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Attitude segmentation of Indian online buyers

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Abstract

Purpose – The purpose of this research paper is to apply the ABC model and examine the attitudinal segmentation of online consumer in India in terms of internet usage, perceived risks, website attributes, intent to do online purchase in future and preference of website attributes.

Design/methodology/approach – A structured questionnaire was administered to 600 online consumers using field and online survey mediums. The logit analysis was applied to arrive at segmentation of online users.

Findings – Findings show how attitudes are different of online users when they were segmented based on internet usage. This segmentation showed attitudes that were paradoxical in nature. To explain this paradoxical behaviour of online buyers, this study applied the logit analysis. The online users were further examined applying the ABC model of attitude. Three distinct segments of online users emerged. They are: CAB, CBA and BCA.

Practical implications – The findings of this paper will be useful for online retailers who want to start e-commerce business in India. The findings are also useful for designing appropriate promotion and marketing strategies to entice online users to become online buyers.

Originality/value – The key contributions of this paper are the new insights from using the ABC model. Based on usage of internet in number of hours, online buyers could be segmented into four groups. On further analysis using ABC model, this studied showed that a better segmentation of online buyers is possible and that is called attitudinal segmentation. The BCA attitudinal segment is a finding of this study and is unique to this research. This has not been done using Indian online buyers and this adds to the originality of the study.

Keywords ABC model, Attitude segmentation, Hierarchy of effects, Indian online user, Logit analysis

Paper type Research paper

Introduction

The internet has reached small metros and towns of India. Youth of India continues to form the major segment of the total online users (Internet and Mobile Association of India Publication, 2014). While the point of access is predominantly cyber café in India, the emergence of smart phones and 4G has resulted in use of mobile phones, I-pads and kiosks as emerging points of internet access for online users in India. Despite high growth in internet penetration, Indian consumers have not trusted online medium as a shopping preference.

The world has over 2,400 million internet users with the internet penetration of 34 per cent while India has 137 million internet users with just about 11 per cent penetration level (Internet and Mobile Association of India Report, IAMAI 2014 report). Despite low penetration level the e-retail market in India was worth INR2,000 CR in 2011 and is estimated to be worth INR10,000 CR by 2015 (Research and Markets, 2012). Despite the large current base of users, the internet currently contributes a modest 1.6 per cent to India's GDP. This could grow to 2.8-3.3 per cent by 2015 if India achieves its potential for growth in the number of internet users and internet technology-related consumption (ASSOCHAM, 2014).

Despite high awareness of internet and high e-usage in India, the translation of e-users to into e-customers is very low. This study was done to understand why online

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users are not active online buyers. This study attempted to investigate the reasons by studying the online consumer behaviour of active Indian online users using the ABC model to understand attitude formation.

This research paper analyses data using factor analysis, cluster analysis and regression analysis to create segments of Indian online users. It describes a new theoretical framework based on application of a multinomial logit analysis and the hierarchical of effects attitude formation theory model, also known as ABC model. The key contributions of this paper are the new insights from using the ABC model. Based on usage of internet in number of hours, online buyers could be segmented into four groups. On further analysis using ABC model, this studied showed that a better segmentation of online buyers is possible and that is called attitudinal segmentation. The BCA attitudinal segment is a finding of this study and is unique to this research. This has not been done using Indian online buyers and this adds to the originality of the study.

The study of attitude formation is required because many online consumers are still not buyers. The behavioural change towards online shopping can be effected, or at least influenced, if strategists know how new attitudes can be formed in consumers (Blackwell *et al.*, 2006; Knezevic *et al.*, 2014). In this study an attempt has been made to explain the attitudes of different online consumer segments. The ABC (affect, behaviour, cognition) model (hierarchy of effects) of attitude formation has been used to identify appropriate segmentations of online users in India. This study attempts to segment Indian online consumers based on their attitudes towards e-usage. In other words, there will be e-attitudinal segmentation using consumer behavioural variables. This will enrich our understanding of the hierarchy of effects (Egnel, Kollat and Blackwell – EKB – consumer behaviour model) and contribute significantly on to knowledge.

Considerable literature on this phenomenon is available for various world markets, but for the Indian market, there are only conceptual papers throwing light over prospects for online shopping. Also are view of literature shows that no previous research has specifically examined consumer browsing processes and experiences across different demographic segments. This research focuses on consumer online experiences and examines factors influencing online behaviour patterns and activities across different demographic segments, with their corresponding attitudinal dispositions.

The study is unique because it aims on why the online user are not online buyers in India. Also, the study is original because that it has shown how to use the ABC model to segment the online users into meaningful groups. This research has showed than an attitudinal segment can be found in Indian online users.

Literature review

This study investigates what will make Indian online users, buy through internet medium. Hence past studies on attitude and its formation were reviewed.

The concept of attitude has been used in many consumer studies as a key element in most consumer models. One of the most popular definitions of attitude is that of Fishbein and Ajzen (1975, p. 6) and it says: "a learned predisposition to respond in a consistently favourable or unfavorable manner with respect to a given object". In this definition there is a clear emphasis on the affective dimension of attitude. It indicates that attitude influences behaviour. Other definitions of attitude that emphasize the affective dimension can be found, for example, in Ajzen and Fishbein (1980) or Casillas *et al.* (2004). All these, however, are general definitions. For this study, a more specific

approach is required to define attitude towards the internet. Lopez *et al.* (2005) suggested two definitions for attitude towards the internet. First, they defined it as a predisposition to respond in a consistently favourable or unfavourable manner to the internet. In their second, they saw it is the overall opinion or evaluation that the consumer has of the internet. Since this study attempts to understand online consumer behaviour, attitude is an important variable to study, because as the definitions indicate, attitude determines behaviour.

There are many past studies that have established that the consumer's attitude towards the internet should be considered as an antecedent of his attitude towards his intention to use the internet for various e-usages (Cheah *et al.*, 2015; Dash, 2014; Knezevic *et al.*, 2014; Bruner and Kumar, 2000; Chen and Wells, 2000; Stevenson *et al.*, 2000).

In 2003, Wu studied the relationship of attitude towards online shopping with various consumer behaviour factors. The primary data for this research were collected using a survey of 600 internet users in Taiwan. The Fishbein model was used for measuring attitude. The study clearly demonstrated that attitudes towards online shopping significantly varied with socio-demographics, purchase preference, benefit perception, lifestyle and online shopping rates. This study showed that consumers who shopped online had higher attitude scores. Wu (2003) captured online user concerns and perceptions of online shopping. Wu concluded that males who were aged between 36 and 40, who had had at least a high junior school education, who liked to watch TV, who earneda monthly income of $1,151-$1,700 (around INR55,000-85,000), who were students or soldiers and resided in villages – had high positive attitudes towards the internet. Unfortunately, the convenience sampling technique used in this study, affected as it is by other social-cultural issues, weakens any attempt at generalizing its findings.

Casillas *et al.* (2004) did an in-depth statistical analysis of consumer behaviour based on the affect-behaviour-cognition (ABC) attitude model of consumer. A questionnaire was completed by 560 college students in Spain. The researchers empirically tested the theoretical ABC model using structural equation modelling and fuzzy association systems. The study examined the influences of four "belief" factors – perceptions of online users about information given on web pages, perceptions of consumers oninvasion of privacy when navigating, perceptions about interaction speed, time of response and beliefs in the state of updation of internet contents. The study found that the first two "belief" factors influenced a favourable attitude towards internet more than the last two. It further concluded that if online users had a favourable attitude towards the internet, then they developed favourable attitude (trust) to online shopping as well.

In their literature review of about 55 research papers from 1989 through 2002, Monsuwé *et al.* (2004) proposed a framework to understand consumer attitudes towards online shopping and intentions to shop on the internet. The framework used the constructs of the technology acceptance model (TAM) as a basis, extended it by exogenous factors and applied it to the online shopping context. The review showed that attitudes towards online shopping and intention to shop online were not only affected by the ease of use of internet, the usefulness of the internet, and enjoyment, but also by exogenous factors like consumer traits, situational factors, product characteristics, previous online shopping experiences and trust in online shopping.

Fusilier and Durlabhji (2005) explored the TAM and the theory of planned behaviour (TPB) in relation to internet use intentions and self-reported usage among 245 college students (engineering, rural management, and arts and sciences) in India. Data for each (TAM and TPB) model were analysed using hierarchical multiple regression analysis for

the criterion of behavioural intention. According to the TAM theory, the study proved that both perceived usefulness and ease of use were statistically significant predictors of intention to use the internet. The research showed that a positive relationship between perceived usefulness and intention appears to be more pronounced for those with high levels of internet experience. Furthermore, a significant correlation was evident between intention to use internet and internet usage. Regression results concerning prediction of the internet usage measure suggested a significant positive relationship for perceived behavioural control but not for behavioural intentions. López *et al.* (2005) studied relationship between internet expertise and attitude towards the internet of internet users in the USA and Spain. These two countries were selected because of the differences in their extents of internet expertise. The Americans were found to have significantly more internet expertise (4.5 years) than the Spanish (2.6 years). The measures of internet attitude were consumers' perceptions on the following: web design, interaction speed (time of response), social benefits, invasion of privacy. They posed the conceptual model of attitude formation (based on hierarchy of effects, specifically standard learning hierarchy model), and tested it by means of LISREL. They also investigated the influence of consumer attitudes on their willingness to trust in internet shopping and on their practice of online shopping. The data came from a questionnaire administered in two different universities, one from each country (123 American students and 529 Spanish students). The study concluded that in both countries, there was a positive relationship between attitude towards the internet and the consumer's perceptions of web design, social benefits and invasion of privacy. Also in both countries, the consumer's willingness to trust in internet shopping and to practice online shopping were positively correlated with the consumer's attitude towards the internet. The study clearly established that internet-savvy consumers developed an attitude in accordance with standard learning hierarchy (CAB).

Chau and Ngai (2008) investigated the perceptions, attitudes and behaviour of the youth (16-29) market for internet banking services. A survey was carried out to acquire data from 84 respondents. The study confirmed that there is a negative association between perceived risk and perceived usefulness of internet banking. Consequently, the perceptions were seen to be significantly correlated with young customers' attitudes towards internet banking. Furthermore, the study demonstrated that both technical and functional quality satisfactions were significantly correlated with young customers' loyalty to the internet bank.

Dash (2014) studied Indian consumers and investigated what factors lead to perceived risk with online shopping. He studies 18 variables related to perceived risk and using factor analysis he generated six major factors: product risk, financial performance risk, psychological risk, time risk, delivery capability risk and website performance risk. Meanwhile, Cheah *et al.* (2015) studied factors that influence attitude formation about online shopping. They identified that perceived value and price consciousness are key factors that lead consumers to have positive attitude towards online shopping and have positive intention to shop online.

Research gap

Past studies about online consumer behaviour have been done based on demographics of online buyers and their perceptions and internet usage patterns. There also have consumer segmentation studies in past, and those also were largely done based on demographics. There has been no study to understand what transforms online users to become online buyers. Literature review establishes that attitudes are important

determinants of behaviour. So, a study is required to understand how attitude influences transformation of online users to online buyers.

The aim of this study was to find what made online users become online buyers. To understand online consumer behaviour, the first objective was to identify differentiating attitudes based on differences in e-usage. The literature shows that variable "attitudes" are necessary to understand consumer behaviour, because attitudes determine users' online behaviour.

There have been very few studies on online behaviour which based on ABC model, also known as the hierarchy-of-effects model. That ABC model can be used for consumer segmentation is the conceptual contribution of this paper.

ABC model or hierarchy-of-effects model of attitude formation. This study used hierarchy-of-effects model of attitude formation, also called ABC model, to segment Indian online users based on their internet usage. To set the basic structure of the conceptual model for this thesis, the classical attitudes model structure compounded by beliefs or cognitions (C), affect (A) and behaviour (B) – i.e. the ABC model of attitudes – has been used. Cognitions (C), affect (A) and behaviour (B) is usually seen as components of attitude which act as determinants of its formation (Schiffman and Kanuk, 1997). There are three main types of existing hierarchies or sequences for attitude formation – i.e. the standard learning hierarchy (CAB), the low-involvement hierarchy (CBA) and, finally, the experiential hierarchy (ABC) (Solomon, 1997).

This study attempts to apply the ABC model, where A stands for "affect" or feelings of consumer towards online buying, B stands for online buying behaviour and C stands for cognition or knowledge about online buying. There has been no other study where "internet usage" was taken as "behaviour" or B, "perceived risks" and "website attributes" as "cognition or C", some measurable factors of "attitude" as "affect or A" and some measurable factors of "attitude" as "cognition or C".

Methodology

Objectives of the study

The purpose of the study was:

(1) to segment online buyers as per their e-usage and understand attitude of these segments;

(2) to adapt the hierarchy-of-effects model (ABC model) in order to explain the attitudes of above online segments.

Instrument

In order to do an attitudinal segmentation of Indian online users, the hierarchy of needs model was used. This model has three factors that lead to formation of attitude. Cognitions (C), affect (A) and behaviour (B) are usually seen as components of attitude which act as determinants of its formation (Schiffman and Kanuk, 1997). In order to measure these three factors, Likert scale (five-point agreement scales) statements were used. Table I shows the statements and other measures that were used.

Apart from the above variables, the following factors were also measured to determine the "behaviour" on formation of attitude:

- access to internet;
- daily internet usage;

Affect	Behaviour	Cognition
I enjoy buying things on the internet	No Likert scale statements	I would like not having to leave home when shopping
I do not want to give my credit card number to a computer		I would shop on the internet if prices were lower
I just do not trust online retailers		I think the internet offers better quality than local shops
Buying things on the internet scares me		I think the internet would avoid hassle of local shopping
I intend to purchase online in in next three months		I think online buying is a new and fund way to shop
I intend to purchase online in in next one year		None of my friends shops on the internet
		I like the help offered at local shops
		I want to see things personally before I buy
		I prefer the following website attributes

Table I.
Likert scale statements to measure affect – behaviour – cognition (ABC model)

- purposes of internet usage;
- prior online buying experience;
- product category or types of products;
- intention to purchase online in future;
- perceived risks; and
- website attributes preferred.

Based on extensive literature review, perceived risks of online consumers was in this study investigated based on following factors: credit card information; privacy of personal information; trustworthiness of online retailer; timely delivery of online purchases; delivered products must match those described on the website; products purchased online must be delivered undamaged; product returns must be easy for online purchases and contacting customer service must be easy for online purchases (Chang and Chen, 2008). Eight website attributes, which are relevant to online retailers to entice online users, were included and the respondents were asked to rank each attribute (1 being the highest rank and 8 being the lowest).

A structured questionnaire was used for the survey which had Cronbach's $\alpha > 0.75$. The study uses Likert-scale five-point agreement statements and applies the ABC model to explain the attitude of consumer segments.

Data collection

The respondents were selected using quota sampling technique. Based on IAMAI report (2014) first level of categorization was based on Indian states that showed considerable penetration of internet (Delhi, Mumbai, Chennai, Kolkatta, Gurgaon, Faridabad, Jaipur, Chandigarh, Hyderabad and Cochin). The second level of stratification was based on age groups. The quota decided was that one third of sample will be selected from each of these age groups: 18-21; 21-30 and 31 above. Out of 600 filled questionnaires, 484 were found usable for data analysis.

Data analysis method

For objective 1, all the respondents were divided into four segments based on e-usage, namely: less than two hours per day, two to four hours per day, five to seven hours per day and eight and more hours per day. A factor analysis was then done to refine this segmentation. In all there were 43 variables to predict the behaviour of online shoppers and non-shoppers.

In all there were 43 variables to predict the behaviour of online buyers and non-buyers. For objective 2, predictors of online buying needed to be extracted. Hence, the data obtained on 43 variables needed to be reduced to a smaller number of artificial variables (called principal components) that will account for most of the variance in these 43 variables. Hence, all the 43 variables in the study were put to principal component analysis (PCA). The principal components thus obtained, were used as predictor or criterion variables in subsequent logit analysis. Table II shows how the 43 variables were grouped after the PCA analysis.

All the above variables were analysed for relationships using multinomial logit analysis. Internet usage was taken in as a cell covariate in the analysis. Then various affect, behaviour and cognition variables (shown in Table III) were posited as independent variable and as dependent variables in various combinations. In this

Category	Concept in ABC model	Variables
Socio-demographics	–	Age, profession, gender
Online behaviour	Behaviour	Online buying experience
	Affect	Intention to purchase in future
Benefits of online shopping	Cognition	Att 2: I would like not having to leave home when shopping
		Att 4: I would shop on the internet if prices were lower
		Att 5: I think the internet offers better quality than local shops
		Att 11: I think the internet would avoid hassle of local shopping
		Att 16: I think online buying is a new and fund way to shop
Enjoy online shopping	Affect	Att 3: I enjoy buying things on the internet
Knowledge of traditional local (offline) shopping	Cognition	Att 8: None of my friends shops on the internet
		Att 9: I like the help offered at local shops
		Att 12: I want to see things personally before I buy
Mistrust on online shopping	Affect	Att 15: I do not want to give my credit card number to a computer
	Affect	Att 19: I just do not trust online retailers
Scared of online shopping	Affect	Att 14: Buying things on the internet scares me
Perceived risks	Cognition	Credit card information, privacy of personal information, trustworthiness of online retailer, timely delivery of online purchases, delivered products must match those described on the website, products purchased online must be delivered undamaged, product returns must be easy for online purchases, contacting customer service must be easy for online purchases

Table II.
ABC variables for multinomial logit analysis

Independent variable	Dependent variable	Measure of association (concentration)	Analysis of dispersion		
			Model	Residual	Total
Statements that show "Local shopping better than internet shopping" (8, 9, 12)	Statements that show "lack of trust in the internet" (15, 19)	0.34	31.5	60.8	92.4
Statements that show "lack of trust on internet" (15, 19)	Statement that "buying online scares me" (14)	0.32	29.2	62.6	91.8
Statements that show "lack of trust on internet" (15, 19)	Statement that shows "Intention to do online shopping in near future"	0.53	15.0	85.0	101.0
Statements that show "benefits of internet shopping" (att 2, 5, 4, 11, 16)	Statement that shows "Intention to do online shopping in near future"	0.36	35.0	65.0	100.0
Statements that show "benefits of internet shopping" (att 2, 5, 4, 11, 16)	Statement that "buying online scares me" (14)	0.37	33.0	57.0	90.0
Statements that show "benefits of internet shopping" (att 2, 5, 4, 11, 16)	Statement that "I enjoy online shopping"	0.37	23.0	65.0	88.0
Statements that show "benefits of internet shopping" (att 2, 5, 4, 11, 16)	Statement that shows "Online buying experience"	0.76	50.2	25.9	76.1
Statement that shows "Online buying experience"	Statement that shows "Intention to do online shopping in near future"	0.28	23.0	60.0	83.0
Perceived risks	Statement that shows "Online buying experience"	0.24	18.0	57.0	76.0

Table III.
Multinomial logit analysis to measure attitude formation

paper, those combinations were considered for ABC modelling that showed maximum "measure of association (concentration)". Only those logit regressions have been considered that showed significant goodness of fit. The details of the logit models – measures of association and analysis of dispersion – are given in Table III.

When the variables were interpreted using the ABC model of attitude formation, the following three types of segments of online buyers in were found: CAB, CBA and BCA.

Findings and analysis

Objective 1: to segment online buyers as per their e-usage and understand attitude of these segments.

Once data was divided into four segments based on e-usage, factor analysis was done to find out attitude of each segment. Attitude was understood in terms of affect (A), behaviour (B) and cognition (C). The summary of findings is in Table III.

Segment 1 (less than two hours per day): findings of factor analysis showed that this segment is not influenced by their socio-demographic variables and their intention to do online buying is the lowest among all four segments. This segment was well aware of the benefits of internet shopping (cognition) but they had low levels of trust in e-retailers (affect). This segment showed a high influence of friends on the formation of their attitudes towards online buying. Though this segment enjoys online shopping

and favour the benefits of online shopping, it is their high degree of perceived risks ($r = 0.60$) that hinders them from shopping online. This segment showed the need for fun in website attributes as the third loaded factor ($r = 0.40$). It is evident that a low exposure to internet (less than two hours per day) prevents them from accepting the internet as a shopping medium. This finding corresponds with the study by Casillas *et al.* (2004) and López *et al.* (2005) which had concluded that online users form favourable attitude towards online buying if they trust online medium more. Since this segment uses internet relatively less than other four segments, their fears of online buying is high. However since they seek fun, and this segment also shows that they are greatly influenced by friends, we can conclude that this segment can be enticed with fun elements and referral systems.

Segment 2 (two to four hours per day): the second segment was that of online users who used the internet for two to four hours daily. As per factor analysis, this segment was clearly influenced by age ($r = 0.5$), profession ($r = 0.6$) and online buying experience ($r = 0.5$) but not by gender. This segment:

- shopped online, yet;
- loved traditional, local (offline) shopping (att 8, 9, 12) (cognition) and;
- mis-trust on online shopping (att 15, 19) (affect); and
- scared of online shopping (att 14, credit card and privacy of information) (affect).

This segment showed confidence and shopping maturity, which can be attributed to their being employed and older in age. Also their heavy experience in local shopping added to their confidence in shopping from an online medium. This group did not need any hedonic pleasure out of online shopping. The polar nature of attitude of this segment necessitated deeper analysis on formation of attitude. This is discussed in findings sections of objective 2.

Segment 3 (five to seven hours per day): the third segment was that of users that used the internet for five to seven hours daily. This segment showed online shopping behaviour as the second segment. They were younger in age than the second segment. This segment showed no significant love for local shopping. It showed maximum concern for after-sales service. This means these consumers did online shopping and with experience, they learned to insist on good after-sales service where products could be returned or exchanged.

Segment 4 (more than eight hours per day): the fourth and last segment was that of online users that used the internet for eight or more hours daily. This was the only segment that showed the influences of gender and age. This is the only segment that showed a heavy loading on "I enjoy online shopping". This segment too had a high degree of perceived risks associated with online shopping and displayed heavy loadings on all website attributes. They needed good information quality, a wide product range, undamaged products and such other website attributes. This segment shows results similar to Monsuwé *et al.* (2004) and Wu (2003). Attitudes towards online shopping significantly varied with socio-demographics, purchase preference, benefit perception and online shopping rates (Table IV).

Objective 2: to adapt the hierarchy-of-effects model (ABC model) in order to explain the attitudes of above online segments.

All the above variables were analysed for relationships using multinomial logit analysis. When the variables were interpreted using the ABC model of attitude formation, the following three types of segments of online buyers in were found: CAB, CBA and BCA.

e-usage→	Segment 1 Less than 2 hours daily	Segment 2 2-4 hours daily	Segment 3 5-8 hours daily	Segment 4 More than 8 hours
Influence of socio-demographics		Age and profession influence here	Age and profession influence here	Age and gender influence here
E-usage (behaviour)		Online buying experience influences this segment		
Benefits of internet (cognition)	Highest positive knowledge is shown by this segment			
Enjoy online shopping (affect)				Highest positive attitude is shown by this segment
Love for local shopping (affect)		This is high in this segment		
Personal observation (affect)		Is needed by this segment	Is needed by this segment	Is needed by this segment
Lack of trust on e-retailers (affect)	Fear is low	Fear highest here	Fear is low	Fear is medium
Fun element (affect)	Is needed by this segment			Is NOT needed by this segment
Website attributes preferred (cognition)			Is needed by this segment	Is needed by this segment

Table IV.
Segmentation of online buyers based on their e-usage and their attitudes

Segment CAB: this segment of respondents had "cognition" that traditional shopping experience is better than online shopping. This cognition influenced ($R = 0.34$) their lack of trust on online shopping, which is "affect" statement. This shows the C→A, relationship. The A→B relationship is shown by the value $R = 0.53$ between this affect and intention to online shopping (affect) and this behaviour mildly influenced ($R = 0.28$) their online buying experience (Figure 1).

The results shows that if we apply the ABC model amongst the online buyers in India, one attitudinal segment is CAB. The CAB attitude formation is the standard learning hierarchy model of attitude formation. This segment seeks a lot of information and carefully weighs alternatives. This segment would show the least online buying experience because it takes time to develop confidence in online buying. We can relate this finding, CAB segment, with the Indian market. Indian consumers are used to traditional shopping, that is buying goods from local stores. The habit of local retailing is due to accessibility, credits that they get, less volume buying and negotiation experience. The online shopping requires a personal computer, internet access, credit card, internet banking facility and knowledge to use all of this. Further online shopping demands confidential information such as credit card details. This further increases the mistrust on online shopping. Traditional local store buying is so strong in the Indian culture that the shift to online shopping medium has to be "learned" by online users in India.

Segment CBA: the second group of respondents have favourable "cognition" about online shopping. This group showed that they had knowledge of the benefits of online shopping (cognition) (attitude 2, 4, 5, 11, 16). This "cognition" positively influenced ($R = 0.76$) their online buying "behaviour". Thus C→B relationship is established here. Their online buying experience (behaviour) further positively influenced ($R = 0.28$) to their intention to do online shopping (affect). Thus, B→A relationship is established (Figure 2).

The CBA segment shows two symbiotic relationships. The C→B concentration value is very strong. Indian online users understand the convenience of getting products home-delivered through online shopping. They also know other benefits of online shopping – lower price, better quality and freedom from hassles of shopping from local stores. The B→A relationship indicates that more time the online users spend using internet daily, purchasing travel tickets or movie tickets or gifts or for chatting or socializing or professional networking, more confidence they will gain. Once an online user has had an experience of online shopping, it gives him or her a great deal of freedom and control because it is convenient, it is accessible and it allows product and price comparisons. Therefore, if consumers experience smooth transactions online overtime and feel confident about online transactions and shopping at online retailers, they are more likely to have higher purchase intentions for the online retailer website.

Segment BCA: the third group of respondents displayed that they had formed attitudes favourable for adoption of internet shopping behaviour based on internet usage. This group showed that internet usage (behaviour) influenced the perception of benefits of online shopping (attitudes 2, 4, 5, 11, 16) (cognition). Thus, behaviour influenced the formation of cognition, B→C. The knowledge (cognition) of benefits of online buying experience further augmented two kinds of favourable attitude towards online shopping, one the intention to purchase online in future ($R = 0.36$) and the other the enjoyment of online shopping ($R = 0.37$).

The BCA attitude formation is not according to the original ABC model of attitude formation. This model of attitude formation appears to be unique to Indian online users (Figure 3).

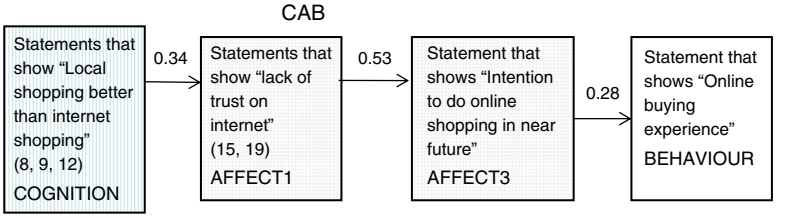

Figure 1.
The CAB attitudinal consumer segment

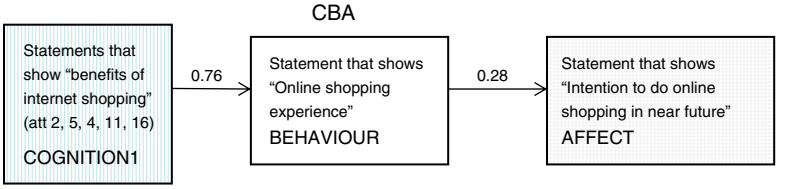

Figure 2.
The CBA attitudinal consumer segment

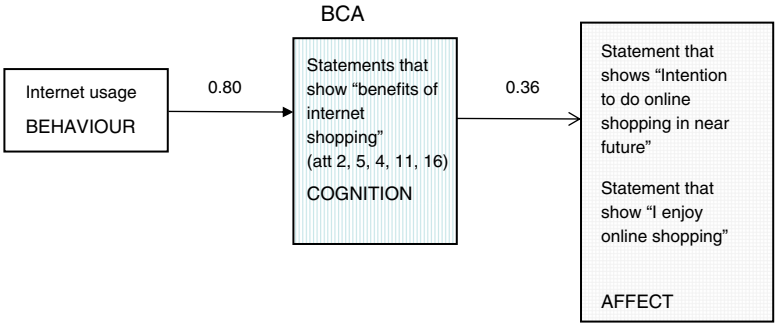

Figure 3.
The BCA attitudinal consumer segment

Conclusions

There have been many studies in past about online consumer behaviour. Most of the studies have been done based on demographics of online buyers and their perceptions and internet usage patterns. There also have segmentation studies in past, and those also were largely done based on demographics. This study concentrated on attitudinal segmentation and used the ABC model of attitude formation.

The aim of this study was to find what made online users become online buyers. To understand online consumer behaviour, the first objective was to identify differentiating attitudes based on differences in e-usage. Based on findings, it is concluded that those online users who used internet for more than eight hours daily, trusted online buying and their buying preferences were dependent on age and gender. Findings also showed that the lowest users of internet found online buying fun and used to buy just for fun. And they had high level of mistrust about online buying. However, they also showed that their perceived risks could be reduced if websites had hedonic attributes and if their friends recommended online purchases. There was a third segment of those online users that used internet for two to four hours daily. This segment showed polar attitudes. They did online shopping, and at same time showed high perceived risks. This lead to second objective the study that is understand how online buyers formed their attitudes.

ABC model was used to understand attitude formation of online buyers in India. Three segments were hypothesized based on the ABC model. Of these, based on findings, two are accepted. These segments are: CAB (segment 1) and CBA (segment 2). The third segment was in contrast to the ABC model. The third segment showed BCA model of attitude formation. No past studies have shown BCA segment of online buyers. The CAB segment shows attitude formation on online non-buyers. This segment is comprised of traditional offline buyers of India. The findings indicate that CAB segment can become active online buyers if websites are made more recreational, experiential and socializing as local shopping experiences.

The CBA segment and BCA segments are comprised of online buyers. The difference between the two is their motivators. While CBA segment will shop more online if their confidence is built up through engagement as in chat rooms, personal assistants, show-rooms and virtual fitting rooms – in the case of apparel, the BCA segment are shopping simply because they use internet heavy (more than eight hours daily). This study, just as the past studies have indicated (Fusilier and Durlabhji, 2005), with higher levels of internet usage, perceived usefulness of online buying increases and so does online buying (BCA segment).

Implications of research in theory and practice

This study used ABC model to segment the online users in India and this was fairly successful. Attitudinal segmentation resulted in three types of online users: first, who understands the benefits of online shopping; second, who loves traditional mode of shopping (offline); and third, who is scared of online shopping.

Segment 1, the online users that understand the benefits of online shopping, are the segment that e-retailers should keep specifically target to convert them into loyal e-consumers. This segment initially demands excellent product range and accurate information quality from e-retailers. With time, these users mature as online buyers and will demand better quality of products, warranty, fashion, customization and comparison with other alternatives. Online retailers must give this segment better services as mentioned above, so that these consumers become "loyal" and act as positive referrals to entice other "less active" online buyers.

The second attitudinal segment comprises of those online users who still prefer traditional "offline" buying from retail stores. These online users still do not trust e-retailers and lack faith in cyberspace security, specially relating to personal credit card information. Also, they would prefer to personal examination of products and immediate exchange of money-product rather than waiting for a couple of days for product to be delivered to their homes. The third attitudinal segment is the one that has exhibited "fear" of online shopping. For both these segments, e-retailers must adopt confidence building website attributes such as referrals from others and cash-on-delivery payment options. Online retailers should also strengthen the supply chain system so that products are delivered on time and undamaged. The legal policy of India related to contract enforcement, consumer protection and privacy, liability assignment, privacy protection, intellectual property rights and cross-border trade, should be implemented forcefully. Online retailers should in fact educate their online visitors on these laws. Thus, the online consumers are likely to have high trust in the online retailer's competence, integrity and benevolence, and will develop a willingness to purchase.

Limitations of research

This study has some limitations owing to its exploratory stage and presents several challenges with respect to theory building and methodology. Some variables relating to internet shopping like shopping orientations, culture and vendor characteristics, are omitted in the model. A comprehensive model of internet buying behaviour will be required for further research. Validation of the current research findings within other cultures is also worthy of future study. The moderating impacts of different products or service categories, as well as the impact of new channels of internet access (such as mobile phones), are avenues that merit attention as well.

As with any conceptual model, the model proposed in this study has its own limitations. First of all, this research study sets up a conceptual framework that includes several factors that are believed to drive consumers to shop online. Although the conceptual framework of this study is based on a combination of results from many different studies on the subjects of online shopping, technology acceptance and the acceptance of the internet as a shopping medium in particular, there can well be other influences on consumer intentions to shop on the internet that have not surfaced in the literature to date, or that has been addressed in other literature studies. However, the researcher is confident that she has given an overview of the most relevant factors in this context.

Future research

This study emphasized on internet usage, online buying behaviour, buying intention and attitudes. This study has not considered "internet availability", "cost of internet" and its effect on time spent doing online buying. Future research can consider these factors. Future study on online consumer behaviour must be studied with points of access and devices as a significant antecedent.

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