Research Article   **Open Access**

Determinants of Consumer Attitude towards E-Tailing in Indian Retail Sector: A Study on Factors of Technological Acceptance Model (TAM)

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Abstract

This research papers studies and investigate the determinants of consumers attitude affecting the E-purchase in retail sector. This current study developed the theoretical model based on Technological acceptance model (TAM) by incorporating the variables such as perceived usefulness, perceived ease of use, compatibility, privacy, security, capability (Self-efficacy) and trust. The study collected the data from a sample of 374 users of E-tailing. The data collection tool was a structured questionnaire. The reliability of the tool was confirmed by Cronbach's α coefficient which was above the threshold (0.7) for all variables. The data were analyzed by correlation and regression to determine the relationship between dependent variables and independent variables. The results revealed that Perceived Usefulness, Ability to use (Self Efficacy), Relationship building and Trust have a positive effect on use of internet for E-purchase (E-tailing) whereas privacy and security have negative relation with use of internet for E-purchase (E-tailing). However, the value of impact varies slightly from variable to variable. Therefore retailing companies should build and devise trust worthy strategies that would reduce insecurity in consumers and more and more consumers can be attracted to e-purchase.

Introduction

Retail Industry has been always a proponent of diversity. Internet technology coming in to dominance a new element of diversity has also been added to E-tailing or online retailing.

Innovation and development are becoming sources to gain a competitive advantage in the strong competitive markets. During last decades the retail industry has witnessed many innovations in processes and procedure.

With growth of internet and globalization of markets, retail sector has become more competitive. Retail marketing activities are affected by the inventing of Internet Technology and this internet is revolutionizing in commerce and trade.

In current business scenario, companies are using Information Technology to reach customers and provide a part of contact 24 x 7.

Our study aims to determine the attitudes of individuals concerning online shopping; therefore, it is important to discuss the forms risk can take in an e-commerce environment. To begin with, products can be classified as either search products or experience products, where the latter requires an "experience" with the product, such as a car or clothing.

E-Commerce (Internet Marketing/Web marketing and online marketing is defined as the promotion of products through internet whereas E-tailing is selling of goods and services through internet. Wang et al., [1] E-tailing is selling of goods and services to consumer market via internet. E-tailing is retailing conducted online over the internet. The customers of E-tailing are those consumers who are highly aware of issues in e-tailing and are ready to put their money where they have.

Companies spent huge amount to offer online selling the consumers, however, the success of E-tailing lie on consumer use of internet, alternate channel of distribution and acceptance of offer. Therefore for the wide acceptance it is important to evaluate the key factors which lead to customer acceptance or rejection. In Indian context the very limited literature is available and none of them has attempted to study the customer attitude towards E-Tailing. Generally Literate and young consumers represent the prospective and potential segment for E-Tailing. So it is important to determine and evaluate the issues and factors which have impact on E-Tailing. The current study would devise the strategies to focus and target this segment of consumers. Therefore this study will be filling up the gape by determining and investigating the key issues of consumer who have concern with E-tailing.

Technological Acceptance Model (TAM) has been validated as power model for predicting individual acceptance of information system [2,3].

TAM was designed and developed to understand user's acceptance of information technology by workers on their job in initial stages, however, later it was applied to all forms of technology acceptance with a strong empirical support [4,5].

The main proposition of TAM is that users acceptance of new technology is determined by his voluntary intention to use that technology. As Davis et al., [3] argued that intention is function of attitude, usefulness and ease of use. TAM is most widely used theoretical model for exploring the determinants that influence individual acceptance behavior of information system. Hence current study makes use of TAM in E-tailing. However it has its limitation in use as it cannot explain some influencing variables. This study will make use of other

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variables i.e., additional variables will be introduced in TAM. Other researches have also introduced other variables in to frame work of TAM for its improvement and specificity [5,6].

In the current study the attitude towards E-tailing is dependent variable which is in accordance with final conception of TAM [2]. Actually it is the behavior of a consumer towards the online shopping (E-tailing).

Review of Literature

E-commerce success in the business-to-consumer area, is determined in part by whether consumers trust sellers and products they cannot see or touch, and electronic systems with which they have no previous experience.

TAM has been validated as a powerful and parsimonious model for predicting individual acceptance of information systems [2,3]. TAM was initially developed to understand users' acceptance of information technology usage on job; however, later TAM was profusely applied to all forms of technology acceptance with wealthy empirical support [4,5]. The main proposition of TAM is that a user's acceptance of new technology is determined by his voluntary intention to use that technology. Further, Davis argues that intention is a function of attitude and vice versaTAM is most widely used theoretical model for explaining the factors that influence individual acceptance behavior of information systems; hence, current study extends TAM in the E-tailing context. The salient limitation of TAM is that it is silent in explaining influence of other variables in behaviour prediction. Many researchers have recognized the need to introduce additional variables into the framework of TAM for improvement of its specificity and explanatory power [3,5,7,8]. Hence, through the survey of literature, the researchers have identified important additional variables in context of E-tailing prediction incorporated into the frame of TAM. The variables included in the proposed research model are Ability to use, Trust, Relationship building, Perceived Ease of use, Perceived Usefulness, Privacy, Security, Attitude (Figure 1). In the current research, attitude towards E-tailing is treated as dependent variable which is in accordance with the final conception of TAM [3]. The current study involves attitude towards E-tailing is treated as dependent variable which is in accordance with conception of TAM [3]. It is generally argued that attitude towards E-tailing may lead to actual behavior of a consumer and attitude can be a dependent variable measuring the attitude [9]; therefore in the current study attitude is a determinant of measuring the behavior. The attitude is the function of variables used in the study. Figure 1 represents the proposed model of current research.

Framework and Hypothesis Development

The current study involves the use of Technology Acceptance Model (TAM). The Model analyses the relationship between the independent variables and independent variable i.e. Relationship between attitude and intention to use online system for purchase. TAM has been used by various researchers in different contexts.. The theoretical and frame work for current study is as shown in Figure 1

Hypothesis of the Study

H1: There is positive significant relationship between consumer's attitude towards use of E-tailing and its perceived usefulness

H2: There is positive significant relationship between consumer's attitude towards use of E-tailing and the belief about its perceived ease of use

H4: There is positive significant relationship between

consumer's attitude towards use of E-tailing and privacy offered by the company

H5: There is positive significant relationship between consumers attitude towards use of E-tailing belief about its security

H6: There is positive significant relationship between consumers attitude towards use of E-tailing belief about once capability (Self-efficacy)

H7: There is positive significant relationship between consumer's attitude towards use of E-tailing and trust.

Research Design and Methodology

Data collection methods and procedure

A primary survey of respondents was undertaken from the higher education institutes of the Kashmir Valley in Jammu And Kashmir State. A structured questionnaire was designed to collect the primary data from the respondents. The questionnaire was developed by identifying the variables based on literature review.

Questionnaire was administered among the students and employees of the Kashmir University and Islamic University of Science and technology. This sample was considered ideal for the study because they are widely users of internet. The sampling method adopted was convene and random sampling as it an exploratory research. The other reason for this sampling was that it is fastest and most efficient to collect the information needed.

A questionnaire was used to collect the data required for the study. The questionnaire elicited the information about the demography of the respondents and the other dependent and independent variables of the study. Respondents were asked to rate their opinion using Likert's 5 point scale ranging from 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=strongly agree. For measurement of intention to use internet in E-tailing, Likert's 5 point scale ranging from 1=Very unlikely, 2=Unlikely, 3=neutral, 4=Likely and 5=Very likely was adopted.

A questionnaire was used to gather the information required for the study. The questionnaire elicited information about demographic, perceived usefulness, perceived ease of use and intention to use. The questionnaire was developed based on the researches by Davis [2], I. Bashir et al., [10] Basyir [11].
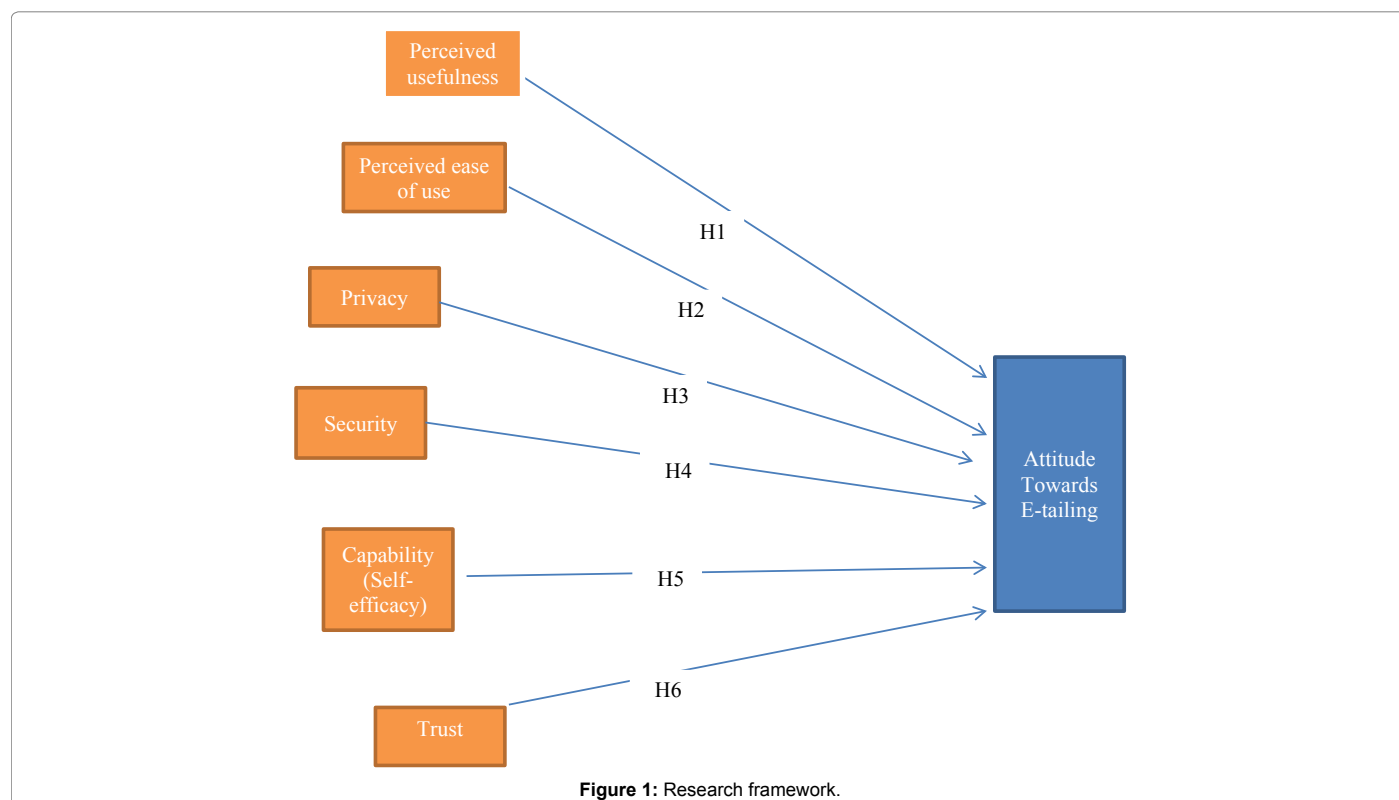
The total number of respondents was 400 respondent 200 hundred from each university. The respondents were students, faculty and lower level administrators. The questionnaire was personally distributed among them. After completion of questionnaire, then the questionnaire were returned back personally. But out of 400,374 were returned back and 42 were incomplete. So total number of questionnaire fit for the analysis were 342.

Data Analysis and Interpretation

Demography of the respondents

The demographic profile of respondents is presented in Table 1 who participated in the survey. Out of 342 respondents 79.24% were males and 20.76% were females. The data were collected from the age group of the respondents as 9.35% were below age group of 20 years, 16.37% were 21-30, and 49.93% were between age group of 32-40, 18.42% respondents were between the age group of 41-50 years and 3.80% were age group of above 50 years. The married percentile of respondents was 48.24 and unmarried percentile of respondents was 51.76.

The majority of the respondents were master in education

Figure 1: Research framework.

Measure	Value	Frequency	Percentage	Cumulative (%)
Gender	Male	271	79.24	79.24
	Female	71	20.76	100
Age	<20 Years	32	9.35	9.35
	21-30 Years	56	16.37	25.72
	31-40 Years	140	49.93	75.65
	41-50 Years	63	18.42	94.07
	51> Years	13	3.80	100
Marital status	Married	165	48.24	48.24
	Unmarried	177	51.76	100
Position	Faculty	103	30.11	30.11
	Administration/ clerical	44	12.86	42.87
	Student	195	57.01	100
Education Qualification	Doctorate	109	31.81	31.81
	Masters	178	52.04	83.85
	Bachelors	36	10.52	94.37
	Below bachelors	19	5.55	100
Users and Non-users of Internet	Internet users	307	89.76	89.76
	Non-Internet users	35	10.24	100
Users and Non users of E-tailing	E- tailing users	137	40.05	40.05
	Non-E-tailing users	205	59.95	100

Table 1: Demography of the Respondents.

(52%), 31% were doctorate because almost all faculty members were doctorates. 10.52 respondents were graduates and 5.55% respondents were below graduation. As for as position of the respondent is concerned 30.11% respondents were Faculty members, 12.86% were Administration/Clerical in position and 57.01 were students. As for as the use of internet is concerned 89.76% respondents were users of internet and 10.24% were Non-I users of internet. In total among

the respondents 40.05% were E- tailing users while as 59.95% were non-users of E-Tailing.

Reliability and Convergent Validity

The data have been analyzed by using the SPSS version 20. The adequacy of the instrument has been evaluated by research by fulfilling the criteria of internal consistency, convergent validity and discriminant validity. Table-2 displays the results of reliability (Cronbach's α) and validity, Composite reliability and Average variance Extracted of all constructs. The Cronbach's α and composite reliability ensures the reliability of the scale. The values of α coefficient range from 0.7902 to 0.9801 which are above the standard value 0.7.i.e., common threshold value [7]. Therefore, the measurement shows acceptable reliability.

Also, average variance extracted (AVE) was calculated for each construct and is more than the given threshold value 0.5 [12,13]. More ever the factor loading for all the items of the scale is above the given standard value 0.7 [12]. Convergent validity has been verified by analyzing the factor loading and their significance. The significance in this study is higher than 0.7 and AVE is also above the threshold, it is therefore clear that the measurement instrument is good. Table 2 also shows the t-value statistics. They are all significant (p<0.001).

Correlation Analysis

r Can range from 1, i.e., perfect positive correlation where the variables change value in the same direction as each other, to -1, i.e., perfect negative correlation where (say y) decreases linearly as (say x) increases. If the value were less than 0.5 there would only be a very weak relationship between the variables. Also if the value of correlation exceeds 0.8, it signifies milticollinearity issues in the instrument. Since the value of all variables lie within the range between 0.3841-0.7842.Therefore there are no multicollinearity issues

Construct	Indicator	Loading	T-value	Cronbach's α	Composite Reliability (CR)	Average Variance Extracted (AVE)
Perceived Usefulness	U1	0.8702	13.3210	0.8901	0.9210	0.8960
	U2	0.9421	11.3023			
	U3	0.7906	12.0120			
	U4	0.8760	11.7129			
	U5	0.8076	35.09812			
Ability to use	AU1	0.7609	151.0544	0.9801	0.8901	0.7624
	AU2	0.8708	17.5421			
	AU3	0.9430	47.5420			
	AU4	0.8934	17.4417			
	AU5	0.8021	51.5431			
Relationship[p building	RB1	0.9110	16.7612	0.7902	0.9512	0.8540
	RB2	0.7207	23.5417			
	RB3	0.7901	112.05412			
	RB4	0.8709	16.2367			
	RB5	0.9540	16.4256			
Trust	T1	0.8064	23.7634	0.8931	0.9341	0.7682
	T2	0.9640	12.0763			
	T3	0.7985	32.4316			
	T4	0.9870	17.6531			
	T5	0.7850	22.6542			
Ease of use	EU1	0.8497	34.4561	0.9621	0.9413	0.7190
	EU2	0.7689	17.7348			
	EU3	0.9654	14.7482			
	EU4	0.8760	12.8652			
	EU5	0.9823	12.0943			
Privacy	PR1	0.7890	120.4017	0.8743	0.9252	0.8529
	PR2	0.8906	18.6543			
	PR3	0.9120	60.4320			
	PR4	0.8790	31.4328			
Security	S1	0.9801	17.2853	0.8760	0.9167	0.8512
	S2	0.6791	18.5431			
	S3	0.9013	19.5437			
	S4	0.7890	13.8210			
	S5	0.7860	35.5120			
Attitude	AT1	0.8690	42.5438	0.8607	0.8951	0.7901
	AT2	0.8743	35.5432			
	AT3	0.7290	15.6540			
	AT4	0.8120	18.6431			
	AT5	0.9032				

Table 2: Reliability and Validity.

in the variables of the instrument. The current study uses the Pearson correlation in order to examine the relation between variables. Table 3 presents the correlation statistics of variables. So the variables are suitable for regression analysis.

Regression Analysis

The coefficient of determination (R^2) is found to be 0.692, which represents 69.2% variance can be explained by the seven independent variables for E-tailing. Therefore this indicates that the effect of this study is very large and the study comprises most of the factors affecting E-tailing. The F-value=88.20 for the give proposed model is suitable at (p=0.000), it means that at the 1% level (p<10.01). Hence it signifies that the overall model is fit and inferences can be drawn from it statistically.

The regression results show that perceived Usefulness (β=0.5431, p<0.05), Ability to Use (Self-Efficacy),(β=0.2410, p<0.05), Relationship building (β=0.3154, p<0.05), Trust (0.4171, p<0.05). Perceived Ease of use (0.4310, p<0.05), Privacy (-0.0123, p<0.05), Security (-0.0014, p<0.05) and Attitude (0.3210, p<0.05) are found to have a significant and positive effect on consumers intention to use E-tailing. Therefore all hypotheses are supported (Table 4).

Discussions on Hypotheses Testing

The main purpose of the study is to study and analyses the consumer's attitude towards use of E-tailing. The E-tailing is the retailing on internet. This study validated the proposed theoretical model empirically. All the hypothetical relationships were validated and tested by using the reliability test, correlation and regression analysis. The significant effect on consumer's attitude towards E-tailing was observed in Ability to use, Relationship building, Trust, Ease of use, Usefulness, Privacy and Security. The discussion of these variables and findings is in following section.

	Usefulness	Ability to use	Relationship [p building	Trust	Ease of use	Privacy	Security	Attitude
Perceived Usefulness	1.000							
Ability to use	0.3425	1.000						
Relationship building	0.2832	0.6537	1.000					
Trust	0.3424	0.4218	0.4327	1.000				
Perceived Ease of use	0.4372	0.5418	0.5210	0.5418	1.000			
Privacy	-0.5841	0.6328	0.6701	0.6732	0.7642	1.000		
Security	-0.6491	0.6541	0.7516	0.5210	0.6235	0.6527	1.000	
Attitude	-0.7842	0.7418	0.7260	0.6245	0.5424	0.6723	0.4806	1.000

Note: *Correlation is significant at the 0.01 level (2-tailed), **Correlation is significant at 0.05 level (2-tailed)

Table 3: Correlation Analysis.

Construct	β	t-value	Sig.	Hypotheses	Result
Perceived Usefulness	0.5431	8.32	0.0127	H1	Supported
Ability to use(Self Efficacy)	0.2410*	6.43	0.04210	H2	Supported
Relationship building	0.3154*	10.21	0.0320	H3	Supported
Trust	0.4171*	9.43	0.000	H4	Supported
Ease of use	0.4310*	12.65	0.0532	H5	Supported
Privacy	-0.0123	13.34	0.0043	H6	Not-Supported
Security	-0.0014	11.43	0.0011	H7	Not-Supported

Note: β Values represents the standardized coefficients. * Relationship is positive but not too strong, as the β value is less than 5.

Table 4: Regression Analysis.

Perceived usefulness

H1: There is positive significant relationship between consumer's attitude towards use of E-tailing and its perceived usefulness.

The finding and the hypotheses testing revealed that perceived usefulness has significance on consumers attitude towards E-tailing. (β=0.5431, p<0.05). Therefore H1 is accepted. Also the impact of perceived usefulness of consumer's attitude towards E-tailing is strong as compared to other factors except security. The possible reasons for this can be that people working in advance institutes have availability of hi-tech facilities. Therefore it implies that E-tailing can be easily adopted by consumers if they perceive it more useful and prompt channel than others channels. Thus companies should widen the scope of their services offered through internet. The companies should offer the incentive to E-tailing customer as it can prove cost cutting for them. Also companies should launch the campaigns for awareness the people about the advantages of E-tailing.

Perceived ease of use

H2: There is positive significant relationship between consumer's attitude towards use of E-tailing and the belief about its ease of use.

The finding of the study confirms that the perceived ease of use has also significant positive impact on consumer's attitude towards E-tailing. (0.4310, p<0.05), therefore H2 is accepted. This is consistent with findings of Fornell [13], Amin [14]. The reasons for this can be that the most of the consumers are educated and are users of internet. Hence perceive the E-tailing as simple and time saving. The companies should widen the scope of E-tailing by making it so easy so that a layman can make purchase through E-tailing.

Privacy and security

There is positive significant relationship between consumer's attitude towards use of E-tailing and privacy offered by the company and security. The findings of the study confirm that privacy (-0.0123, p<0.05) and Security (-0.0014, p<0.05) has negative impact on consumer's attitude towards E-tailing therefore H3 and H4 are not

supporting, hence rejected. Therefore the Privacy and security factors are the key inhibitors of using E-tailing for making a purchase.

Self-efficacy

There is positive significant relationship between consumers attitude towards use of E-tailing belief about once capability (Self-efficacy). The result confirm that the self-efficacy (β=0.2410, p<0.05) has a little impact on E-tailing. Therefore H6 is supporting hence accepted but relationship is moderate. The results resemble with previous researches of Bandura [15-21], Davis et al., [3], Guriting and Ndubisi [22] who had done their research on E-tailing on banking sector. It indicates that the consumer have ability to make purchase through internet but companies need to make it at ease and build self-confidence in them through by providing guidelines and instruction on line and through Advertising.

Trust

There is positive significant relationship between consumer's attitude towards use of E-tailing and trust. The results confirm that the relationship between consumer's attitude towards use of E-tailing and trust (0.4171, p<0.05) is moderate. Therefore H7 is supporting and hence accepted. The companies need to develop the strategies so that consumers may feel full faith and trust in them. It is a general perception that the business in who universe is based on faith. If you are trustful you will be successful in your business.

Conclusion

The main aim of this research is to study and investigate the determinants of consumers affecting the E-purchase in retail sector. The current study incorporated the seven variables that would have impact on E-tailing. These variables are perceived usefulness, perceived ease of use, privacy, security, capability (Self-efficacy) and trust. The results revealed that there is significant impact of determinants of consumer attitude towards E-tailing. A structured questionnaire was administered to respondents through convenient sampling to collect data and factor analysis, correlation and regression analysis was employed to analyze

the data. The companies must understand the attitude of their customers and must go for segmentation accordingly. They must make strategies in order to attract the potential customer toward E-tailing taking their other variables like demographic variables in consideration. This study implies that companies should adopt multilevel segmentation by which they can change educated and high income group non-users of inter net in to users of internet. The study also presented various implications for researchers and companies offering the internet facilities.

Research Limitation and Future Research

The first limitation of this study is that the sample size was low and only educated and employed respondents were taken for the study. The study was taken in one state of the country. Therefore it make limits the generalization of the study. The study has taken few variables in to consideration; it would have taken other variables also. This makes its scope for future research and it needs to test the effect of other variables of consumer's attitude towards E-tailing. This study will not make an academic contribution to the field retail marketing possible strategies to improve in E-tailing and review their technologies.

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