

Leveraging Factors for Online Shopping- A Study in an Emerging Economy

Aindrila Biswas¹
Jagjeet Ajmani¹
Mousumi Roy¹

Abstract

Internet has changed the consumption habits and means of satisfying demands for comfort. Online shopping is common in the developed world than it was about 5 years ago but it is not the same in India for its own set of reasons. There is significant interest among marketers and academics to understand how to segment online consumers to better fulfill their needs. The paper tries to explore the marketing strategies to meet the demand of online shoppers, consumer attitude towards online shopping and specifically studying the factors influencing consumer behaviour to shop online. The sample for the study comprised of respondents selected on from a central university in an emerging economy. The findings suggest the influence of demographics and availability of payment options and their impact on online shopping. The managerial implications of the study have been discussed.

Keywords: Online shopping, risk perception, perceived ease-of-use, perceived usefulness

1. Introduction

The trend of e-commerce has been increased rapidly in recent years with the development of internet and due to easy accessibility of internet usage. Easy access to internet has driven consumers to shop online. According to University of California, Los Angeles (UCLA) communication policy (2001), online shopping is the third most popular activity on internet after email and web browsing. Globally more than 627 million people have been engaged in online shopping; world's biggest online shoppers include Germans and British. Books, airline tickets, apparels, accessories and electronic products are the most popular item purchased on the internet (ACNielsen Report on Global consumers attitude towards online shopping, 2007). Online shopping is used as a medium for communication and electronic commerce to increase and improve in value, quality and attractiveness of delivering customer benefits and better satisfaction. Risk of credit card fraud, lack of privacy, non-delivery risk, lack of quality of goods and services often deter consumers' from resorting to online shopping. Concerned authorities are devising policies to minimize the risk involved in online shopping. Fraud-free electronic shopping was introduced in UK in the early 1995 and after two years in Europe and Singapore secured electronic transfer (SET) was introduced. Online shopping offers wider choice with low transaction cost.

Consumers' attitude towards online shopping refers to their psychological state in terms of making purchase over internet. The process of online buying behaviour consists of five steps and it is similar to traditional shopping behaviour.

¹Department of Management Studies, National Institute of Technology, Durgapur, India

According to the survey among American students it was concluded that internet knowledge, income and education level are powerful predictors of internet purchase among university students. An increasing number and variety of firms and organization are exploiting and creating business opportunities on the internet. Fierce competitions among online sellers have forced them to gain the competitive edge in the field of virtual shopping. In order to get the competitive edge in the market, the marketers need to know the consumer behaviour in the field of online shopping. So it is important to analyse and identify the factors which influence the consumers to shop online in order to capture the demands of consumers. The main theme of study is to assess the factors that influence the consumers' attitude and behaviour towards online shopping. While it is important to investigate the motivation behind consumer purchasing, it is equally important to find as how the consumers form attitudes and behaviors towards online buying because consumer attitude towards purchasing online is a conspicuous factor affecting actual buying behavior. All the needs are strongly affected by different Situational factors which can be cognitive involvement (indicates one's personal relevance with the Internet as a medium of shopping). More cognitively involved persons usually believe that the Internet can also raise their shopping efficiency. Affective involvement includes affective factors, such as hedonic and symbolic expectations, can also influence the personal relevance of a shopping medium. Internet users can be categorized into two Internet Shoppers and Internet Browsers, Internet shoppers are the people who shop online whereas internet browsers are the people who just browse the internet other than shopping purpose.

2. Literature Review

Study	Reference
Theory of Planned behavior was applied to assess online shopping motivation and the process of decision-making.	Ajzen(1991)
Technology Acceptance Model had been applied to ascertain users' acceptance towards a particular system as well as attitude towards online shopping.	Davis et.al, (1989)
Motives behind web shopping consist of time efficiency, availability of shopping 24*7.	Karayanni (2003)
Online shopping constitutes a service innovation in retailing, enabling consumers to order goods from home which are delivered at their door step.	Pechtl(2003)
Electronic commerce comprising of online shopping is the most important part of the internet.	Anil (2000)
Consumers' prefer online shopping due to high value added service and comparative pricing.	Brown et.al (2003)
Internet retailing is growing at an unprecedented rate even in the developing countries.	Oinas (2002)
TAM has been applied to assess the various facets of online shopping behavior.	Basyir (2000)

2.1. Theory of Consumer Buying Behaviour Process

In the field of Consumer behavior research the classical model of consumer buying behaviour is of utmost importance.

Consumer decision process carries five stages, starting with Problem recognition and following Information search, Evaluation of alternatives, Purchase decision and finally Post Purchase behavior. Problem recognition starts with the perception of need and moves towards information search where consumer uses internal and external sources to analyze given information and use that information in the next step of evaluation of alternatives. While evaluating alternatives one assessing values of the products by giving weights. After evaluation of alternatives consumers move towards purchase decision where they may encounter three possibilities, from whom to buy, when to buy and do not buy. Once they have actually made the purchase now it comes to Post purchase behavior, whether they are satisfied or dissatisfied with the purchase.



Fig.1

2.2. Theories of Planned Behaviour (TPB)

Theory of planned behavior proposed by Icek Ajzen (1991) actually provides a link between attitude and behavior. Consumer action is guided by three considerations- Behavioral Beliefs, Normative Beliefs and Control Beliefs. TPB is an extension of theory of reasoned action which proposed that a given behavior is influenced by the certain factors and these factors are assumed to be captured by the intention words. These intentions indicate as how one is willing to put the effort in order to perform a given behavior. Perceived behavioral control actually moves towards the actual behavior by influencing the intention.

Behavioral belief: It's about one's belief about the final outcome of particular behaviour.

Attitude toward behavior: It is about personal performance of individual's positive or negative evaluation. It is considered as personal or emotional factor that can affect in a positive or negative manner.

Normative belief: It is about individual's particular behavior that can be influenced by other important actors. These actors can be your friends, family members, co-workers etc.

Subjective norm: Its concerns with social normative pressures or other belief that can affect one's behavior whether a person should perform the behavior or not. Subjective influence is basically the social influence factor.

Perceived behavioral control: An individual's perceived ease or difficulty of performing the particular behavior. A person's way of performing a particular behavior with some difficult or performing it easily.

Control beliefs: Person's beliefs about the presence of circumstances that may help or prevent performance of the behavior.

2.3. Technology Acceptance Model (TAM)

Technology acceptance model (TAM) is an extension to Theory of reasoned action proposed by TAM is developed by Fred Davis and Richard Bagozi.

TAM is basically information system theory that covers how a user accepts and uses a technology. The model deals with the acceptance of information technology. The external factors that influence users to make a decision are- Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). The degree to which a person believes that using a particular system would enhance his or her job performance is Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) is the degree to which a person believes that using a particular system would be free from effort. The main purpose of the TAM is to explain how a user accepts a specific technology. TAM has been applied to measure the impact of perceived web-security, perceived privacy, perceived usefulness and perceived ease of use on online transaction intentions (Teck, 2002). TAM was applied to assess owners/managers intention to adopt web-based supply chain management (Choong, 2003).

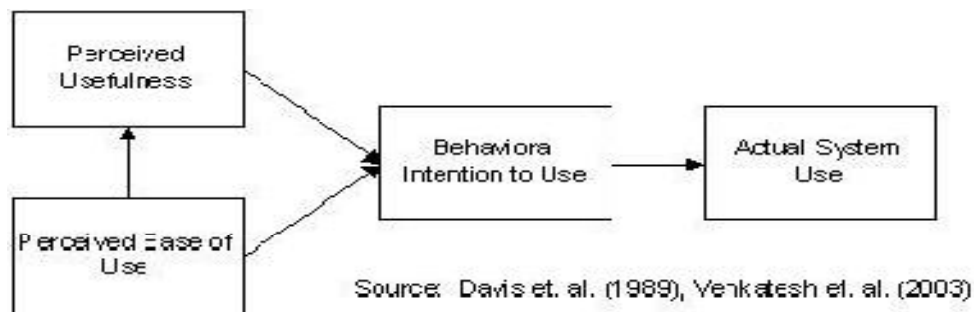


Fig 2

In the Fig. 2PU and PEOU are the external factors that influence the behavior intention to use and then finally it moves towards the actual system use.

3. Research Methodology

3.1. Data Collection

Data was collected from undergraduate and postgraduate students from a Central University at Durgapur through the distribution of structured questionnaires. Many of these students had work experience with extensive purchase habits. University students form a socially and environmentally aware segment of the society (Fernandez- Manzanal et al., 2007). The total valid sample for the research was 150 students. Sample sizes larger than 30 and less than 500 is appropriate for most research (Sekaran, 2003).

3.2. Measurement Instrument

Based on previous research on theory of consumer buying behavior process; theory of planned behavior and technology acceptance model a questionnaire was formulated to assess consumers' choice behavior for online shopping. The responses were measured across 5 Point Likert Scale (1=Strongly Disagree, 2=Disagree, 3=neutral, 4=agree, 5=Strongly Agree). Factor analysis and cross-tabulation was performed to test the validity and reliability. To test the reliability, the questionnaires' cronbach's alpha was assessed as 0.70, which is considered quite high. The analysis of the data was performed with the help of Statistical Package for Social Sciences (SPSS) version 20.0.

Factor analysis is a dimension reduction technique used for identification of smaller number of factors that explain most of the variance observed over a larger number of manifested variables, giving a deeper insight into the data structure (Batagelj, 2010). Factor analysis is performed in three stages – determination of the variables and analysis of their correlation; prognosticating the number of factors and defining the content of factors (Bastic, 2006).

4. Analysis

The sample for the study consisted of 44% male and 56% female. 39.3%, 35.3% and 25.3% of the respondents had availed online shopping within a time frame of less than a month ago, more than six months ago and about a year ago respectively. The consumers' most preferable mode of payment online being cash-on-delivery (56%) followed by through bank transfer (37.4%). A small fragment prefers payment through credit cards. Search engine (19.3%), TV advertisements (15.3%) and advertisement on print media (18%) being the most significant sources of information helping consumers' to decide which sites to resort to for online-shopping. Personal recommendation (14.7%) has the least significant impact.

The appropriateness of factor analysis can be measured using Barlett's test of sphericity and Keiser-Meyer-Olkin (Table 1). The KMO analysis value of 0.631, being greater than 0.60, is considered acceptable for conducting factor analysis (ULCA, 2011). A significant (<0.05) Barlett's test of sphericity suggests that the resulting matrix is not an identity matrix (Field, 2005). Both tests being feasible allow further analysis.

Table 2 shows the results of communalities where all the communalities are higher than 0.50 indicates the significance of each variable. Table 3 shows the total variance explained being 81.41% by the seven factors. A rotated component matrix shows the variables that had high factor weights for the seven identified factors (Table 4).

Based on the content definition of factors' principle and factor weights the following seven factors were identified and redefined: F1 renamed as 'risk perception with online shopping'; followed by F2 as 'fear of high post purchase dissonance', F3 as 'perceived usefulness', F4 as 'perceived ease of use', F5 as 'information quality', F6 as 'product quality' and F7 as 'pricing'.

5. Discussion

The results identified seven factors that have the highest influence on consumers' online shopping behavior. The risk perception towards online shopping (F1) was determined by consumers' statements that express the hesitation to use credit cards while shopping online, or questioning the credibility of the selling sites. These variables indicate consumers' negative predisposition to online shopping. Availability of single payment option plan online via only credit cards may deter online purchase decisions. Therefore, in order to facilitate online shopping the credibility of online shops should be highly advertised in print or electronic or social media. Even multiple payment options should be provided to the subscribers. F2 shows that consumers' fear of getting exploited or panic that post purchase dissonance will be high if the product supplied is not as per specification. Problem of repair, maintenance guidance, replacement and resultant high cost often enhances the consumers' fear of suffering post-purchase dissonance from online purchase. The third factor highlights consumer innovativeness to shop online and finding interest in resorting to new ideas of shopping. The convenience associated with the same and saving in cost, time and energy may motivate consumers' to shop online. The fourth factor emphasize on the ease of using online shopping and the wide range of product offerings. The fifth and sixth factor encompasses the authenticity of information about products and services available online as well as the quality of product offerings. The seventh factor resorts to the value for money of online shopping.

The survey confirms that online shopping behavior is determined by an array of factors. The results show that the factors are joined by risk perception, functional value and utility perception. Consumers' fear of getting exploited online (F2) or finding making financial disclosures online risky (F1) refers to consumers' overall prejudice about threats online. Consideration about product quality (F6) or reliance on the information provided on online shopping sites (F5) or finding online transactions cheaper, attractive (F7) highlights consumers' sensitivity towards value maximization by buying products online only when offered at attractive rates.

Factors F3 and F4 adopted from TAM (Technology Acceptance Model) shows that consumers' will resort to online shopping if the process is user friendly and if the perceived benefits of online shopping are higher than that of traditional ways of shopping.

6. Conclusion

Marketers should resort to promotion of online shopping sites by highlighting attractive offers which can optimize the value for money. Resorting to celebrity endorsements of the online shopping sites may reduce the risk perception of online shopping from consumers' mind. Multiple payment options especially cash-on-delivery should be made available to reduce the fear of suffering from loss. A toll free helpline service may be provided to consumers' for easy repair, replacement of products. Guarantees and warranties may also be used to reduce the fear of post-purchase dissonance.

Particularly the middle-aged consumers' in developing economies are still inapprehensive towards online shopping. Thus making the interface of online shopping sites user friendly as well as if the processing could be made less tedious then the fragment of non-tech-savvy generation could be swayed towards online shopping.

Online shopping is still in its growth stage mostly in the developing nations. Aggressive promotion by marketers on all medium emphasizing on both the financial and non-financial aspects of shopping online, may help in the augmentation of such avenues for shopping, especially with changes in consumption pattern and lifestyle in future.

References

- Anil, S. (2000). Electronic commerce law in Asia: legal, regulatory and policy issues :the proceedings of international conference on electronic commerce,emerging trends in e-commerce, Kuala Lumpur, Malaysia, November, Multi Media University
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211
- Bastic, M., (2006). *Research Methods*. University of Maribor, Faculty of Economics and Business, Maribor, Slovenia
- Basyir, A. (2000). A Model of Consumer's Acceptance of Internet Shopping MBA Thesis, School OfManagement, Universiti Sains Malaysia, Penang
- Batagelj, V., (2010). Factor analysis: study material for postgraduate study of Statistics. Faculty of Mathematics and Physics, University of Ljubljana
- Brown, M., Pope, N., & Voges, K. (2003). Buying or browsing: an exploration of shopping orientation and online purchase intention. *European Journal of Marketing*, 37,1666-1684
- Choong, L. S. (2000). An Assessment of Owners/Managers Intention to Adopt Web-Based Supply Chain Management (SCM) System in Small Medium Industry (SMI) Organizations, MBA Thesis, School OfManagement, Universiti Sains Malaysia, Penang
- Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: a comparison of two theoretical model. *Management Science*, 35, 982-1003
- Fernandez-Manzanal, R., Rodriguez-Barreiro, L., & Carrasquer, J., (2007).Evaluation of environmental attitudes: analysis and results of a scale applied to university students. *Science Education*, 91(6), 988-1009
- Karyanni, D.A. (2003). Web-shopper and non-shoppers: compatibility, relative advantage and demographics. *European Business Review*, 15,141-152
- Oinas, P. (2002). Towards understanding network relationships in online retailing. *International review of Retail, Distribution and Consumer Research*, 319-355
- Pechtl, H. (2003). Adoption of online shopping by German grocery shoppers. *The International Review of Retail, Distribution and Consumer Research*, 145-159
- Sekaran, U., (2003). *Research Methods for Business*, 4th(Ed.). John Wiley & Sons, Inc. New York
- Teck, T.K. (2002). The Impact of Perceived Web Security, Perceived Privacy Loss, Perceived Usefulness and Perceived Ease of Use on the Web-Based Online Transaction Intent, MBA Thesis, School Of Management, Universiti Sains Malaysia, Penang
- UCLA, (2011). Principal Component Analysis. Academic Technology Services.University of California, Los Angeles. Available online:
http://www.ats.ucla.edu/stat/SPSS/output/principal_component.htm (Retrieved 20 Dec 2010)

Table 1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.634
Bartlett's Test of Sphericity Approx. Chi-Square	1512.059
df	153
Sig.	0.000

Table 2

Communalities of the variables

Variable	Initial	Extraction
The information given about the product and services on internet are sufficient	1.000	0.880
It is great advantage to be able to shop at any time of the day on the internet	1.000	0.921
The description of the products shown on the website are accurate	1.000	0.876
Selection of the goods available on the internet are very broad	1.000	0.925
I prefer online shopping only if online prices are lower than actual prices	1.000	0.859
Shopping online is risky	1.000	0.936
Internet reduce the monetary cost on internet to great extent	1.000	0.874
While shopping online i hesitate to give my credit card number	1.000	0.660
I take pleasure in finding novel offerings online	1.000	0.742
I feel great sense of adventures and surprise when i do shopping online	1.000	0.754
I feel frustrated about what to do if i become dissatisfied with the purchase made on internet	1.000	0.801
Goods available on internet are of poor quality	1.000	0.887
I donot trust on the seller of these sites	1.000	0.910
I would have difficulty in resolving problems which may occur	1.000	0.720
I wouldn't be sure if the seller is genuine	1.000	0.860
I donot understand the bidding process	1.000	0.523
It sometimes results in paying more than I wanted to	1.000	0.646
Most of the products are damaged or faulty	1.000	0.879

Table 3

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Var	Cum %	Total	% of Var	Cum %	Total	% of Var	Cum%
1	3.567	19.817	19.817	3.567	19.817	19.817	3.404	18.911	18.911
2	2.641	14.673	34.489	2.641	14.673	34.489	2.155	11.975	30.886
3	2.136	11.868	46.358	2.136	11.868	46.358	1.965	10.916	41.802
4	2.006	11.145	57.503	2.006	11.145	57.503	1.872	10.401	52.203
5	1.674	9.297	66.800	1.674	9.297	66.800	1.765	9.808	62.011
6	1.340	7.442	74.242	1.340	7.442	74.242	1.758	9.768	71.779
7	1.290	7.169	81.411	1.290	7.169	81.411	1.734	9.632	81.411
8	.665	3.694	85.105						
9	.559	3.107	88.212						
10	.451	2.506	90.718						
11	.354	1.968	92.685						
12	.335	1.863	94.548						
13	.260	1.446	95.994						
14	.224	1.242	97.236						
15	.190	1.054	98.290						
16	.136	.754	99.044						
17	.118	.655	99.698						
18	.054	.302	100.000						

Var [Variance]; Cum [Cumulative]

Table 4

Rotated Component Matrix

Variable	Factor						
	F1	F2	F3	F4	F5	F6	F7
The information given about the product and services on internet are sufficient.					0.926		
It is great advantage to be able to shop at any time of the day on the internet .				0.946			
The descriptions of the products shown on the website are accurate .					0.929		
Selection of the goods available on the internet is very broad.				0.957			
I prefer online shopping only if online prices are lower than actual prices.							0.904
Shopping online is risky.	0.961						
Internet reduces the monetary cost on internet to great extent.							0.923
While shopping online i hesitate to give my credit card no.	0.808						
I take pleasure in finding novel offerings online.			0.838				
Shopping online is highly convenient and time-saving .			0.855				
I feel frustrated about what to do if I become dissatisfied with the purchase made on internet.		0.890					
Goods available on internet are of poor quality						0.932	
I don't trust on the sellers of these sites.	0.949						
I would have difficulty in resolving problems which may occur.		0.834					
I wouldn't be sure if the seller is genuine.	0.925						
Online shopping lowers the transaction cost.			0.682				
It sometimes results in paying more than I wanted to .		0.775					
Most of the products are damaged or faulty						0.916	