerce businesses have evolved and progressed substantially over the last decade with most of the business domains and portals have made significant effort to understand consumer behavior and its impact on business. The unified model of the yester years was good with the context at the time. Technology and consumer behaviour has evolved over the years and hence the model needs to be evolved. With AI, deep learning, machine learning, Virtual Reality things are different and

hence the challenges are different. The above suggested model captures all the needed consumer behaviour which will enhance sales by retaining and acquiring new customers. The new suggested unified model must study the overall dynamic consumer behaviour which may vary in every transaction. The ever-evolving consumer needs must be addressed dynamically and should capture overall essence of the consumer behaviour rather than capturing in bits and pieces. The above suggested model captures all the important determinants which studied can enhance better customer experience and at the same time increase stickiness thereby increase sales. Perceived ease of usage and perceived ease of usefulness determines the buying behaviour through attitude towards purchase. Perceived ease of usage though seems to be more of technology driven, however perceived ease of usage can also be influenced by factors such availability of products, range of products, Lowest negotiated prices etc. Perceived usefulness encapsulates the essence of feeling that the current e-portal is useful in all aspects and beneficial from the buyer's point of view.

BIBLIOGRAPHY

Amna Sirhindi (2010). A critical review of in store and online impulse behaviour, Master of Business administration, Oklahoma state university, Stillwater Oklahoma.

Augustine T. Ekwere (2002). Effects of Value integration on online consumer behaviour, PhD Thesis, Capella University.

Abhishek Singh., Dipankar Dey., Sukanta Chandra Swain (2015).A framework for studying customer behaviour in the context of developing customer retention strategies in Telecom Industry of Bihar (India), *American Research Journal of Business and management*, *Volume 1* (Issue 3), www.arjonline.com.

Ajzen I (2002). Conceptual and methodological considerations, Working Paper, Constructing a TPB questionnaire: University of Massachusetts, Amherst.

A Bhattacharjee (2002). Individual trust in online firms: Scale development and itialtes, Journal *of Management Information Systems*, *Volume 19(1)*, PP: 211-241.

Amel Graa., Maachou Dani-elkebir (2011). Application of Stimulus & response model to impulse buying behaviour of Algerian Consumers, *Serbian Journal of Management*, *Volume 7(1),* PP: 53-64.

Anders Hasslinger., Selma Hodzic., Claudio Opazo (2007). Consumer behaviour in online shopping, PhD Thesis, Kristianstad university, Department of business studies.

Alet C Erasmus., Elizabeth Boshoff & GG Rousseau (2001). Consumer decision-making models within the discipline of consumer science: A critical approach, *Journal of Family Ecology and Consumer Sciences*, *Volume. 29.*

Abhijit Das, Raj Jaiswal, Unni Ravi Sankar, Amit Thakur, Kamlesh Kumar Acharya, Poulomi Ray (2020). Indian E- Commerce Scenario, *Mult logic in Science, Volume 10(33)*.

Alireza Karbasivar and HastiYarahmadi (2011). Evaluating effective factors on consumer impulse buying behaviour, *Asian journal of business management Studies Volume 2(4)*, PP: 174-181.

Amy Renee Reitz (2012). Online consumer engagement understanding the antecedents and outcomes, PhD Thesis, Colorado State University, Fort Collins Colorado.

Angie Marie Cox (2016). Consumer behaviour in virtual worlds, PhD Thesis, Trident University International, Cypress, California.

Augustine T Ekwere (2002). Effects of value integration on online consumer behaviour, PhD Thesis Capella University.

Alina Stankevich (2017). Explaining the consumer decision- making Process: critical Literature review, *Journal of International Business Research Marketing, Volume 2(6)*, http://dx.doi.org/10.18755/jibrm.1849-8558.2015.26.3001.

Ankit Kumar Bhagat (2015). E-commerce in India: Growth future & barriers, *International Journal of management, IT and Engineering, Volume 5(12).*

Bhumika Pahwa (2015). A review of consumer online buying behaviour, *International Conference on Technologies for Sustainability- Engineering, Information Technology, Management and the Environment*, DAV Institute of Management, Faridabad, ISBN: 978-81-931039-7-5.

Bo-Chiuan Su (2002). Economic and empirical analysis of consumer purchase intentions in electronic and traditional retail channels, internet retailer pricing strategies, and price dispersion on the Internet, PhD thesis, University of Connecticut.

Bellman., Steven Lohse., Gerald., Johnson Eric J (1999). Predictors of online buying behavior, *Communications of the ACM, Volume 42 (12),* PP: 32-38.

Biswas., Dipayan & Biswas., Abhijit (2004). Perceived risks in online shopping: Do Signals matter more on the web, *Journal of Interactive Marketing, Volume 18 (3),* PP: 30-45.

Balabanis., Reynolds., Simintiras (2006). Bases of e-store loyalty: perceived switching barriers and satisfaction. *Journal of Business Research*, *Volume 2*, PP: 214-224.

B Mittal (1989). Measuring purchase - decision involvement, *Psychology & Marketing*, *Volume 6,* PP: 147-162.

Burns D (2006). Consumers' decision-making styles: Relationships with attitude toward consumer free-riding activity, *Marketing Management Journal*, *Volume 16(1),* PP: 148-157.

Ba. S & Pavlou, PA (2002). Evidence of the effect of trust in electronic markets: price premiums and buyer behavior, *MIS Quarterly, Volume 23(4),* PP: 243-268.

B Detlor., S Sproule & C Gupta (2003). Pre-purchase online information seeking: Search versus browse, *Journal of Electronic Commerce Research, Volume 4(2),* PP: 72-84.
B Kahn (2002). Cross-category effects of induced arousal and pleasure on the Internet shopping experience, Journal of Retailing, Volume 78, PP: 31-40.

Carol D. Portillio (2017). The online consumer: An examination of gender, age, Income and Education as determinants- of online repurchasing, PhD Thesis, North Central University, Prescott Valley, Arizona.

Claire Whang (2018). Voice shopping: The effect of the consumer- voice assistant Para social relationship on the consumer's perception and decision making, PhD Thesis, University of Minnesota.

Chao Wen (2012). The Impact of Quality on Customer Behavioural Intentions Based on the Consumer Decision Making Process as Applied in E- Commerce, PhD Thesis, University of North Texas.

Chayapa Katawetawaraks., Cheng Lu Wang (2011). Online shopper behaviour: Influence of online shopping decision, *Asian Journal of Business Research, Volume -1(2),* DOI 10.14707/ajbr.110012.

Chuanlan Liu (2004). Modelling consumer adoption of the Internet as a shopping medium: An integrated perspective, PhD Thesis, Auburn University, Alabama.

Charles Dennis., Lisa Harris., Balraj Sandhu (2002). From bricks to clicks: Understanding the e-consumer, qualitative market research: *An International journal, Volume 5 (4),* PP: 281-290.

Ciju T. R Nair (2010). Essays on online browsing and purchase, PhD Thesis, Washington University, Saint Louis, Missouri.

Charles Dennis., Bill Merrilees., Chanaka Jayawardena & Len Tiu Wright (2009).E-Consumer Behaviour, *European Journal of Marketing, Volume 43(9/10),* PP: 1121-1139.

Camacho-Otero J., Pettersen I.N. and Books C, Consumer, and user acceptance in the circular economy: What are researchers missing? *Product lifetimes and the environment 2017*, *conference proceedings.*

Catherine Herve, Etienne Mullet (2009). Age and factors influencing consumer behaviour, *International Journal of consumer studies*, ISSN 1470-6423.

Chanaka Jayawardhena, Len Tiu Wright (2008). An empirical investigation into e-shopping excitement: antecedents and effects, European Journal of Marketing, Volume 43 (9/10), PP: 1171-1187.

Charles Dennis., Chanaka Jayawardhena., Eleni-Konstantina Papamatthaiou (2010). Antecedents of internet shopping intentions and the moderating effects of substitutability, The international Review of Retail, Distribution and Consumer Research, Volume. 20, (4), PP: 411-430.

C Cheung., G Chan., & M Limayem (2005). A critical review of online consumer behavior Empirical research, Journal of Electronic Commerce in Organizations, Volume 3(4), PP: 1-19.

C Finneran., & P Zhang., (2005). Flow in computer-mediated environments: Promises and challenges. Communications of the Association for Information Systems, Volume 15, PP: 82-101.

C Kocas (2003). Evolution of prices in electronic markets under diffusion of price comparison shopping, Journal of Management Information Systems, Volume 19(3), PP: 99-119

C Ranganathan., Ganapathy & Shobha (2002). Key dimensions of business – to -customer websites, Information & Management, Volume 39, PP: 457–465.

C M Ridings., D Gefen & B Arinze (2002). Some antecedents and effects of trust in virtual communities, Journal of Strategic Information Systems, Volume 11(3/4), PP: 271-295.

D Gefen., & D W Straub (2000), The relative importance of perceived ease-of-use in IS adoption: A study of e-commerce adoption, Journal of the Association for Information Systems, Volume 1(8), PP: 1-30.

D Koo (2006). The fundamental reasons of e-consumer's loyalty to an online store. Electronic

Commerce Research and Applications, Volume 5, PP: 117-130.

Dan Jong Kim (2002). Three essays on trust in business-to- consumer electronic commerce, PhD Thesis, State University of New York, Buffalo.

Dr. R Nageshwari (2019). The evolution of consumer behaviour in Digital Age, UGC Journal. No 45489, EOI.10.11229.

Duralia Oana (2016). Particularities of the European consumer's behaviour in online environments, Studies in business & economics, Volume – 11(3), DOI 10.1515/sbe-2016-0032.

Dr. Vandana Sonwaney., Snehal Chincholkar (2019) identifying the factors impacting online consumer buying behaviour, International Journal of Scientific & Technology Research, Volume 8(8).

Dr. Santanu Borah., David Black (2020). E-commerce in India: The Last Frontier, Journal of Business, Industry and Economics, Volume 25, PP: 89-111.

Dr. Asif Ali Syed, Asma Khan (2017). A study on E- tailing: factors influencing the online consumer behaviour of Indian Consumers, Excellence International Journal of Education and Research, ISSN 2349-8838.

Dung H. Nguyen., Sander de Leeuw & Wout E.H Dullaert (2018). Consumer behaviour and order fulfilment in online retailing: A systematic Review, International Journal of management Reviews, Volume- 20, PP: 255-276.

Deloris W. Easley (2016).An exploratory study on perceived risk, benefits, and online buying behaviour from a cross – cultural perspective, PhD thesis, Capella University.

Dr, Sanjay Hooda., Mr. Sandeep Aggarwal (2012). Consumer behaviour towards e- marketing: A study of Jaipur consumers, Journal of Arts, Science & Commerce, Volume 3. (2).

Dr. Jitendra Bhandari., Dr. Sunil Dhanavade., Dr. Vijay Dhamore (2021). Consumer behaviour towards e- shopping in Pune city, Sambodhi (UGC care Journal), Volume 44(1).

Dr. Sunanya Khurana., Ms Baljinder Kaur (2017). Online Consumer Behaviour Models: A Literature Review, Biz and Bytes, Volume 8 (1).

Dr. R. Kalpana., Dr. Shibu N.S (2016). Influence of few variables on consumer buying behaviour, International Journal of Management, Volume 7 (7), PP: 387-394.

Dr. Rizwana Bashir., Isramehboob., Waqas Khaliq Bhatti (2015). Effects of online shopping trends on consumer- buying behaviour: An empirical study of Pakistan, Journal of Management & Research, Volume 2 (2).

Desai A (2006), Adaptive India - Changing Market scenario, European Association for Comparative Economics Studies EACES 9th Bi-Annual Conference: Development Strategies– A Comparative View.

Donthu., Naveen & Garcia., Adriana (1999). The Internet Shopper, Journal of Advertising Research, Volume 39 (3), PP: 52-58.

D J Kim., W G Kim., & J S Han (2007). A perceptual mapping of online travel agencies and preference attributes, Tourism Management, Volume 28(2), PP: 591-603.

D Lee., & C Sohn (2004), Trust and switching cost to build e-loyalty in Internet markets. International Journal of Internet and Enterprise Management, Volume 2(3), PP: 209-220.

Eleazar Gil Herrera (May2009). A multiagent framework for consumer behaviour and purchase intentions in electronic commerce, Master of science, Industrial Engineering, University of Puerto Rico, Mayaguez campus.

Elizabeth Parsons., Pauline Maclaren, Contemporary Issues in marketing and Consumer Behaviour, Butterworth- Heinemann, Elsevier Ltd.

EunkYung Chung (2001). Factors influencing Purchase Decisions of Online Apparel Shoppers, PhD Thesis, University of California.

Ekaterina Merzlyakova., Irina Ershova & Evgeniy Bridskiy (2021). Main trends in the development of the global E-commerce market, SHS Web of Conference 110, 01035.

Enrico Colla., Paul Lapoule (2012). E-commerce: Exploring the critical success factors, International Journal of Retail & Distribution management, Volume 40 (11), PP: 842-864.

E Rigdon (2004), Play, flow, and the online search experience, Journal of Consumer Research Volume 31, PP: 324-332.

Frederick Allen Volk (2001). Internet Users Attitudes and E-Commerce Behaviours, PhD Thesis, Graduate School of Wichita State University.

Goldsmith., E Ronald., Freiden., B Jon., Eastman., K Jacqueline (1995), The generality / specificity issue in consumer innovativeness research. Technovation Volume 15(10), PP: 601-612.

Gordon R. Foxall (1993). Consumer behaviour as an evolutionary process, European Journal of Marketing, Volume 27 (8): PP -46-57.

Gabriela Hanus (2016). Consumer behaviour during online grocery shopping, CBU International Conference of Innovations in Science and Education,

Hemanti Richa., Shaili Vadera (2019). Determinants of Online shopping behaviour in India, International journal of recent Technology and Engineering, Volume .8 (3).

HH. Bauer., NE. Sauer & C. Becker (2006). Investigating the relationship between product involvement and consumer decision-making styles, Journal of Consumer Behaviour, Volume 5, PP: 342-354.

Hubacek., Klaus., Guan., Dabo., Barua., Anamika (2007). Changing lifestyles and consumption patterns in developing countries - A scenario analysis for China and India. Futures Volume 39 (10), PP: 1084-1096.

Hoffman., Donna L., Novak, Thomas P., Peralta., Marcos (1999). Building Consumer 's Trust Online. Communication of the ACM, Volume 42 (4), PP: 80-85.

Ieva Andersone., Elina Gaile-Sarkane (2009). Behavioural differences in consumer purchasing behaviour between online and traditional shopping, Case of Latvia, Economics and Management: ISSN 1822-6515.

Iksuk Kim (2001). Investigating effect of consumers perceived risk on purchase intention in internet shopping, PhD Thesis, Purdue University Graduate School.

I Phau & S M Poon (2000). Factors influencing the types of products and services purchased over the Internet, Internet Research: Electronic Networking Applications and Policy, Volume 10(2), PP: 102-13.

J A Ghani., R Supnick., & P Rooney (1991). The experience of flow in computer-mediated and in face-to-face groups, Proceedings of 12th International Conference of Information Systems, New York, PP: 229-237.

James A. Ramos (2003). A model of consumer external price search behaviour in an electronic marketplace (World – Wide – Web), PhD Thesis, Michigan state university.

Jayendra Sinha (2010). Factors affecting Online Shopping Behaviour of Indian Consumers, Degree of Masters in Retailing, University of South Carolina.

Jee Young K. Kim (2005). Factors Influencing Consumers Apparel Purchasing Intention in the C2C e – Commerce Market, PhD Thesis, Lincoln, Nebraska.

Jared Joseph Watson (2018). Aspects of online reviews and their effects in consumer decisions, PhD thesis, University of Maryland, College Park.

Jisana T.K (2014). Consumer behaviour models: An overview, Sai Om Journal of Commerce and management, Volume 1(5).

Jieun Chang (2013). Three papers on Firm and consumer behaviour in online markets, PhD Thesis, Department of Economics, University of Colorado.

Jae-Jin Park (2003). Understanding consumer intention to shop online – A model comparison, PhD Thesis, faculty of the Graduate School, University of Missouri – Columbia.

Jongeun Kim (2004). Understanding Consumers online shopping & purchasing behaviours, PhD Thesis, Graduate College of Oklahoma State University.

Jiyeon Kim (2006). Sensory Enabling Technology Acceptance Model (SE-TAM): The usage of sensory enabling technologies for online apparel shopping, PhD Thesis, Auburn, Alabama

JonidaXhema (2019). Effect of Social Networks on Consumer Behaviour: Complex buying, International Federation of Automatic Control, IFAC Papers online 52-25, PP: 504-508

Jolanta Sabaityte., Vida Davidaviciene (2018). The Analysis of Internet marketing Research Directions, Marketing and Digital Technologies, Volume 2(1),

C Scherer & D Scheufele, J Joines (2003). Exploring motivations for consumer web use and their implications for e-commerce, Journal of Consumer Marketing, Volume 20(2), PP: 90-109.

J L Lin., H C Chan., & K K Wei (2006), Understanding competing application usage with the theory of planned behaviour. Journal of the American Society for Information Science and Technology, Volume 57(10), PP: 1338–1349.

J B Lohmoller (1989), The PLS program system: Latent variables path analysis with partial least squares estimation Multivariate Behavioural Research, Volume 23, PP: 125-127.

J S Siekpe (2005), An examination of the multidimensionality of flow construct in a computer-mediated environment, Journal of Electronic Commerce Research, Volume 6(1), PP: 31-43.

Kishwar A. Joonas (2004). An empirical investigation of a model of environmentally concerned consumer behaviour and its determinants: The moderating role of market mavenship and product involvement, PhD Thesis, College of Administration and Business, Louisiana Tech University.

Komal Sharma (2020). A surge in E- Commerce market In India after covid – 19 Pandemic, A global journal of social sciences, ISSN 2581-5830.

Mahmood Hajli (Oct 2012). A research framework for social commerce adoption, Information management & Computer security, Volume .21 (3).

Krishan Kumar Boora., Kiran (2018). An Empirical study of measuring online consumer behaviour towards consumer durables in India. ELK ASIA Pacific Journal of Marketing and Retail Management, Volume 9 (1).

Kenneth L. Flick (2009). Assessing consumer acceptance of online shopping: Examining Factors affecting purchase intentions, PhD thesis, Prescott Valley, Arizona

Katarzyna Szalonka., Agnieszka Sadowa., Aleksandra Wicka., LudwikWicki (2020). E-commerce purchasing behaviour and the level of consumers Income in Poland and Great Britain, European Research Studies Journal, Volume XXIII, PP: 552-568.

Karayanni., A Despina (2003), Web-shoppers and non-shoppers: Compatibility, relative advantage and demographics, European Business Review, Volume 15(3), PP: 141-152.

Kumar., Archana., Lee., J Hyun & Youn., K Kim (2008). Indian consumers' purchase intention toward a United States versus local brand. Journal of Business Research Volume 62(5), PP: 521-527.

Koyuncu., Cunyet., Bhattacharya., Gautam (2004). The impacts of quickness, price, and payment risk, and delivery issues on on-line shopping. Journal of Socioeconomics, Volume 33(2), PP: 241-251.

K E Reynolds & S E Beatty (1999). Customer benefits and company consequences of customer-sales person relationships in retailing, Journal of Retailing, Volume 75(1), PP: 11-32.

Lisa Watson., Mark T Spence (2007). Causes and consequences of emotions on consumer behaviour – A review and integrative cognitive appraisal theory, European Journal of Marketing, Volume. 41, PP: 487-511.

Lei-da Chen (2000). Consumer acceptance of virtual stores: A theoretical model and critical success factors for virtual stores, PhD thesis, The University of Memphis.

Lin Hao (2012). The New Era of electronic commerce: Mobile commerce, electronic book market and novel online retail strategies, PhD Thesis, University of Washington.

Lingling Gao., Xuesong Bai (2014). Online consumer behaviour and its relationship to website atmospheric induced flow: Insights into travel agencies in China, Journal of Retailing and Consumer Services, PP: 653-665, www.elsevier.com/locate/jetconser.

Lloyd C. Harris., Alexia Dumas (2009). Online consumer misbehaviour: An application of neutralization theory, Marketing Theory Articles, Volume 9(4), PP: 379-402.

Lewis., Michael (2006). The effect of shipping fees on customer acquisition, customer retention, and purchase quantities. Journal of Retailing, Volume 82 (1), PP: 13-23.

Momen Nachar (2019). Factors that Predict the Adoption of Online Shopping in Saudi Arabia, PhD Thesis, Walden University.

Mahek Iram., Dr. D. Y Chacharkar (2017). Model of Impulse buying behaviour, BVIMSR's Journal of Management Research, Volume 9(1)

Mahmood Hajli (Oct 2012). A research framework for social commerce adoption, Information management & Computer security, Volume .21 (3).

Michael J. Baker., Michael Saren, E 2010, Marketing Theory, Sage Publications Ltd, London.

Mei-Li Chou (2006). Influence of Taiwan consumer beliefs in website attributes and E-shopping Attitudes on E-Shopping Intentions, PhD Thesis, Lynn University.

M Koufaris (2002). Application of Flow theory & TAM Venkatesh to online consumer behaviour, Information Systems Research, Volume 13(2), PP: 205223.

M S Lee., I Kim., S Rhee., & S Trimi (2006), The role of exogenous factors in technology acceptance: The case of object – oriented technology Information & Management, Volume 43.

M E Porter (2001), Strategy and the Internet, Harvard Business Review, PP: 63-78.

Nelson Phillip (1970). Information and Consumer Behaviour. Journal of Political Economy, Volume 78 (2).

Neelam Chawla., Basanta Kumar (2021). E-commerce and consumer protection in India: The Emerging Trend, Journal of Business Ethics. https://doi.org/10.1007/s10551-021-04884-3.

Nayyer Naseem (2017). Global brands and Drivers of Consumers Purchase behaviour: A Multi-Dimensional Perspective, PhD Thesis, Wayne State University, Detroit Michigan.

Orji. O. Goodhope (2013). Major classic consumer buying behaviour models: Implications for marketing decision making, Journal of Economics and Sustainable Development, Volume 4(4).

Persefoni Polychronidou., Stravos Valsamidis., Ioannis Kazanidis., Theodosios Theodosiou., Anastasios Karasavvoglou (2013). E- Consumers perception – An Empirical research, The economics of Balkan and eastern Europe countries in the Changed World, Procedia Economics and Finance, Volume 9 , PP : 433-438.

Pei-Chun Chao (2010). Online information search behaviour Vs experience Goods, Master of Science, Purdue University, West Lafayette, Indiana.

Philips Kotler (2011). Philip Kotler's contributions to marketing theory and practice, Review of marketing research: Special issue – Marketing legends, Volume 8, PP: 87-120

P Korgaonkar., R Silverblatt & T Girard (2006). Online retailing, product classifications, and consumer preferences, Internet Research, Volume 16(3), PP: 267-288.

R P Bagozzi (2000). On the concept to intentional social action in consumer behaviour, Journal of Consumer Research, Volume 27, PP: 388-396.

Raffi Sarmazian (2005). The Consumer online music decision- making process: Factors driving purchase intention of digital music service, Master of Science, The University of Guelph.

Rachel A. Burger (2014). The online shopping & purchasing behaviour of millennial who rely on online reviews: A qualitative study, PhD Thesis, Capella University.

Richard Blundell (1988), Consumer behaviour: Theory and Empirical evidence – A survey, The economic Journal, Volume .98, (389). PP: 16-65.

Rosen Kenneth &L Howard Amanda (2000), E-Retail: Gold Rush or Fool's Gold? California

Management Review, Volume 42(3), PP: 72–100.

R P Bagozzi., M Gopinath., and P U Nyer, (1999). The role of emotions in marketing, Journal of Academy of Marketing Science, Volume 27(2), PP: 184-206.

Riemenschneider C K., Harrison D A & Mykyth P P (2003). Understanding IT adoption decision in small business: Integrating current theories, Information & Management, Volume 40(4), PP: 180-269.

Ravi Sen (2003). Buyer's choice of online search strategy and its implications for e- markets, PhD thesis, University of Illinois at Urbana- Champaign 2003, Urbana Illinois.

Raja Sarkar., Dr. Sabyasachi Das (2019).A Conceptual Model to Measure the Impact of Consumer Behaviour on E- retailing in India , International journal of scientific research in science and technology, Volume 6 (Issue 3) , https://doi.org/10.32628/IJSRST196329.

R Moore., J Shaw & K Chipp (2005). Eight years on: An extended model of online consumer behaviour, South African Journal of Business Management, Volume 36(2), PP: 95-103.

S Huang & F Lin (2007). The design and evaluation of an intelligent sales agent for online persuasion and negotiation, Electronic Commerce Research & Applications, Volume 6(3), PP: 285-296.

S M Hung & C M Chang (2005). User acceptance of WAP services: Test of competing theories, Computer Standards & Interfaces, Volume 27, PP: 359 –370.

Saeed K., Hwang Y., and Yi M Y (2003). Toward an integrative framework for online consumer behavior research: A meta-analysis approach, Journal of End Use Computing, Volume 15(4),

Szajna B (1996), Empirical evaluation of the revised technology acceptance model, Management Science, Volume 42(1), PP: 85-92.

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

S Knox & T Denixon (2000). Store loyalty: Its impact on retail revenue: An empirical study of purchasing behaviour in the UK. Journal of Retail Consumer Service, Volume 7, PP: 33-45.

Sanjukta Arun Pookulangara (2008). Explaining consumer's channel- switching behaviour using the Theory of planned behaviour, PhD Thesis, Faculty of Graduate School, University of Missouri.

S Chen & F Leteney (2000), Get real: Managing the next stage of Internet retail. European Management Journal, Volume 18(5), PP: 519-528.

S Doyle (2007). The role of social networks in marketing, Journal of Data base Marketing & Customer Strategy Management, Volume 15(1), PP: 60-64.

Shrey Nougarahiya, Gaurav Shetty, and Dheeraj Mandloi (2021). A review of E- commerce in India: The past, present, and the future, research review, International Journal of Multidisciplinary, Volume 6 (3), PP: 12-22. Https://doi.org/10.31305/rrijm.2021.v06.i03.003

S.A. Drakopoulos (1992). Keynes Economic thought and the Theory of Consumer Behaviour, Scottish Journal of Political Economic Society, Volume 19(3).

Shekar Singh., Sandeep Srivastava (2017). The effect of shopping platform and product type on antecedents of online consumer behaviour- A proposed framework, Journal of Internet Banking and Commerce, Volume 22(58).

Sukekyu Lee (May2000). An investigation of repeat visit behaviour on the internet – Models and application, PhD thesis, Faculty of Graduate School, University of South California.

Sharon Beatty., M. Elizabeth Ferrell (1998). Impulse Buying: modelling its precursors, Journal of Retailing, Volume 74(2), PP: 169-191.

Srikant Beldona (2003). Studies in online consumer Behaviour: Planning, Search and Purchase, PhD Thesis, Purdue University.

S A Eroglo., K A Machleit & L M Davis (2001). Atmospheric qualities of online retailing: A conceptual model and implications. Journal of Business Research, Volume 54, PP: 177-184.

Swaminathan V (2003). The impact of recommendation agents on consumer evaluation choice: The moderating role of category risk, product complexity, and consumer knowledge, Journal of Consumer Psychology, Volume 13(1/2), PP: 93–101.

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

Suki Norbayah M & Suki Norazah M (2007). Online buying innovativeness: effects of perceived value, perceived risk and perceived enjoyment, International Journal of Business and Society, Volume 8 (2), PP: 81-93.

Sylke V c., Belanger F., & Comunale C L (2004). Factors influencing the adoption of web-based shopping: the impact of trust, ACMSIGMIS database3, Volume 5(2), PP: 32-49.

T Erdem., G Mayhew & B Sun (2001). Understanding reference-price shoppers: A within-and cross-category analysis, Journal of Marketing Research, Volume 38, PP: 445-457.

Thompson S.H. Teo & Yon Ding Yeong (2003). Assessing the consumer decision process in the digital marketplace, The international journal of management science, Omega, PP: 349-363

Torben Hansen (2000). Consumer decision making: A research Note, Department of Marketing, Copenhagen Business School, Denmark.

Tonnette M. Bennett (2019). Consumer purchase motivation in digital environments: The effect of intrinsic motivation on banner advertisement effectiveness, PhD Thesis, Jacksonville University.

Teo & Thompson S.H(2002), Attitude toward online shopping and the Internet, behaviour and Information Technology, Volume 21 (4), PP: 259-271.

Teo S H., Wang P., & Leong C H (2004), Understanding online shopping behavioural using a transaction cost economics approach, International Journal of Internet Marketing and Advertising, Volume 1(1), PP: 62-84.

Torkzadeh G & Dhillon G (2002), Measuring factors that influence the success of internet commerce, Information Systems Research, Volume 13(2), PP: 187–205.

Trevino L K & Webster J (1992). Flow in computer-mediated communication: electronic mail and voice mail evaluation and impacts, Communication Research, Volume 19(5)

Vikas Kumar & Ogunmola Gabriel Ayodeji (2020). E- Retail factors for customer activation and retention: An empirical study from Indian e- commerce customers, Journal of Retailing and Consumer Services: https://doi.org/10.1016/j.jretconser.2020.102399.

Vinod Sharma., Jeanne poulose. Sanjib Bhattacharjee. Akilesh Tiwari (2020). Antecedent of online buying behaviour: Consumer attitude towards online shopping in India, Indian Journal of Ecology Special issue (9), PP: 122-125.

Vivian Leong Wai San., Dr. Rashid Yazdanifard (2014). How the perceptions towards e- Retailer image affect the e-consumer behaviour: Factors and Procedure Involved, Journal of research in Marketing, Volume 2(2).

Venkatesh V & Davis F D (2000). An extension of theory to the TAM model: Four longitudinal field studies, Management Science, Volume 46(2), PP: 186-204.

Venkatesh V & Brown SA (2001). A longitudinal investigation of personal computer in homes: Adoption determinants and emerging challenges, MIS Quarterly,

Vijayasarathy L R (2002). Product characteristics and Internet shopping intentions, Internet Research Electronic Networking Applications and Policy, Volume 12(5), PP: 411-426.

V W Mitchell (1992). Understanding consumer's behaviour: Can perceived risk theory help, Management Decision, Volume 30(2), PP: 26–31.

Weng marc Lim (2014). Antecedents and consequences of e-shopping: An Integrated model, Internet research, Volume 25 (2), PP: 184-217

Wang, Shu-Chuan (July2001). Individual/ Organisational Characteristics and Intention to Adopt E-Commerce: A study based on Innovation Adoption Theory. PhD Thesis, The Chinese University of Hong Kong.

Wendy W. Moe (2000). Which Visits Lead to Purchases? Decomposing the buying process into visiting & conversion behaviour, PhD Thesis, Graduate Group in Managerial Science and Applied Economics, University of Pennsylvania

Wright M (2002). Questioning the value of the true brand loyalty - distinction. International Journal of Research in Marketing, Volume 19(1), PP: 81-90.

Yu Tai-Kuei &Wu Guey-Sen (2007). Determinants of Internet Shopping Behaviour: An Application of Reasoned Behaviour Theory. International Journal of Management, Volume 24(4), PP: 744-762.

YounghwaLee (2005). Developing Theoretical models of website usability: Instrument development and validation, PhD Thesis, University of Colorado, Leeds School of Business

Yusniza kamarulzaman (2011). E-Consumer behaviour: Exploring the drivers of E-Shopping, European Journal of Social Sciences, Volume. 23(4).

Y. Aslihannasir (2004). E-Commerce Complaints about On-line Stores, Journal of Consumer Satisfaction, Dissatisfaction and Complaining behaviour, Volume 17, ABI/INFORM Global

Yuanping Ying (2006). Essays on modelling consumer behaviour in online shopping environment, PhD Thesis, the University of Michigan

Yoon Jin Ma (2007). Young consumers fair trade consumption: Application of the theory of planned behaviour to non- food fair trade purchases, PhD Thesis, Iowa State University, Ames, Iowa

Young A Park (2007). Investigating online decision-making styles, PhD Thesis, Graduate Studies of Texas A & M University

Youngwon Lee (2006). The Determinants of Consumers Information Search Patterns in Online Marketing Communication, PhD Thesis, College of Communication, The Florida State University

Xiao (Sean) Ma (2014). Consumer decision sciences in modern online platforms, PhD Thesis, University of Wisconsin, Madison

Zaid Ahmad Ansari (2019). Measuring online consumer behaviour: Scale development & validation, Journal of business and retail management & Research, Volume 13(3).