Online Consumer Behaviour Models:
A Literature Review

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Abstract

The dynamics of consumer behaviour is ever evolving with continuous technological up gradations. Consumersarein transition stateof being an 'e-consumer' with successful diffusion of novel concept of 'online shopping' in the past 3-4 years. A new captivating topic for marketers and researchers has come into existence to understand 'online consumerbehaviour'. In order to understand online consumerbehaviour, various models and frameworks have beenderived by academicians & researchers. These models are composed of different factors which are variable in nature. Since e-commerce and online consumer behaviourareconstantly developing phenomenonwith technological advancements, the variables are keep on modifying so as the models. The key objective of this exhaustive review is to analyse evolution of online consumer behaviour models associated to the change in variables. This review also facilitates future researchers in understanding and selecting most advanced models based on their relevance of variables in terms factors affecting online consumer buying behaviour. For this study, we reviewed textbooks and research papers published.

Key words: Online shopping, online consumer behaviour model, technology, e-commerce.

Introduction

Online shopping is a method of e-commerce where consumers directly buy goods or services from a seller over the Internet using a web browser. Amazon, Flipkart, Snapdealare among the top online retailers in India. However, online shopping has evolved over a period of 35 years, but in India the rate of acceptance has accelerated in last decade. The journey of online shopping showcases, an interesting insight, how the emergence of technology constantly shaping the future of online shopping.

Online Shopping: Historical background

1979: Michael Aldrich invented online shopping by connecting a modified domestic TV to a real-time transaction processing computer via a domestic telephone line.

1982: Minitel was introduced in France and was used for online ordering.

1990: Tim-Berners- Lee created the firstWorld Wide Web server and browser.

Thereafter, subsequent technological innovations emerged in

1994: online banking, the opening of an online pizza shop byPizza HutNetscape's SSL v2 encryption standard for secure data transfer, andInter Shop's first online shopping system.

1994: The first secure retail transaction over the Web was either byNetMarket and Internet

Shopping Network.
1994:Amazon.com launched its online shopping site in 1994.
1995: eBay was introduced.
1998: PayPal comes into existence.
2002: eBay acquires PayPal for $1.5 billion and changes the scope of online shopping forever.
2003: Alibaba's sitesTaobao (In China)
2003- After eight years, Amazon posts its first yearly profit.
2007: Flipkart was founded by Sachin Bansal and Binny Bansal, both are alumni of the Indian Institute of Technology, Delhi.
2010: Snapdeal is an online marketplace, New Delhi, India
2011: ShopClues is an online marketplace, headquartered in Gurgaon, India.
2013: Amazon launched their Amazon India marketplace in India.
And many other solution based ventures such online ticket booking (Rail/air/bus and movie), online banking, taxi and bike/scooter services and many others have also been evolved.
(Source: https://www.tributemedia.com/blog/evolution-ecommerce)

Online consumer behaviour: Theoretical background
Consumer behaviour is "how consumers think and behave when making purchase decisions."
Itis defined as 'the study of understanding how the consumer makes decision about spending his/her limited resources, such as time, effort and money for purchasing. This definitionis also applicable in online consumer behaviour except the use of technology in purchase decision. A consumer decision largely influenced by his/her personal, social, psychological and cultural factors as shown in Exhibit no.1
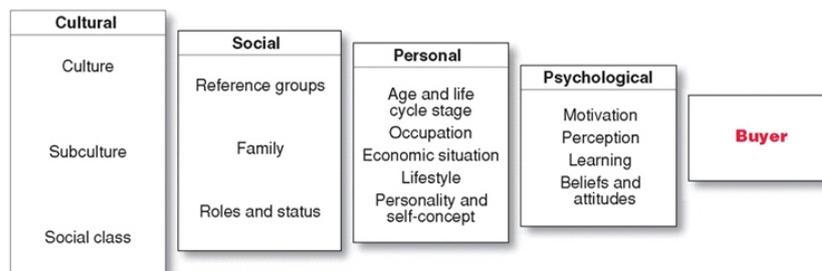

Exhibit no.1Factors affecting consumer decision making

The Digital India programme's vision is becoming a reality, where today's consumers have the power of taking purchase decisions in their hands. With increased used of smartphones, more and more companies are choosing to start apps for their products/services making decision making process more quick and easy. Based on this major aspects of online consumer behaviour can be summarized as:
- Factors affecting consumer behaviour where shopping online/offline
- Technological factors of shopping online

Above mentioned factors are under continuous change, theprescriptive of cognitive consumer behaviour model further supports these two aspects as depicted in exhibit no. 2.
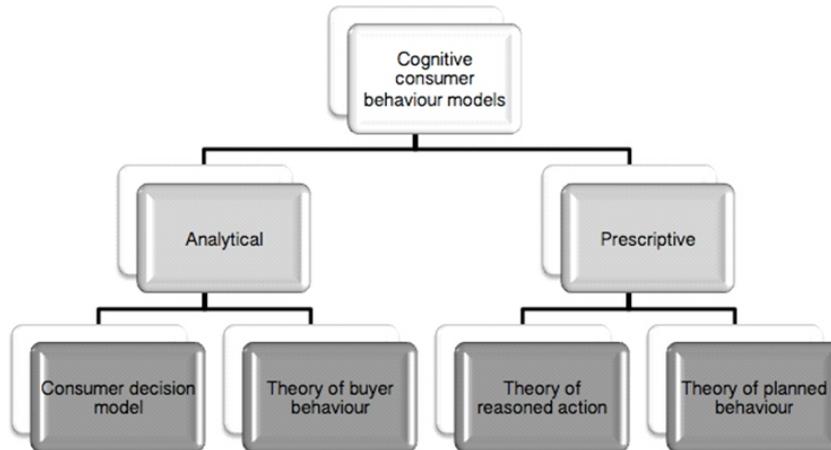
Theory of reasoned action (TRA)

IcekAjzen and Martin Fishbein formulated in 1980 the theory of reasoned action (TRA). This resulted from attitude research from the Expectancy Value Models. Ajzen and Fishbein formulated the TRA after trying to estimate the discrepancy between attitude and behaviour. This TRA was related to voluntary behaviour. Later on behaviour appeared not to be 100% voluntary and under control, this resulted in the addition of perceived behavioural control. With this addition the theory was called the theory of planned behaviour (TpB). The theory of planned behaviour is a theory which predicts deliberate behaviour, because behaviour can be deliberative and planned.
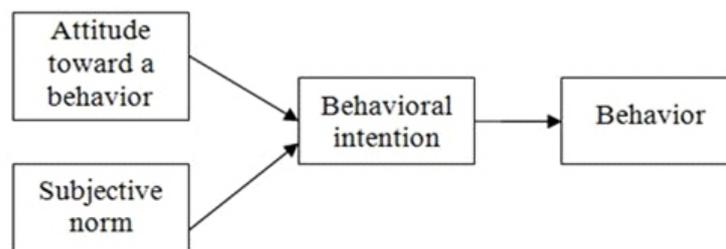

Exhibit no. 3 Theory of reasoned action (TRA)

TAM is based on the theory of reasoned action, Davis (1986). This model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness (PU) and perceived ease of use (PEOU).

Perceived usefulness is defined as being the degree to which a person believes that the use of a system will improve his performance. Perceived ease of use refers to the degree to which a person believes that the use of a system will be effortless.
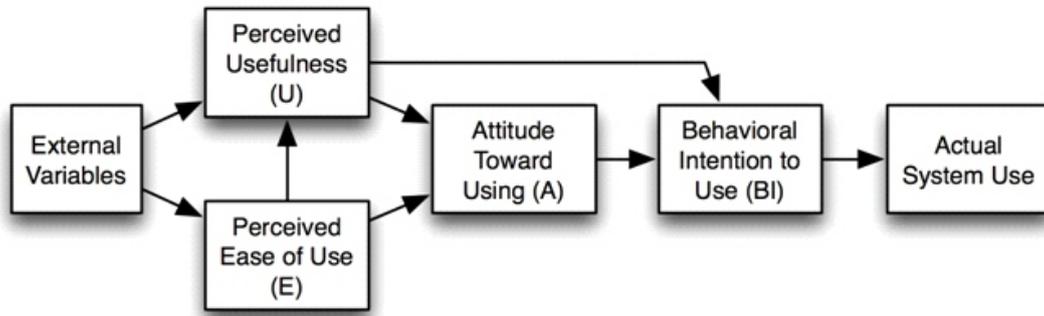
Exhibit no. 4 Technology Acceptance Model (TAM)

While conducting this study, finding an integrated, relevant and widely accepted online consumer behaviour model was a challenge. It was found that the base of most of the models were classical theories based of Theory of reasoned action (TRA) and Technology Acceptance Model (TAM).

Research Methodology

A selective review of literatures was undertaken to observe the key factors of online consumer behaviour over the period of time. For this study, we reviewed the research papers published from 2002 to 2015, where the change in factors can be easily comprehended.

Review of Literature

Fundamental concepts of online consumer behaviour

Constantine E., (2002), "The 4S Web-Marketing Mix model", Electronic Commerce Research and Applications 1 (2002) 57–76

The author's contribution in the field of e-commerce presented the basic concept of marketing-mix which was essential to carry on the activities of web marketing. This new approach of the web-marketing Mix had identified four S elements namely scope, site, synergy and system as shown in exhibit no.
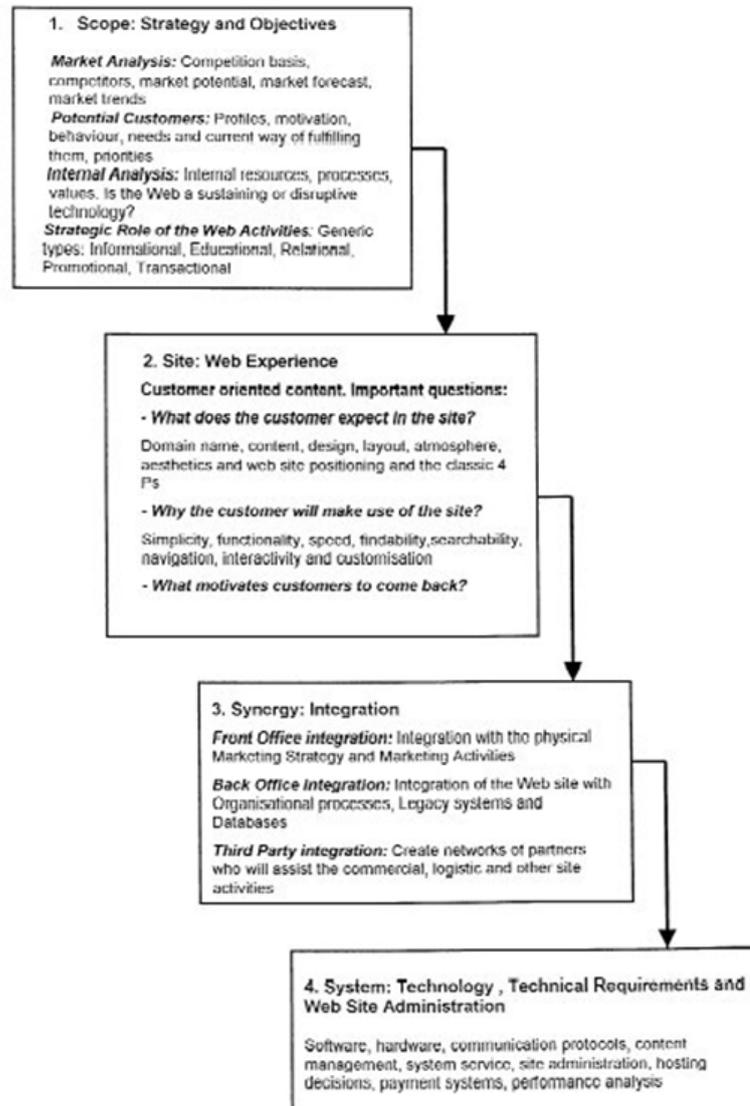
1. Scope: Strategy and Objectives

Market Analysis: Competition basis, competitors, market potential, market forecast, market trends
Potential Customers: Profiles, motivation, behaviour, needs and current way of fulfilling them, priorities
Internal Analysis: Internal resources, processes, values. Is the Web a sustaining or disruptive technology?
Strategic Role of the Web Activities: Generic types: Informational, Educational, Relational, Promotional, Transactional

2. Site: Web Experience

Customer oriented content. Important questions:

- What does the customer expect in the site?

Domain name, content, design, layout, atmosphere, aesthetics and web site positioning and the classic 4 Ps

- Why the customer will make use of the site?

Simplicity, functionality, speed, findability, searchability, navigation, interactivity and customisation

- What motivates customers to come back?

3. Synergy: Integration

Front Office integration: Integration with the physical Marketing Strategy and Marketing Activities

Back Office integration: Integration of the Web site with Organisational processes, Legacy systems and Databases

Third Party integration: Create networks of partners who will assist the commercial, logistic and other site activities

4. System: Technology , Technical Requirements and Web Site Administration

Software, hardware, communication protocols, content management, system service, site administration, hosting decisions, payment systems, performance analysis

Exhibit no. 5The 4S framework of web-marketing

Chang Su-Jane., (2003),"A descriptive model of online shopping process: some empirical results", International Journal of Service Industry Management, Vol. 14 Iss 5 pp. 556 - 569
This study addressed the fundamentals of online shopping where the focus was on understanding online shopping process. When it comes to online shopping the common issues such as how do online shoppers describe their online shopping process?Is there a common model of online shopping process?What are the fundamental dimensions of one's online shopping process? How do the underlying dimensions influence online shoppers' satisfaction with their online

purchases? Still the answers of these issues remained undercover. The finding of this study based on in-depth interviews and a follow-up survey identified three common online shopping components: interactivity, transaction, and fulfillment.

Role of Trust& attitude towards online buying intention

Srinivasan S., (2004),"Role of trust in e-business success", Information Management & Computer Security, Vol. 12 Iss 1 pp. 66 - 72

The author of this study examined the importance of trust from the transaction perspective in e-commerce. The factors that contribute for transaction trust were identified such as easy access to description of products and services, ease of placing orders, order confirmation, order tracking and post-sales service. The essence of this study was development of 'Trust Model' based on key components that were trusted seals, security and financial institutions.

Kim J. & et al, (2005),"A consumer shopping channel extension model: attitude shift toward the online store", Journal of Fashion Marketing and Management: An International Journal, Vol. 9 Iss 1 pp. 106 – 121

This study is to examine the consumer shopping shift from offline to online store with a theoretical approach. The results showed that attitude played an important role in online purchase intention.

Mukherjee A. &et al, (2007),"Role of electronic trust in online retailing", European Journal of Marketing, Vol. 41 Iss 9/10 pp. 1173 – 1202

This study reinforced the role trust and commitment in online world. The emphasis was on how websites can be able to gain the trust of the buyers and deliver on the promises to lead to long term customer relationships. This paper also reconsidered the commitment-trust theory (CTT) of associated with online retailing context.

Privacy and security features of the website facilitate inbuilding trust which eventually leads to building bond.

Karjaluoto J., (2007),"A conceptual model of trust in the online environment", Online Information Review, Vol. 31 Iss 5 pp. 604 – 621

This study investigated factors that impact of trust in e-commerce and presented an integrative trust model. As shown in the exhibit no. 6 the model classifiedvarious externalfactors and internal factors. Trust was the key driver for repeat purchase which ultimately leaded to long term commitment.
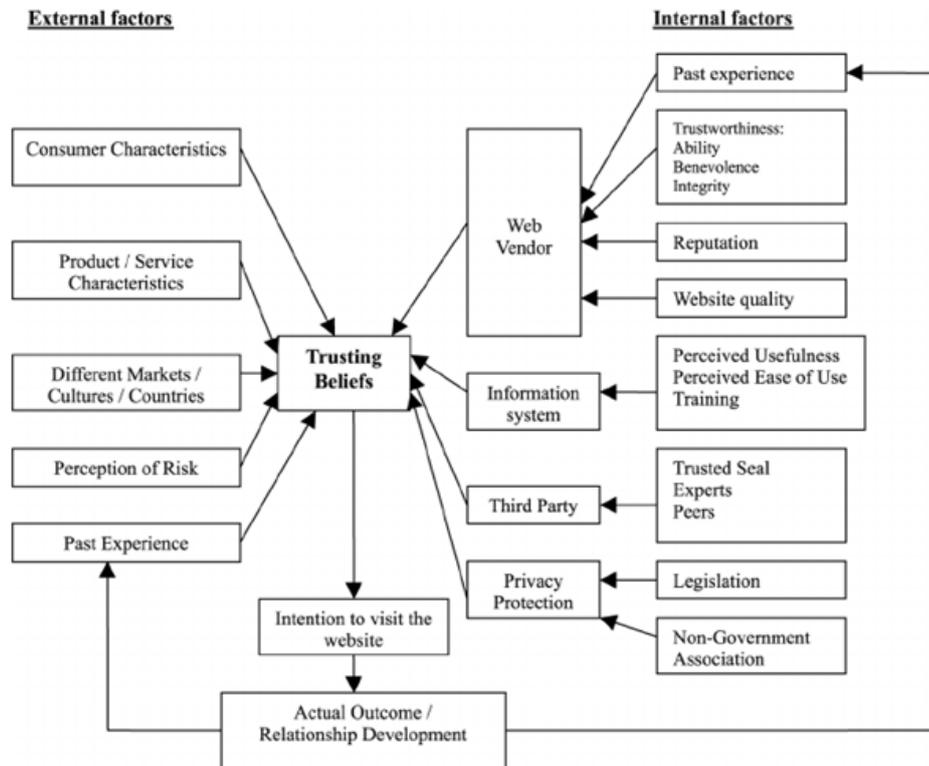
Exhibit no. 6 An Integrative Trust Model

Analysis of theories and models

Lim W., et al (2012), "E-shopping: an Analysis of the Technology Acceptance Model", Modern Applied Science, Vol. 6, No. 4; April 2012.

This empirical study was an attempt to find out the acceptance of online shopping and surveyed the relationship between various determinants of TAM. All four hypotheses formed on determinants of TAM were found a positive effect on consumers' intention to shop. The outcome of the study indicating consumers were accepting technology as the PEOU and PU been proved to be meaningful in today's times

Sharma R. & Mishra R., (2014), "A Review of Evolution of Theories and Models of Technology Adoption", IMJ, Volume 6 Issue 2

This study is an exhaustive collection of various theories and models of technology adoption summarized in systemic and chronological order as mentioned below:

Year	Theory/Model	Developed By	Constructs/ Determinants of adoption
1960	Diffusion of innovation theory	Everett Roger	The innovation of communication channels, time Innovation
1975	Theory of Reasoned Action	Ajzen and Fishbein	Behavioural intention, Attitude (A), and Subjective Norm
1985	Theory of Planned Behaviour	Ajzen	Behavioural intention, Attitude (A), and Subjective Norm, Perceived Behavioural Control
1986	Social Cognitive Theory	Bandura	Affect, anxiety
1991	The Model of PC Utilization	Thompson et al	Job-fit, Complexity, Long-term consequences, Affect Towards Use, Social Factors, Facilitating Conditions
2000	The Motivation Model	Davis et al	Extrinsic motivation (such as perceived usefulness, perceived ease of use, and subjective norm) and intrinsic motivation (such as perceptions of pleasure and satisfaction)
2002	Extended TAM2 model	Venkatesh and Davis	Social influence processes (subjective norm, voluntariness and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use)
2003	Unified Theory of Acceptance and Use of Technology (UTAUT)	Venkatesh et al	Performance expectancy, effort expectancy, social influence and facilitating conditions
2009	Model of Acceptance with Peer Support (MAPS)	Sykes et al	Behavioural intention, System use, Facilitating conditions, Network density, Network centrality, Valued network centrality, Valued network density

The digitisation of everything:
A research conduct by Ernst and Young (2016), on "The digitisation of everything How organisations must adapt to changing consumer behaviour" was a comprehensive study how the evolution been unfolding. Digitalisation of business is the key to survival in today's times. Companies do not have choice to be a part of a continuous improvement strategy. It took 10 years

for the internet to become a basic part of our daily life but in futurewill happen at much faster pace. The majority of world's populationGeneration Y (the generation born in the 1980s and 1990s) who makes potential consumers and companies must address their evolving expectations. A new term has come taken birth 'Prosumer'means consumer who is unusually interested in products/ services of a brand and spare time to upload reviews about the product.

There is a need to develop end-to-end digital strategies and comprehensive digital operating models that address suppliers and employees just as much as customers. They must decide whether they can transform their existing models, or invent a new model.

Conclusion

Online shopping has come out of the apprehension period to a new era of world where everybody wants to part of online world. Primarily the focus was on building'trust' on online shopping web site as there was replacement of salesman of physical place to a new virtual world. Trust leads to change in 'attitude' which influenced purchase intention online. Both these variables have changes over a period of time from 2002 to 2015. The most apparent factors of online consumer behaviour were/are saving on time, money, efforts remain constant motivators. It has been observed there a strong need of a simple integrated model of online consumer behaviour rather than complicated models available. Today's consumer is technology savvy and technology up gradations are self-learned.

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[4]   Chang Su-Jane., (2003),"A descriptive model of online shopping process: some empirical results", International Journal of Service Industry Management, Vol. 14 Iss 5 pp. 556 – 569
[5]   Srinivasan S., (2004),"Role of trust in e-business success", Information Management & Computer Security, Vol. 12 Iss 1 pp. 66 – 72
[6]   Mukherjee A. & et al, (2007), "Role of electronic trust in online retailing", European Journal of Marketing, Vol. 41 Iss 9 /10 pp. 1173 – 1202
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