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An Empirical Study on the Factors Affecting Online Shopping Behavior of Millennial Consumers

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ABSTRACT

The online market in India is growing at an exponential rate, predominantly driven by the massive and extensive promotional activities. This strategy may not be appreciable in the long run, hence a real value addition is essential, which is explored through this study. The main objective of this research is to study about the determinants that are affecting the online purchasing behavior of millennial consumers. Conceptual framework, which consists of four factors that may induce online purchase behavior among millennial consumers: consumer innovativeness, perceived benefits, perceived risks, attitude and intention. The population of the study is from the millennial customer's segment of Chennai metro, Tamil Nadu, India, and the study used systematic random sampling. The statistical tools applied are chi-square, ANOVA, correlation, multiple regression, and factor analysis. From the outcomes of this study, factors influencing online purchase are analyzed, and suggestive strategies for online companies are recommended.

KEYWORDS

Attitude and intentions;
consumer innovativeness;
millennial consumers;
perceived benefits;
perceived risks

Introduction

As of June 2015, India, being the third largest user base of the Internet globally, had a user base of about 354 million. According to a previous study done in China, there are about 650 million users (48% of its total population), and the infiltration of e-commerce is very low compared to other international markets like the United States (266 M, 84%) and France (54 M, 81%), but is augmenting at an unusual rate, adding around 6 million new players every month. The industry concordance is that growth is at an inflection point. The compounded annual growth rate in comparison with that of the global growth rate is only 8%–10%.

In India, the online market is at an embryonic stage as the Internet penetration has not even exceeded 10% of its whole population. Also, cyber laws and regulatory framework are also in a nascent stage. Culturally, India has its own unique set of sensitivities and socio-psychological barriers. At this stage, the behavior of online consumers plays a dominant and vital role in the

online shopping industry. According to a IAMAI (Internet and Mobile Association of India) report, most online shoppers in India belong to younger age groups. Understanding the needs, tastes, and preferences of youngsters is not an easy task. Online shopping is a rapidly emerging trend in India. The number of new entrants in the Indian e-commerce industry is increasing equally. Before placing an order online or at the pre-purchase stage, consumers come across various prejudices. Consumers also face various challenges in online shopping. Most non-online shoppers have a fear being betrayed and less hope of getting redressed for their grievances. Consumers who shop online must feel only the convenience of it and not the problems in it. It is the responsibility of the online shopping sites to facilitate their shoppers who are unaware of the online buying process, payment method, and delivery of the product. Previous research has focused on the Internet usage pattern, demographic profile of the online shoppers, factors influencing the online shopping behavior, and perceived risks.

There are many research gaps from previous research; the outcomes are not very helpful to online marketers strategizing their online sales. Indian consumers are not very mature when compared to Western online consumers. Researchers have never focused on the fact that youngsters constitute the majority of the online shopping group. This research is focused on studying factors dominating the online shopping behavior of millennial consumers.

Statement of the problem

Since the inception of e-commerce companies in India, the shopping behavior has seen a dramatic change, and increased competition in the past few years has made buyers experience a wide range of choices, offers, and deals. On the other hand, they are also experiencing a lot of confusion, dissatisfaction, and betrayals. This has shown a direct impact on the sales of the retail stores. After experiencing the price difference and the convenience between e-commerce sites and retail shops, buyers refuse to buy a commodity from a retail shop when the same is offered for a lesser price by an e-tailer.

Apart from the consumer's general opinion, online shopping has also made retailers focus on customer needs, values, and means to satisfy the customers so as to sustain in the market. However, retailers are not able to compete with the e-commerce companies. Online shopping sites use the latest technology, offer a large assortment of products, provide value-added services to customers, offer goods and services at a very competitive price, and much more that the retailer could not do. Companies have been making every effort in connecting with this generation because many of the classic methods of advertising have proven ineffective at capturing their attention.

Objectives of the study

The objectives of the research are as follows:

- To study the factors dominating millennial consumers' purchase behavior,
- To study the effect of various factors influencing online shopping behavior toward customer satisfaction level,
- To understand the demographic profile of millennial consumers, and
- To make suggestions for improvement of e-business.

Literature review

Factors influencing online shopping behavior

The customer's attitude toward Internet usage and their perspectives toward e-shopping were analyzed in Ravi Kiran (2008), which found that cost and speed of the Internet were major influencing factors toward online shopping behavior. It also found that product information and reliability were considered very significant to shop online as far as Indian consumers were concerned. Another study (Sinha 2010) scrutinized factors influencing online shopping behavior among Indian customers and revealed that socio-psychological factors and their infrastructure were found to be inspiring factors. At the same time, expected risk notably was not very important as a whole. There was an indicative difference between the online buying/shopping behavior of both gender counterparts due to the varied risk perception. Arun Thamizhvanan (2012) concentrated on the Indian youth population under the same context and found that impulse purchase orientation, previous online shopping experiences, and trust toward online shopping had considerable impact on customer purchase motive. Males were found to have more impulsion to shop online than females. Richa's study (2012) reveals that online shopping in India is significantly affected by various demographic factors like age, gender, marital status, family size and income. The results of the study could be further used by the researchers and practitioners for conducting future studies in the similar area.

Various other factors included in another study (Javadi 2012) were the effect of anticipated risks, as well as service variables and customer mindset on return of products toward online shopping. The findings of the study state that fright of non-delivery of order, fear of losing money, and financial details have contradictory impact on attitude toward online shopping. Subjective norms have a positive effect on shopping behavior, which means the more people advocate e-buying to each other. Domain-specific uniqueness also has a positive effect on online shopping behavior (i.e., marketing experts should aim the online consumers segment for their efficacious marketing program). The study by Sharma (2014) found that the rising inflation rate is not affecting Indian online shopping performance. Companies are using

the Internet to market the products and communicate the information effectively, and are instantly getting the customer feedback which helps them to get stimulated turnover for the future.

Harris and Dennis (2011) in their study analyzed the implication of Facebook on social networking, stating that companies need to change their retail strategies considering the way that consumer purchasing decisions are made. Another study (Balgopal Singh 2014) pulled out various factors, namely access, courtesy, reliability, responsiveness, competence, communication, tangibles, assurance, empathy, credibility, security, understanding, ease of use, usefulness, trust, fulfillment, privacy, system availability, and enjoyment, which were used to find out first higher order constructs, namely e-service providers' skill-related factors, trust-related factors, consumer-related factors, e-service provider image-related factors, and technology-related factors. A study (Raman 2014) which was conducted among female shoppers revealed that lack of reliability toward online shopping increases the female consumers' inconvenience. A report survey based on Terron's (2013) data collected from 28,000 consumers in 56 countries revealed that deals, discounts, convenience, and easy comparison influence consumers to buy online. Vanishree (2012) concentrated on issues that relate to the privacy, perceived risks, and security of consumers while purchasing online. Special promotions, discounts, and deals given by e-tailing sites are quoted as the most motivating factor for customers to make a purchase online. The loss of privacy factor restricted women to shop online than men. The study results of Thakur (2015) reveals that the consumer innovativeness as a key construct to improve online retail adoption intention both directly and by its effective role in reducing the consumer risk perception of using an Internet channel for making purchase of physical goods.

Khanna (2015) has conducted a study during festival time and found that there are some positive influential factors (i.e., usefulness and convenience, look and feel, ease of payment, e-word of mouth, return on delivery, usability, mobility, social reach, social cause, and attractive deals) that influence online shopping in India. Negative factors were cost, technical concerns, payments, and logistics. Indian consumers pay special attention during festive season shopping. The study reveals that there is a strong influence on profit with relation to the festival deals, discounts, and offers. Bhatt (2012) found that convenience/attractiveness of website, service quality of website, and safety are the three authoritative factors which affect consumer attitude toward online shopping experiences. Another study revealed that convenience risk appeared to be the only factor considerably affecting Indian consumers' online purchases and when looking at male and female attitudes, there were dissimilar factors affecting male/female consumer's behaviors. Figure 1 depicts about the factors influencing online shopping behavior of millennial consumers based on theoretical model. Vaidehi (2014) studied the influencing

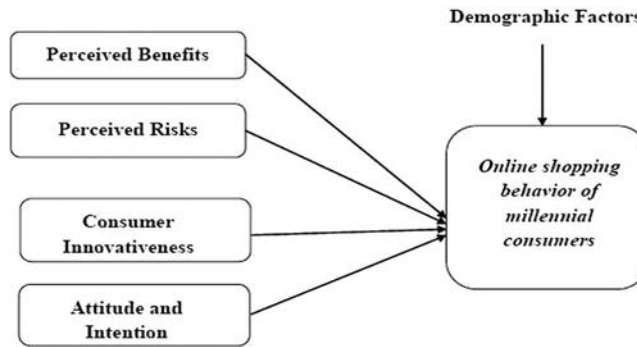


Figure 1. Conceptual framework: factors affecting online shopping behavior of millennial consumers.

factors for online shopping behavior among college students in India and found that availability, low price, promotions, comparison, convenience, customer service, perceived ease of use, attitude, time consciousness, trust, and variety seeking are the factors that influence online purchase.

Methodology

The current research is based on descriptive study that developed into an explanatory study since the research is about obtaining familiarity with consumer online purchase behavior. A deductive approach has been preferred for this study, which attempts to figure the theory first and preceding when the collected data are tested. Moreover, the deductive approach is exact for quantitative data and since this study contains the same, it is appropriate for this study.

The design of research is based on a descriptive study of the online shopping behavior of the millennial consumers. This is a cross-sectional study that involves a one-time interaction with groups of respondents. After a thorough, relevant, contemporary research review, the researchers identified the following conceptual framework, which consists of four factors that may induce online purchase behavior among millennial consumers: consumer innovativeness, perceived benefits, perceived risks, and attitude and intention. To integrate millennial consumer purchase behavior and preferences, a quantitative approach is used to study the results of the survey. Survey for this research is in the form of a questionnaire, which was designed as self-administered and published electronically with the help of the Internet. Within the specified time period of 2 months, 150 responses were received.

Data analysis and discussion

Demographic analysis

Table 1 depicts the demographic profile of the millennial consumers.

Table 1. Demographic details of students.

Age	(%)	Gender	(%)	Marital status	(%)	Educational qualification	(%)	Occupational status	(%)	Annual income	(%)
18–21	33.3	Male	51.3	Married	20.6	None	0.7	Student	35.3	No income	56.0
22–25	38.7	Female	48.7	Unmarried	78.7	X Std/Diploma	4.0	Professional	8.7	<1 lakh	10.7
26–29	16.7			Living together	0.7	XII	16.7	Govt. employee	14.7	1–3 lakhs	8.7
30–33	11.3					Bachelors	44.0	Private employee	10.0	3–5 lakhs	12.7
						Masters	34.7	Business	3.3	5–7 lakhs	8.7
								Homemaker	2.0	>7 lakhs	3.3
								Unemployed	26.0		
Total	100.0	Total	100	Total	100	Total	100.0	Total	100.0	Total	100.0

Factor analysis

Table 2 shows the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test (Field 2005, Chapters 11 and 12). The value of KMO should be greater than 0.5 if the sample is adequate. The KMO measure of sampling adequacy is 0.8783, which shows that the sample for this study is quite adequate.

From Table 3, it is clear that exploratory factor analysis extracted four factors, which accounted for 61.458% of variance in the data. The communalities of 19 items ranged from 0.494 to 0.737, indicating that a large amount of variance has been extracted by the factor solution. The four factors are F1: "quality and attractiveness," F2: "convenience, cost effective, and rich experience," F3: "website layout with comprehensive information and promised delivery," and F4: "innovative products and time saving."

The first factor (F1: quality and attractiveness) contains three components with high factor loadings (above 0.80), explains most of the variance (38.780%), and is considered an important determinant for predicting online shopping behavior of the customers.

The reliability results analysis reveals that Cronbach's alpha coefficients of the extracted factors ranged from 0.823 to 0.738. That is well above the minimum value of 0.60, which is considered acceptable as an indication of scale reliability (Hair et al. 2006). Thus, these values suggest good internal consistency of the factors. Finally, the Cronbach's alpha value for the factors determining online shopping behavior is 0.909 and specifies its high reliability.

Correlation analysis

The correlation analysis was conducted to study the relationship between the factors influencing online shopping behavior of customers and their satisfaction level. From Table 2, it can be implied that there exists a remarkable and exotic relationship between satisfaction level and factors influencing online shopping behavior, ranging from 0.366 to 0.698. Among the factors influencing online shopping behavior, "quality and attractiveness" has been the most influential, with a statistically significant relationship with the satisfaction level of customers. The results revealed that high quality and attractiveness of the site is the most attractive factor that influences customer satisfaction level, while purchasing online ($r = .653$) and the remaining factors

Table 2. KMO and Bartlett's test-factor analysis.

KMO measure of sampling adequacy		.878
Bartlett's test of sphericity	Approx. chi-square	1304.166
	Df	171
	Sig.	.000

Table 3. Rotated component matrix and communality values.

	Component				Communality
	1	2	3	4	
Quality and attractiveness	.853				.637
Attractiveness of the site	.617				.600
Shop online to get products that are not available in physical stores	.616				.506
I purchase online because of my prior online shopping experience	.534				.606
Convenience, cost effective, and rich experience		.791			.661
Shopping online makes me feel that I am valued and privileged by sharing comments, posting reviews, generous return policies, etc.					
Online shopping reduces the overall cost of purchase when compared to traditional shopping		.717			.606
It is easy to select and distinguish with other products and also compare prices while shopping online.		.670			.569
I believe that awareness about the website is necessary before making actual purchase		.562			.630
I can buy the products anytime 24 hours a day while shopping online		.478			.546
There are more discounts, deals and offers while shopping online		.473			.569
The website layout, design and user interface helps me in searching and choosing the right product while purchasing online (user friendly)			.860		.694
Detail information of product and its review is available			.758		.647
While shopping online, I favour purchases from a website that provides safety and security in transactions			.689		.737
I get on time/ accurate/complete/service promised delivery while shopping online			.672		.494
Certainty regarding the product shown online and the performance/experience of the product delivered are the same (Company being truthful about its offering)			.526		.569
Online shopping offers me innovative products which are new of its kind and not available elsewhere				.795	.728
I Prefer online shopping because I like to adopt innovations relatively earlier than other members of my social group.				.738	.722
I feel that it takes less time in evaluating and selecting a product while shopping online					
Cronbach alpha	.765	.823	.797	.677	.596
% of variance	38.780	10.149	6.624	5.906	
Cumulative%	38.780	48.928	55.552	61.458	

(i.e., convenience, cost effective and rich experience; website layout with comprehensive information and promised delivery; innovative products and time saving) showed moderate relationship with the online customer satisfaction.

As shown in Table 4, the Pearson correlation value of ($r = .653$) shows that there is a strong positive relationship between the quality of the product and attractiveness feature of the website with the satisfaction level of online customers. A positive, strong relationship between the attributes “convenience, cost effective, and rich experience” and online customer satisfaction with ($r = .586$). There also exists least contributing factors, namely “website layout with comprehensive information and promised delivery” with $r = .467$ and “innovative products and time saving” a positive moderate relationship with $r = .479$, which are less associated with the online customer satisfaction. From the results of correlation analysis, it can be interestingly concluded that online customers will get satisfied to a greater level if they find quality products in the website which has excellent features toward attracting the customers.

Regression analysis

Multiple $R = 0.711^a$, F value = 36.997, df (4,149), p value < .01, R square = 0.505

$$\hat{Y} = .561 + (0.122)x_1 + (.042)x_2 + (0.000)x_3 + (0.082) \times 4$$

where \hat{Y} is the estimated overall satisfaction of millennial customers toward online shopping.

The above equation reveals the factors affecting online shopping behavior of millennial customers in predicting the overall customer satisfaction. From the above Table 5, it is stated that on an average, if the factor (i.e., quality and attractiveness) changes by one unit, there will be 0.122 unit increase in the overall satisfaction level of online shopping customers. Finally, the conclusions of the t -test reveals that the calculated significance of the partial regression coefficient 1.947, 4.786, and 0.041 are valid at the 1% and 5% level, respectively. The multiple R is 0.711, which reveals that there is a relationship of 71.1% between the factors influencing online shopping behavior of millennial customers and overall customer satisfaction.

Table 4. Correlation between the factors influencing online shopping behavior and satisfaction level of customers.

	F1_shopping	F2_shopping	F3_shopping	F4_shopping	Overall I am satisfied with the online purchase
F1_shopping	1	0.698**	0.564**	0.405**	0.653**
F2_shopping	0.698**	1	0.621**	0.366**	0.586**
F3_shopping	0.564**	0.621**	1	0.446**	0.467**
F4_shopping	0.405**	0.366**	0.446**	1	0.479**
Overall I am satisfied with the online purchase	0.653**	0.586**	0.467**	0.479**	1

**Correlation is significant at the 0.01 level (2-tailed).

Table 5. Model using regression.

Model	Dependent variable	Predictor	Unstandardized beta	T	p value	F	R ²	R	Overall p value
1	Y = Customer satisfaction	Quality and attractiveness	.122	1.947	.000	36.997	.505	.711 ^a	.000 ^a
		Convenience, cost effective, and rich experience	.042	4.786	.015				
		Website layout with comprehensive information and promised delivery	.000	2.470	.968				
		Innovative products and time saving	.082	-.041	.001				

^aDependent variable: Overall I am satisfied with the online purchase.

The value of *R* square is 0.505, confirming that the explanatory factors explain only 50.5% of variation in the overall satisfaction of online shopping customers. The *f*-test shows that the explained difference was highly significant at the 1% and 5% levels. From the above coefficient table, it has been concluded that the factors influencing online shopping behavior of millennial customers (i.e., quality and attractiveness; convenience, cost effective, and rich experience; innovative products; time saving) are statistically significant in influencing the customer satisfaction level.

The “website layout with comprehensive information and promised delivery” factor is not very influential in building customer satisfaction, and the factors of “quality and attractiveness” and “convenience, cost effective, and rich experience” were the dominant factors that estimate overall satisfaction of online shopping customers.

Conclusion and implications

An exploration of factors influencing online shopping behavior and the customer satisfaction level among the millennium group (design, layout, and user interface) which helps in searching and choosing the right product while online shopping and the attractiveness of the site was proved using correlation which denotes that there is a positive moderate relationship between the website design, layout, and user interface which helps in searching and choosing the right product while online purchase.

The results reveal that on average, if the variables, namely, buying the products anytime online (24 hours), changes by one unit, there will be 0.197 unit increases in the overall satisfaction level of online shopping. Online shopping behavioral variables of millennial customers, namely the website layout, design, and user interface which helps in searching and selecting the right product while shopping online, preferable to purchase from a website that provides safety and security in transactions where these variables

having a relationship of 78.7% between online shopping behavioral variables of millennial customers with overall satisfaction of online shopping/purchase behavior of millennial customers. The regression result analysis reveals that factor, namely buying the products anytime online (24 hours), remains significant because of the known fact that mostly millennials who fall below the age group of 26–29 do not delay to make a purchase by analyzing, discussing, or examining a product of similar kind with friends, peers, and so on. The youths rather immediately surf the Internet to get to know as much as stuff about the product features, reviews, and videos, and get themselves clarified. In short, the millennial customers usually place an order online at the very first urge of using the product irrespective of time.

The study is limited to millennial consumers alone and does not cover people of the age group 40–55 who also contribute to sizeable number in online shopping. The study area also is confined to Chennai metro city alone. The research can be expanded to other geographical locations.

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