

# Technology Factors Of Online Shopping And Its Impact On Attitude With Special Reference To Student Community

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## **Abstract**

*Even though various security mechanism got adopted ,hackers always penetrate and overseeing the transaction. Various strategies or technological intervention are being adopted to enhance the safety of the transactions. The factors of internet security, website speed and context of the products are playing vital role on the successful online promotion. These issues are complex and very difficult to solve this through existing mechanism. Through this analysis, all the technological aspects as mentioned above have been analysed and suitable measures were adopted to overcome this problem. This study aimed to analyse various technical factors such as Awareness, Download time, Representativeness, Technical experience, Duration of Internet usage and components such as frequency of shopping, product purchased, Time spent, Money spent and Mode of Payment its impact on attitude through ANOVA. This study shows that almost all factors have positive impact in the attitude related to the Technological factors considered for the study.*

**Key words:** *Mode of Payment, Time spent, Money Spent, Frequency of shopping, Product purchased*

## **1. INTRODUCTION**

Online Shopping refers to buying of products or services through web (Rosen & Howard, 2000). It is also defined as the way of communication through electronics mode in order to execute business transactions by creating relationship among organizations or individual. It is the process of exchanging the products through internet enabled environment (Turban et al. 2008). The Online Shopping is one of the components of E-Commerce as it belongs to the category of Business to Consumer (B2C). Schneider (2008) indicates in his article, that e-commerce is a comprehensive term that includes all processes and other internal activities. Business-to-Business (B2B) Consumer to Consumer (C2C), and Consumer to Business (C2B) are the different models of E-Commerce.

The first World Wide Web server was formulated by Tim Berners-Lee in 1990. This innovation had been used for commercial purpose from the year 1991. The “Pizza” had opened an online shop in the year 1994 and this was followed by other companies such as Netscape, Amazon etc. The online shopping had evolved from a very humble beginning as the companies initially had performed fund transfer through internet based technology. The success of electronic fund transfer is an encouragement for the banks to further initiate a technological process of dispensing money through Automated Teller Machines

Frequent use of this technology (Berkowitz et al. 1979) has forced the stakeholders and industries to spread it in other areas like Enterprise Resource Planning (ERP), Data mining and Data Warehousing. Though, this internet based technology has occupied every industry in a predominant manner, the issues also arose in the form of security, (Laudon&Traver 2009) and trust Whysall (2000). So, the experts in the field were forced to design various security protocols in order to prevent misuse of data and other aspects. The security protocols designing activities were excellently executed thus leading to the formation of reliable and highly complicated security mechanism that enhanced confidence among general public on using internet for Online Shopping. From the year 2000, the companies in the developed world like United States and European Union have been using internet technology for commercial activities. H<sub>011</sub>: There is no significant difference in the frequency of online shopping and the Technology factors influencing the attitude.

## **2. Review Of Literature**

The success of online shopping companies is based on technological infrastructure (Bell et al. 1996; Hoffman et al. 1998). The important aspects of technological factors are internet infrastructure, download time and representatives towards colours and design (Seckler 1998; Eroglu et al. 2003). Consumer always expects better interconnectivity between them and the company. Through this seamless interconnectivity the consumer can communicate about the issues, problems, feedback and other difficulties that arise while they are involved in online shopping (Prasad et al. 2009). The online shopping companies have initiated the process of modernization of its websites to latest tools and software, which enables the customer to have world class experience while using it.

The young and modern day consumers do not have patience to wait for longer download time. If the time extended beyond the limit, the consumer may abort the shopping (Bell et al. 1996; Fram et al 1997; Hoffman et al. 1998; Weinberg 2000; Chong et al. 2003;). Further, Powell (2001) found in his study that the consumer does wait for only eight seconds to download information. If the website has higher downloading time, difficulty in access and slow response will negatively affect the consumer's interest towards online shopping. This also creates bad experience among them. (Broekhuizen et al. 2009). As the consumers did not have any opportunity to see the product directly, they have to rely on the website. Due to the adoption of various technologies, the colour and design appeared in the website might have changed a little bit thus leading to dissatisfaction among consumers (Eroglu et al. 2003).

## **3. Sampling Method**

The descriptive research is chosen for this research. Description is a process with the aim to serve, organize the findings and explanations, and then test or validate those explanations (Krathwohl, 1993). The descriptive research is helpful to organize the suggestions, findings and validate those outcomes by using suitable research tools. It is also used to find out the relations between two variables by formulating a hypothesis. This phenomenon adds to a certain degree of deductive approach in the descriptive research method. The deductive approach enables us to set premises, develop hypothesis and find out the relationship between various variables

As per the information obtained from the Websites of Bharatiyar and Anna University, it is found that the approximately 13,500 students are undergoing their Post Graduate Programme in Arts, Science and Engineering colleges situated in and around Coimbatore. Among the entire population 7182 students are selected through the purposive sampling method. The purposive sampling method was adopted to select the students who are doing online shopping at least two times in a month.

Simple random sampling is the basic sampling technique where a sample is selected for study from a population. Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample. From the selected samples of 7182 students, 10.47 % of the students are selected through Simple Random Sampling.

**4. ANALYSIS AND INTERPRETATION**

**4.1 Frequency of shopping and Attitude based on Technology Factor**

H<sub>01</sub>: There is no significant difference in the frequency of online shopping and the technology factor influencing the attitude

H<sub>1</sub>: There is a significant difference in the frequency of online shopping and the Technology factor influencing the attitude

**Table 1 Frequency of shopping and Attitude based on Technology Factor**

Frequency of Online shopping	N	Subset for alpha = .05	
		1	2
Rarely	145	20.0207	
Mostly	414	20.7391	20.7391
Very Often	193		21.1554
Sig.		.076	.419

Tukey’s post hoc compares the technology factor and the result based on the frequency of online shopping was found to be high with respect to respondents shopping very often (M=21.15, 95% CI [20.69, 21.61]) which shows the significant level of difference in the frequency of online shopping between the respondents based on the technology factor influencing the attitude of the respondents.

Therefore, it is concluded that the respondents who shop very frequently were found to have higher attitude based on the Technology factor leading to online shopping.

**4.2 Time Spent And Attitude Towards Shopping Online**

H<sub>02</sub>: There is no significant difference in the time spent for online shopping and the technology factor influencing the attitude

H<sub>2</sub>: There is significant difference in the time spent for online shopping and the technology factor influencing the attitude

**Table 2 Time spent and Attitude based on Technology Factor**

Time spent for shopping online	N	Subset for alpha = .05	
		1	2
Less than 2 hours	193	20.1503	
2 to 4 hours	280	20.7893	20.7893
More than 4 hours	279		21.1088
Sig.		.092	.

			7
			4
			9

Tukey’s post hoc compares the technology factor and the result based on the time spent for online shopping was found to be high with respect to respondents spending between more than 4 hours for shopping (M=21.01, 95% CI[20.62, 21.39]) which shows the significant level of difference in the time spent between the respondents based on the Technology factor influencing the attitude of respondents than other two categories.

Therefore, it is concluded that the respondents who spend between 2 to 4 hours were found to have higher attitude based on the technology factor leading to online shopping.

**4.3 Products often purchased and Attitude based on Technology Factor**

Product often purchased online	N	Subset for alpha = .05	
		1	2
Kitchen items / Gardening / Hobby items	54	20.2031	
Clothing / Accessories / Shoes	330	20.6061	20.6061
Computer / Electronics / Softwares	278	20.6727	20.6727
Others	26	20.9231	20.9231
Books / DVD / CD	64		22.0000
Sig.		.751	.138

H<sub>03</sub>: There is no significant difference in the product often purchased during online shopping and the technology factor influencing the attitude.

H<sub>3</sub>: There is significant difference in the product often purchased during online shopping and the technology factor influencing the attitude

**Table 3 Products often purchased and Attitude based on Technology Factor**

Tukey’s post hoc compares the technology factor and the result based on the time spend for online shopping was found to be high with respect to respondents buying Books / DVDs / CDs during shopping (M=22.00, 95% CI[21.20, 22.79]) which shows the significant level of

difference in the products often purchased between the respondents based on the Technology factor influencing the attitude than the other two categories.

Therefore, it is concluded that the respondents buying Books / DVDs / CDs during shopping were found to have higher attitude based on the technology factor leading to online shopping.

**4.4 Money spent and Attitude based on Technology Factor**

H<sub>04</sub>: There is no significant difference in the money spent during online shopping and technology the factor influencing the attitude

H<sub>4</sub>: There is significant difference in the money spent during online shopping between the respondents and the technology factor influencing the attitude

**Table 4 Money spent and Attitude based on Technology Factor**

Average amount spent for shopping online	N	Subset for alpha = .05	
		1	2
Less than Rs.500	402	20.4254	
Rs.500 to 1000	134		20.9907
More than Rs.1000	216		21.0970
Sig.		1.000	.055

Tukey’s post hoc compares the technology factor and the result based on the money spent for online shopping was found to be high with respect to respondents spending more than Rs.1000 during shopping (M=21.09, 95% CI[20.563, 21.417]) which shows the significant level of difference in the money spent based on the Technology factor influencing the attitude than the other two categories.

Therefore, it is concluded that the respondents spending more than Rs.1000 during shopping were found to have higher attitude based on the consumer, marketing and technology factors leading to online shopping.

**4.5 Mode of payment preferred and Attitude based on Technology Factor**

H<sub>05</sub>: There is no significant variance in the mode of payment preferred during online shopping and the technical factor influencing the attitude.

H<sub>5</sub>: There is significant variance in the mode of payment preferred during online shopping and the technical factor influencing the attitude.

Mode of Payment preferred when shopping online	N	Subset for alpha = .05	
		1	2
Internet Banking	13	20.0075	

Cash on Delivery	3 4 1		20.9120
Debit / Credit Card	2 7 8		20.7914
Sig.		1.0 00	.927

**Table 5 Mode of payment preferred and Attitude based on Technology Factor**

Tukey’s post hoc compares the technology factor and the result based on the mode of payment for online shopping was found to be high with respect to respondents preferred Cash on Delivery payment method during online shopping (M=20.91, 95% CI[20.54, 21.27]) which shows the significant level of difference in the mode of payment based on the Technology factor influencing the attitude was found than the other two categories.

Therefore, it is concluded that the respondents preferred Cash on Delivery payment method is found to have higher attitude based on the technology factor leading to online shopping.

### 6. Findings

The respondents who shop very frequently were found to have higher attitude based on the Technology factor leading to online shopping and the respondents who spend between 2 to 4 hours were found to have higher attitude based on the technology. The factor leading to online shopping the respondents buying Books / DVDs / CDs during shopping were found to have higher attitude based on the technology factor leading to online shopping and the significant level of difference in the money spent based on the Technology factor influencing the attitude than the other two categories. The significant level of difference in the Cash on Delivery on the Technology factor influencing the attitude was found that Cash on Delivery payments during shopping online were found to have higher attitude based on the technology factor leading to online shopping.

### 7. CONCLUSIONS

The quick opening of sites is the most preferred factor among the factors selected so the vendors should design websites which are technically advanced with seamless easiness. The significant influence of technological factors on attitude shows that the stake holders of online shopping business have to develop very dynamic and technologically advance websites to keep the consumers in the positive side of the attitude

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