TO CONSTRUCT AND VALIDATE THE ONLINE CONSUMER BUYING BEHAVIOR MODEL

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Abstract:

Purpose of the study is to construct and validate model of factors affecting online buying behavior of consumers. The study proposes a model of online buying behavior.Demographic factors are important in buying decisions of consumers but Model proves that convenience, awareness, attitude, experience, usage of internet facility are inter connected factors and has effect on the decision to buy or not to buy from the online sources.

A quantitative research method was used with convenient sampling of online buyers. Questionnaire was filled in physical form and also through online mode. SPSS and Amos were the two software used to analyze the data.

Keywords : Online Consumer Behaviour, E-commerce, Digitalization,

Introduction:

E-commerce and internet has changed the way of consumers to buy the products.There is large transformation seen in the way consumers buy the products .There is remarkable change in consumer buying from traditional methods (brick and mortar stores) to online buying through portals. High level of disposable income and changing life style are among few factors influencing online buying behavior. For some consumer online buying is daily activity and has mastered the skill of shopping through various portals/website but for other consumers it is a new experience or nothing attracts them to buy online. Security issues and privacy of personal information are the factors which online sellers need to take care and gain trust of the regular consumers. The convenience of buyers to buy from home without standing in queues and face heavy traffic in city makes success of online.

Literature Review :

Ronald E. Goldsmith et.al (2000), studied the attitude of consumers towards e-commerce, consumers who made online purchase and consumers who did not purchase. Results showed online buyers showed positive attitude towards online buying compared to non-buyers. Online buyers felt easy to place orders through internet.

Hairong Li et.al (1999), attempted to identify the factors that predicts consumer's online buying behavior in U.S. They proposed a model for consumers online buying behavior and found that education, convenience orientation , experience orientation, channel knowledge   perceived distribution utility and perceived accessibility are predictors of online buying status i.e frequent online buyer, occasional online buyer or non-online buyer.

Vilasini Jadhav et.al (2016) considered factors like low price, variety of products, time consciousness, Convenience, promotions and comparison. Exploratory research was used by conducting focused group discussions and Qualitative research methodology

Prachi Goyal et.al (2015) examined the issues faced by e-commerce industry and factors influencing consumer's buying decision among citizens of Jaipur, Delhi and Bangalore

Prashant Singh (2014) analyzed the users of flipkart.com (Lucknow city) mainly interested in buy online apparel- Like mens, womens and kids clothes, watches, home & kitchen appliances etc. and they dislike buy online perfumes & footwear etc

Prayatna Jain et.al (2016), studied various factors which influence the online buying, also helps to understand how the demographic variables, geographic locations and time frame affects the outcome of the study and lead to change in the trend of consumers' expectations.

Bhuvan Lamba et al (2014), found the influence of the internet is far reaching because the information can be quickly spread out anywhere and anytime with the help of internet. To draw up a marketing strategy effectively, marketing managers have to consider which type of strategy should be used in addition to making good use of word-of-mouth

Objectives :

1. The proposed study aims to understand and study various factors that affect consumer Online buying behavior.
2. To develop and validate the model for factors that affect consumer online buying behavior.

Research Methodology:

A quantitative research was conducted using convenient sampling method and information was collected through questionnaire. The questionnaire was distributed in physical form as well as through online forms. Data was collected from 374 individuals who has done online shopping in last 6 months before the date of survey. Working professionals, house wife's, working women and college students were included in the population.

Data Analysis:

The data analysis was carried out using SPSS 22and AMOS 22 version software**.**

KMO statistics and Bartlett test of sphericity was carried out to verify the confidence level and the sampling adequacy before conducting the exploratory factor analysis. The measures suggested that the data is suitable for factor analysis and hence the same was carried out. The study used Varimax rotation, the most popular method when a study aims to simplify a factor structure.

Table**:** KMO and Bartlett's Test[a]

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.546
Bartlett's Test of Sphericity	Approx. Chi-Square	14480
	df	780
	Sig.	.000

The Kaiser – Meyer – Olkin measure of sample adequacy is 0. 546, indicating that the present data is suitable for principle component analysis (the minimum acceptable value is 0.5). Similarly the Bartlett's test of sphericity is highly significant (0.000) indicating sufficient correlation between variables.

1] Exploratory Factor Analysis:

The first solution of exploratory factor analysis with Varimax rotation in 25 iterations resulted into a model of 8 factors with 33 items converged into it. To make the factor size manageable for data analysis and to reduce the factors with single item, exploratory factors analysis was again conducted with the number of factors forced selected to 7, 6 and 5. Factor model with 5 factors was found to be the best with most of the items with similar construct loading on the same factor. This model with 5 factors explained 65.7715 (~66%) of total variance. Factors with factor loading less than 0.5 were not considered and were eliminated. Thus the final factor model had 20 factors retained with factor loading more than 0.5.

Examining the contents of these items, factor 1 was labeled as "Online Purchase". Factor 2 was labeled as "Awareness of online shopping". Factor 3 was labeled as "Convenience". Factor 4 was labeled as "Attitude towards online shopping". Factor 5 was labeled as "Prior Experience".

2] Confirmatory factor analysis for the proposed model of consumer buying behavior for pre owned car.

A factor model resulted was confirmed using Confirmatory factor analysis using AMOS 22 version. The model was tested for its reliability, validity and goodness of fit . Multiple indices of model fit viz. Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and a badness-of-fit index, Root Mean Square Error of Approximation (RMSEA) were used in the study.

The proposed model consisted of five constructs with twenty variables influencing online buying behavior. All latent constructs and its reflective indicators were depicted in a measurement model. Before calculating the estimate all latent constructs were allowed to correlate with each other.

Hypothesized model testing and analysis was conducted through three approaches. First, the proposed model analysis was conducted using covariance and most widely used maximum-likelihood estimation method. (Anderson and Gerbing 1988). Second based on Bollen (1990) recommendation, the present study examined multiple indices of model fit because a model may achieve good fit on a particular fit index but be inadequate on others. Third, the measurement scale was tested for reliability and validity.

Hypothesized model was subjected to the first order confirmatory factor analysis using AMOS 22. Fig. shows an identified factor model with five latent variables..
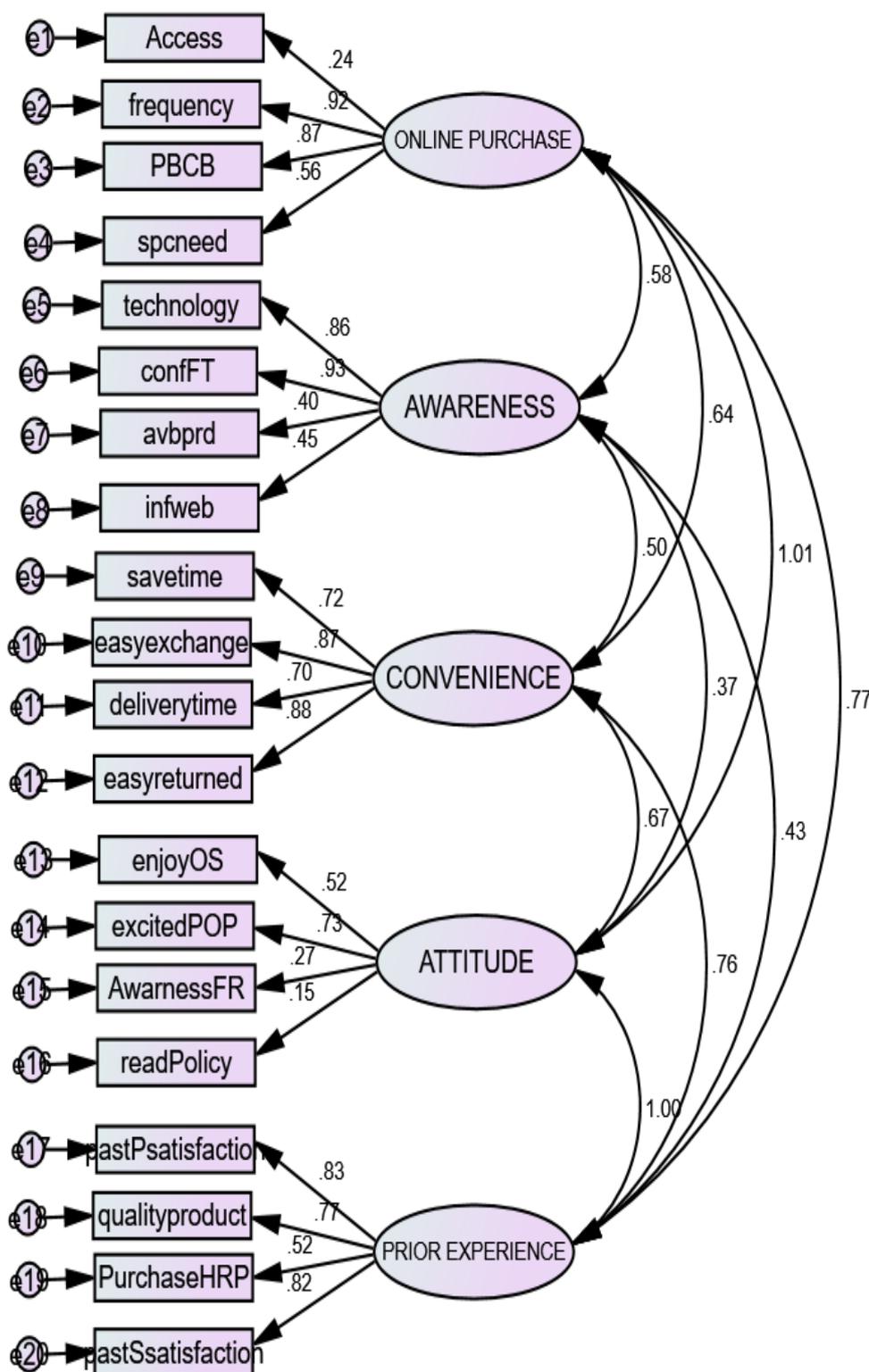
Assessment of Goodness of fit:

Based on Bollen (1990) recommendation, model fit for the present study was examined using multiple indices which include Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and a badness-of-fit index, Root Mean Square Error of Approximation (RMSEA) (Hu and Bentler 1999).

As a common practice, acceptable model fit is indicated by value greater than .90 for GFI, CFI, TLI and a value of less than 0.08 for RMSEA. However, a cut-off value close to .95 for TLI, CFI; and a cut-off value close to .06 for RMSEA are needed to support that there is a relatively good fit between the hypothesized model and the observed data (Hu and Bentler 1999).

The measurement model incorporated five latent constructs indicated by respective items pertaining to scale. After the analysis, the CFA model revealed the values for various model fit indices as follows;

Sr. No.	Parameter	Value
1	Chi-Square (χ^2)	1131.49
2	χ^2/df	1.539
3	Goodness-of-fit index (GFI)	0.903
4	Tucker-Lewis index (TLI)	0.969
5	Comparative fit index (CFI)	0.972
6	Root Mean Square Error of Approximation (RMSEA)	0.032

The measurement model fit the data well. The chi-square value was expected to be significant due to large sample size. Instead, the Chi-square normalized by degrees of freedom (χ^2/df) was referred to. An acceptable ratio for χ^2/df value (1.539) was reported. The three fit indices for GFI, TLI, and CFI were substantially greater than .90 thresholds for acceptability. Lastly, RMSEA value also reported to be well below the cut-off value of .06. The above values indicates a good model fit based on the observed data.

Reliability test:

A multi-item scale was employed in this study; Chronbach's alpha estimate was used as a verification of the reliability of the composite items comprising each scale construct.

The Cronbach's alpha value for all factors exceed the minimum standard for reliability of 0.70 as recommended by Nunnally (1978) for basic research. Thus, the results indicate that the scale is highly reliable and clears the test of reliability.

Validity testing:

The present study adopted Straub's (1989) measurement validation procedures to test construct validity in terms of convergent validity and discriminant validity.

Convergent validity:

Convergent validity was assessed by checking the loading of each observed indicators on their underlying latent construct (Anderson and Gerbing 1988). The CFA results include the standardized factor loadings as well as the item reliability. The CFA results indicated that each factor loadings of the reflective indicators were statistically significant at 0.001 level. In addition, the factor loadings ranged from 0.624 to 0.914 and no loading was less than the recommended level of 0.50. Next, the squared multiple correlations in the CFA model was examined. The squared multiple correlations of all constructs in the measurement model were higher than the acceptable level of 0.50 (Bollen 1990). This indicated that all of the latent constructs in the present study accounted for more than half of the explained variance in each indicator. The construct

reliability results displayed adequate reliability, in that the reliability of each construct exceeded the 0.7 threshold (Nunnally, 1978).

Discriminant validity :

As suggested by Fornell and Larcker (1981), discriminant validity was determined by the variance extracted value, namely whether or not it exceeds the inter-construct correlations associated with that construct. It was found that the variance extracted of each construct is all above its correlation with other constructs suggesting discriminant validity is established.

Findings :

In this paper, we tried to study various factors influencing online buying behavior in Indian market for various segments of population. This research helped us to understand the conceptual framework of consumers' behavior towards online shopping sites. With the help of above study, we can state that there are different elements which influences the buyer's state of mind towards web shopping options. The reliability and validity analysis confirmed the five factor model for influencing the online buying behavior.

Limitation of the study:

The study was restricted to Pune city only. However the population of the city exceeds 50 lakh and also due to good educational facilities and better employment opportunities, most of the people from different states in India have come and settled in Pune, producing a good mix of people from different culture, profession, income and educational background.

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