

MODELING OF CONSUMER BEHAVIOR OF ONLINE SHOPPING OF SELECTED ELECTRONIC GOODS IN HARYANA

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Abstract

Internet buying is a new concept that has given everyone countless opportunities. India is third in the world for internet shopping, behind Japan and America. In the last ten years, the Internet has experienced remarkable growth as a medium, and online shopping is the fastest-growing segment of browsing. The major goal of this probe is to investigate, in particular, what characteristics have a direct impact on consumers who shop online. The five determining factors-pricing, promotion, success, influence, and hindrance as well as the effects of a total of 34 different variables were all investigated. A Google form was used to collect data from the 650 respondents, and second-order CFA was used to analyze the results. The results illustrate that, except for influencing (0.458) and price (0.449) in the case of the primary construct for consumer behavior, factor loadings for all constructs were reported above the approved threshold of 0.5. According to numerous studies, low factor loading (0.5) is acceptable if the sample size is greater than 300, the composite reliability and AVE of the construct were above acceptable levels, and the model fit indices are recorded within an acceptable range.

Keywords: Consumer behavior, Online shopping, Electronic goods, Models of consumer behavior, Influencing factors, CFA

INTRODUCTION

India's online retail industry has grown significantly in recent years. With the fast expansion of e-business, one of the primary areas of study in information systems and marketing sciences has been the study of online purchasing behavior. Along with completing online purchases, consumers use the Internet to compare prices, the features of products, and the after-sale services offered by various businesses. The success of electronic commerce depends on online consumer habits. With the help of e-commerce, several types of businesses have been given the chance to boost their sales and keep a direct line of communication open with their clients. Shopping online provides customers with convenience and other benefits, but it also has significant benefits for corporate organizations. For example, it lowers sales and marketing costs and total operational costs, which boosts efficiency and increases profit margin.

REVIEW OF LITERATURE

Chung and Lee (2003) reported consumer satisfaction levels and repurchase intentions in online shopping malls as a function of 15 variables. The research factors included demographics, product perceptions, customer service, perceived usability, site image and endorsement, perceived customer risk, human being characteristics, and online message environments. Email and the Internet were used to distribute the questionnaires. 742 surveys

totaling about 5,200 were collected. After eliminating 42 from which the responses were unsatisfactory, 700 were then used for the analyses. The study's findings revealed that customer satisfaction with online shopping malls positively increases repurchase intention, In contrast, all other characteristics and repurchase intention had a negative correlation with perceived customer risk.

Xu et. al., (2010) from the viewpoint of perceived risk, conducted research was done on customers' acceptance and purchasing of risk mitigation services through C2C online BIN auctions. Based on pertinent theory, a research model was produced. An experiment system built on the web mimics the transactional flow in C2C online markets; information was gathered from American and Chinese consumers. To complete the transactions, 99 Chinese and 98 Americans in total registered for the system. Missing item transactions were deleted from the database after the experiments. 3,913 transactions from American subjects and 3,938 transactions from Chinese subjects were both subjected to analysis. The proposed hypotheses were examined using multiple linear regressions and logistic regressions. The study's conclusions had consequences for the operation of online marketplaces and the formulation of business strategies since they offer a thorough appreciation of consumer actions on transaction-level C2C online markets.

Nazir et. al., (2012) examined the elements that directly impact consumers when they shop online. 120 questionnaires were delivered to the general public and students at several universities as part of a survey. Data was collected from a variety of teachers, students, and members of the general public who worked in various professions. In the Pakistani region of Faisalabad, questionnaires were distributed to 80 instructors, students, and 40 members of the general population. To examine the responses, frequency distribution, average, and chart analysis were used. The examination of survey data revealed that although most individuals previously store online and choose to do so, there are still several aspects, such as psychological factors, social factors, emotional factors, and retreat concerns that have an impact on consumer attitudes toward online purchases. Price, trust, convenience, and recommendations were shown to be significant determinants, according to the findings.

Bagga and Bhatt (2013) recognized the wide range of internal and external factors that impact customers' online shopping choices. The goal of the article was to ascertain these factors and how much of an impact they had on consumers' purchase decisions. This article's theoretical approach is built on a wide body of Internet marketing literature. ANOVA and independent t-tests were two techniques used to empirically assess the hypotheses that were constructed utilising the independent and dependent variables. Investigative factor analysis was used to find the dependent and independent variables. This involved surveying a sample of 200 people using a structured questionnaire and judgmental sampling with a five-point Likert scale. Respondents completed questionnaires in person, and they were also mailed and posted online. Respondents were chosen from a pre-defined list based on their demographic profile. Seven significant internal and extrinsic elements that influence consumers' purchasing decisions were revealed by the exploratory factor analysis. It may be said that these seven criteria are the main determinants of consumers' purchasing decisions online, but their effects fluctuate from one

another and from person to person depending on their demographic profile. Recreational needs, information exploration, safety and privacy concerns, worth, online publicity, website characteristics, and social media were the factors noted.

Chandra and Sinha (2013) studied elements influencing one of the biggest problems in the field of e-commerce and marketing may be client online shopping behavior. A descriptive research design was employed in this study because the paper will assess the features of customer intention and purchase in relation to internet shopping. The targeted respondents from Bhilai were the ones for whom the structured questionnaire was utilized to collect replies. Researchers often employ two strategies for gathering data: the primary approach and the secondary method. We employed convenience sampling. Bhilai and the sample of 100 residents from Bhilai made up the study's population. We employed one-way variance. For this study's independent variables, multiple regressions were performed. The findings of the link between age and attitude towards online buying revealed that there was a very strong positive correlation between the two.

Jawa and Chaichi (2015) discovered elements that may have an impact on Saudi Arabian shoppers' online activity. From the literature, quality of website design, perceived trust, perceived handiness, and advertisements & promotion were the four characteristics selected. The study's intended audience was the whole Saudi Arabian Internet retail market. In essence, 120 individuals from Dammam City, comprising men and women, Saudis and foreigners, represented the sample size of the overall population of internet shoppers in the kingdom. However, only 107 of the 120 participants who were asked to complete the survey had done so. 89% of people responded. SPSS software was used to examine the data that had been collected. The outcome shows that one hypothesis has been verified. The study's conclusions demonstrated that only quality, out of all the variables, affected Saudi Arabian customer behavior.

Jadhav and Khanna (2016) explored the elements affecting college students' internet purchasing habits. The following factors were found to be the primary influencing variables for online purchasing availability, low cost, advertisements, comparison, ease of use, and customer service, as well as a perception of usability, a mindset, time-consciousness, trust, and a desire for variety. This study used a qualitative research design to better understand the variables that change college students' online acquirement decisions. A convenience sample strategy was utilized to interview 25 college students in Mumbai who were enrolled in undergraduate and graduate programs. Each student in Mumbai was subjected to a one-on-one depth interview. Each interview lasted anywhere between 45 and 60 minutes. 25 college students from both undergraduate and graduate programs provided their assent and took part in the detailed interviews. Findings showed that Myntra.com and Flipkart.com were the two online merchants that students most frequently mentioned when shopping online. The most desired method of payment mentioned by the students while shopping online was cash on delivery.

Pappas (2016) focused on the views of travelers who book their vacations online. The best strategy for gathering primary data for this study was organized personal interviews with

structured questionnaires. The study's goals were most accomplished through in-person interviews. The survey, which had a 41 Likert Scale, was based on earlier research. The data that had been collected were examined using regression, factor analysis, and descriptive statistics. In addition to using a structural equation model, the research's validity and reliability were evaluated using KMO-Bartlett, loadings, and Cronbach's alpha. The findings showed that consumers' top priorities were to buy a travel product at a fair price that was also of suitable quality when compared to other similar products.

Bucko et. al., (2018) identified elements that influence consumers' propensity to buy from an online retailer. The survey questionnaire was done to help the study team reach their goal. The entire population of Internet users in the Slovak Republic made up the general sample. The sample was specifically chosen for the study's goals. 232 people participated in the survey in total. After eliminating missing and severe values, the researchers only looked at 221 cases. The respondents' median age was 21, and their average age was 21.72 years. The investigation revealed that a model with seven latent variables effectively fits the data. Researchers were able to create a more accurate model by integrating correlations between variables, which proved that the latent variables created through an analysis were accurate.

Rungrisawat et. al., (2019) identified motivators and influences on customers' online shopping behavior. Because it was helped prove and apply the premise, this study's methodology was quantitative. It was a correlation study to determine the connection among the changeable. SPSS is the program for statistics utilized in this study, and this run included reliability analysis and multiple regression analysis. The target population was people living in Malaysia who were 18 years of age and older, and the sample size was 350. The study's conclusions revealed that the assumptions were correct, and the literature analysis supplied in line with past studies supported the study's central concept. Perceived profit and emotional factors had a direct and important association with online buying behavior, whereas perceived risks had an inverse and unfavorable relationship.

Wai et. al., (2019) analyzed the risk elements include financial risk, convenience threat, non-delivery consequences risk, return policy risk, and product risk have an impact on how Malaysians shop online. The researchers employed a self-administered survey to collect empirical data from 245 Malaysian online shoppers. After determining the data's reliability using Cronbach's alpha, the data's normalcy was evaluated. The model was then put to the test using confirmatory factor analysis and goodness-of-fit tests. The hypotheses were examined, and findings were drawn using structural equation modeling. Data analysis was done using AMOS version 22.0. The study found that Consumers' online purchasing decisions were significantly and favorably impacted by the three risks associated with convenience, return policies, and products. Financial risk was found to have a small but unfavorable impact on consumer behavior. A useful method for assessing and controlling perceived risk when shopping online was presented by the research, which could boost consumer engagement and lessen Malaysians' cognitive deficits in the e-commerce environment.

Jung et. al., (2020) attempted to identify the psychological influences that underlie and obstruct Chinese customers' behavioral intentions toward sustainable garment goods, including

consumption ideals, social norms, and views towards such products. To investigate data from an online poll were used to examine the moderating impacts of consumer values and social norms. The questionnaire's anonymous, voluntary nature and the absence of any benefits were made clear to participants in writing before they were contacted by a reputable, international internet survey company. 240 Chinese respondents, the sample size for this study consisted of both male and female participants, whose ages ranged on or after 20 to 49. The citizens of China's major cities of Shanghai, Beijing, and Chengdu were the target audience for the sample that was carefully gathered. The purchase intention of Chinese consumers toward SAP was found to be strongly influenced by their attitudes toward SAP, according to the results of a moderating regression analysis. Aesthetic values were found to positively moderate this relationship, whereas conspicuous values negatively moderated it.

Jia Hua and Nuangjamnong (2021) through internet streaming and purchasing in entertainment marketing, it was possible to identify the aspects that influence consumer behavior. The ambition of this study was to confirm the connection linking social connections, a common language and vision, and trust, as well as the relationship between trust and brand attitudes and gifts. For 410 sets, the questionnaire served as the means of data collection. Hypothesis testing, basic linear regression and descriptive statistics like frequency, mean, and standard deviation were utilized in the data investigation. According to the study's findings, social relationships, shared language, and vision do not significantly affect trust, but trust does significantly affect attitudes toward brands. The testing of all hypotheses showed a considerable beneficial impact of online streaming purchasing on customer behavior in the entertainment market.

Davidaviciene (2021) examined the crucial aspects of e-store attributes and product features that have a significant effect on consumer purchase behavior when shopping online. The research objective was accomplished using a variety of research techniques, including survey, correlation, and regression analysis. The Results of the poll showed that traditional shopping was preferred by Lithuanian consumers over online buying. The findings of the analysis suggested that Lithuania has a rising market for internet purchases. According to the survey findings, online store security and e-store design were the two factors that have the biggest impact on Lithuanian customers' online purchasing decisions. Moreover, product design and packaging as well as price were found to be the most influential product attributes about consumer purchasing behavior when shopping online. For Lithuanian consumers purchasing online, correlation and regression analysis demonstrated that important aspects included the design and security of the e-shop, the packaging and design of the products, the prices of the products, and user reviews.

Al Hamli (2023) evaluated the elements influencing online shopping in Saudi Arabia during COVID-19. The five primary elements for online shopping were product variety, ease of use, payment options, trust, and psychological considerations that were found in the literature research and the context of Saudi Arabia, which were examined and analyzed. Using the use of a pre-tested instrument that was addressed to Saudi online consumers using various electronic means like email and social media platforms, the research collected data online.

There were 256 respondents in the research sample, 36 of whom were ignored because their responses were insufficient. Only 220 questionnaires were formally used in the study as a result. Only three elements, according to the findings of a statistical investigation, directly and significantly affect online shopping during the COVID-19 epidemic. These elements included the range of products, the mode of payment, and psychological elements. COVID-19 did not significantly affect customers' decisions to shop online in terms of convenience or confidence. Both of these variables were less significant to customers because online buying was so popular during COVID-19.

RESEARCH OBJECTIVE

The goal of the study is to develop and verify a model of shopper behaviors for Haryana consumers purchasing online electronic products.

RESEARCH METHODOLOGY AND ANALYSES

The investigation of factors, in particular those that directly affect online shoppers, is the study's primary target. Snowball sampling was used as the sampling technique. We sent out 725 emails inviting them to take part in the study and complete the online survey that was made available. We got 650 survey responses. The AMOS was used to examine the data. The following technique were employed: Second order Confirmatory Factor Analysis (CFA)

RESEARCH HYPOTHESES

H₀₁: There is no significant impact of influencing factors on consumer behavior while purchasing electronic products online

H₀₂: There is no significant impact of success factors on consumer behavior while purchasing electronic products online

H₀₃: There is no significant impact of hindrance factors on consumer behavior while purchasing electronic products online

H₀₄: There is no significant impact of promotion factors on consumer behavior while purchasing electronic products online

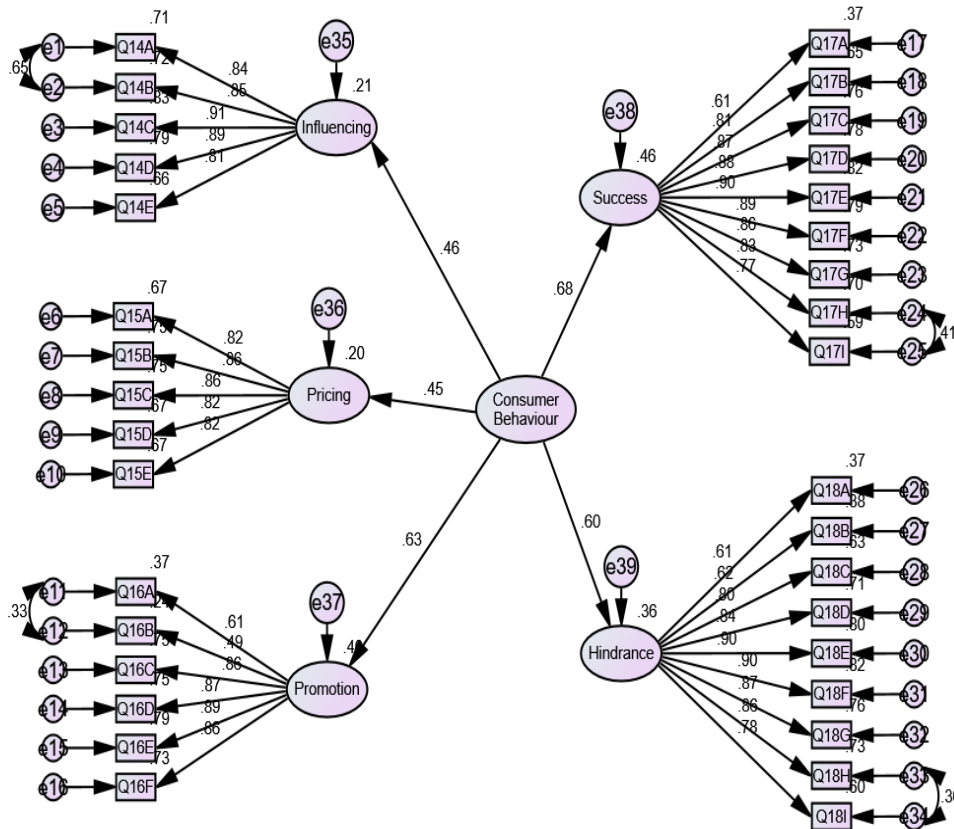
H₀₅: There is no significant impact of pricing factors on consumer behavior while purchasing electronic products online

Second Order Confirmatory Factor Analysis

The Second Order Confirmatory Factor Analysis could be a practical procedure used by the man of science to verify that the theorized construct in the study loads into a bound variety of underlying elements. In the current research, the theory posits that the Consumer Behavior construct consists of underlying (Influencing, Pricing, Promotion, Success & Hindrance) sub-constructs, and every sub-construct was calculated with the help of various items included in an assessment tool. The researcher's objective was to measure the effect of the main construct (Consumer Behavior) in online shopping on Influencing, Pricing, Promotion, Success, and

Hindrance. Hence, Consumer Behavior becomes second-order construct while others become a first-order construct.

Figure 1: Second Order CFA measurement model



AMOS Output

Hair et. al., (2006) represented that factor loading values of all items and variables must be above 0.50 for their particular constructs. Table 1.1 shows that factor loadings of all constructs reported above the accepted value of 0.5 other than influencing (0.458), pricing (0.449) in the case of Consumer Behavior main construct. Various researchers have stated that low factor loading (<0.5), could be accepted if the sample size is more than 300 if Composite Reliability and AVE of the construct were above acceptable values, and if model fit indices are recorded in an acceptable range (Cliff and hamburger 1967, Hair et. al., 2006).

Table 1: Reliability and Validity values- Second Order CFA measurement model

Construct	Item	Factor Loading	CR (Above 0.7)	AVE (Above 0.5)
Consumer Behavior	Influencing	0.458	.725	.352
	Success	0.679		
	Hindrance	0.603		
	Promotion	0.634		
	Pricing	0.449		
Influencing	Q14E (IE5)	0.811	.891	.620
	Q14D (IE4)	0.888		
	Q14C (IE3)	0.911		
	Q14B (IE2)	0.85		
	Q14A (IE1)	0.844		
Pricing	Q15E (PRI5)	0.822	.891	.620
	Q15D (PRI4)	0.817		
	Q15C (PRI3)	0.864		
	Q15B (PRI2)	0.864		
	Q15A (PRI1)	0.816		
Promotion	Q16F (PRO6)	0.856	.849	.494
	Q16E (PRO5)	0.887		
	Q16D (PRO4)	0.867		
	Q16C (PRO3)	0.864		
	Q16B (PRO2)	0.487		
	Q16A (PRO1)	0.605		
Success	Q17A (SU1)	0.609	.924	.576
	Q17B (SU2)	0.806		
	Q17C (SU3)	0.871		
	Q17D (SU4)	0.882		
	Q17E (SU5)	0.904		
	Q17F (SU6)	0.891		
	Q17G (SU7)	0.856		
	Q17H (SU8)	0.835		
	Q17I (SU9)	0.768		
Hindrance	Q18A (HIN1)	0.608	.901	.508
	Q18B (HIN2)	0.62		
	Q18C (HIN3)	0.797		
	Q18D (HIN4)	0.844		
	Q18E (HIN5)	0.896		
	Q18F (HIN6)	0.903		
	Q18G (HIN7)	0.873		
	Q18H (HIN8)	0.856		
	Q18I (HIN9)	0.777		

Source: Primary data

Model fit indices

As per Table 1.2, the actual value of SRMR in the study reported 0.086, a little bit higher than the acceptable range of 0.08. Incremental fit, measured by CFI received a value of 0.925 i.e. greater than the acceptable level. The value of RMSEA reported 0.066 within acceptable norms. This indicated measurement model is a good fit model.

Table 2: Model fit indices

Name of Criteria	Index	Actual Values	Acceptance Level	Literature
Absolute Fit	CMIN	3.074	CMIN<3	Awang (2012)
	RMSEA	0.066	RMSEA<0.08	Hair et. al., (2010)
	SRMR	0.086	SRMR<0.08	Hooper (2008)
Incremental Fit	CFI	0.925	CFI>0.90	Awang (2012)

Source: Primary data

Table 3 represented the regression coefficient value of all the variables. Among the variables of Consumer Behaviour, Success factors ($\beta = 0.679$) has highest beta value followed by Promotion factors ($\beta = 0.634$) and Hindrance factors ($\beta = 0.603$). Influencing and Pricing factors have beta value of ($\beta = 0.458$ and $\beta = 0.449$) respectively. All values reported significant at 0.1% level of significance.

All the above described null hypotheses were rejected as p value is less than 0.05. Hence, Influencing factors (H01), Success factors (H02), Hindrance factors (H03), Promotion factors (H04), and pricing factors (H05) found to have significant impact on Consumer Behaviour for online electronic purchase.

Table 3: Regression Coefficient

Structural Path			Standardized Regression coefficient (β)	S.E	C.R. (t-value)	P	Null Hypothesis
Influencing	<--	Consumer Behaviour	0.458	0.140	7.325	***	Rejected
Success	<--	Consumer Behaviour	0.679	0.153	7.728	***	Rejected
Hindrance	<--	Consumer Behaviour	0.603	0.142	7.425	***	Rejected
Promotion	<--	Consumer Behaviour	0.634	0.188	7.231	***	Rejected
Pricing	<--	Consumer Behaviour	0.449	0.144	6.517	***	Rejected

Note: Significance at P<0.001 level

MANAGERIAL IMPLICATIONS

There will likely be more e-commerce stores as the e-commerce retail industry grows. There will be fierce competition in this sector as a result. Only the customer's capacity to use a web browser limits their ability to satisfy their needs. Furthermore, comparison websites and e-commerce aggregators allow shoppers to quickly examine a range of online businesses from a one spot. The ever-increasing global rivalry, improved information accessibility, informed consumers, shifting relationships, quick innovation, and increasingly sophisticated products are gradually transforming the corporate world into an e-economy. The findings of this

investigation can be used through online merchants to design youth-focused retail strategies. The numerous factors revealed in this study can be focused on when creating retail strategies. To reduce the consumers' impression of risk, risk alleviation services are essential and crucial in online markets for pricey goods. Online marketplaces need to implement strategies to keep traders with high reputation scores. This study broadens the psychological aspects of sustainable clothing consumption in the associated fields.

CONCLUSION

According to this study, there are important aspects that affect consumers' online purchasing decisions. Online purchase behavior is influenced by the perceived benefits that e-commerce websites claim to offer as well as psychological factors like honesty. This study makes a significant contribution to the study of the electronic market by offering a thorough understanding of the variables, such as well as the factors affecting buyers', sellers', and traders' behaviors in the online C2C marketplace. A consumer's decision to buy something online is influenced by a variety of factors.

LIMITATIONS AND FUTURE SCOPE

This research has some limitations, although giving important insights into the elements that affect the attitudes and behaviors of online shoppers. Self-reported data from respondents were used in this study to evaluate their attitudes toward online purchasing. Self-reported data occasionally does not represent the respondents' real behaviors due to its nature. The results of our study can provide a future exploratory or definitive study in the field of internet purchasing behavior. A superior sample volume can produce more accurate results for testing theories in future studies. All of the influencing characteristics in the object crowd present an imperative expectations explore approach because customer decision-making in the garment sector may fluctuate depending on gender, age, area, and purchased items.

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