

Influence of E Commerce Web Features on Customer Decision Making

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Abstract

In the era of technology, internet has become part of the daily life. In India, in a short span of time cell phone has become part of the daily life without which usually customers do not step out. A cell phone armed with mobile data is a more powerful communication instrument than any contemporary communication instrument. Internet emerged as a primary and powerful vehicle for commercial activities like Marketing and Non Commercial activities like social and volunteer services through several media. In this scenario E Commerce became a power alternative source for sales and marketing

Most of the business houses, slowly but steadily entering into online business apart from their regular retail business mode of operations. E Commerce sales as a percentage of total retail sales in India in 2017 are 2.2%. Active E Commerce penetration in India as of 4th quarter of the year 2016 is 23%. As per the projection of CAGR, Indian Retail E Commerce 2016 -21 growth would be 23% (source: <http://www.ststista.com/statistics/289770/india-retail-e-commerce-sales>).

The objective of this research study is to provide an overview on factors influencing online shopping decision process segregating and considering the factors under five variables namely Online shopping – User interface quality – Information quality – Perceived security – Perceived Privacy –leading to Customer Satisfaction and ultimately increased customer satisfaction leads to Customer Loyalty.

In light of the above facts a research study using Structural Equation Model consisting 5 variables leading to Customer Satisfaction and which ultimately leads to Customer Loyalty has been undertaken with due care following standard research guidelines – a structured, pilot tested questionnaire is employed to capture the opinion, practices and satisfaction of the online marketing customers through purposive convenience sampling. The collected data of 921 customers is fed into the excel sheet. After due filtration and using (SPSS) appropriate statistical tests the data has been analyzed. The result of the study is in brief is: Customers using online marketing are happy with the services and their rate of satisfaction is moderate to high. They are more concerned with cyber security. They are enjoying every new feature included in the online marketing especially younger generation. They are looking forward for virtual shopping.

Key words: *Online shopping – User interface quality – Information quality – Perceived security – Perceived Trust - Perceived Privacy – Customer satisfaction – Customer Loyalty*

Introduction

In a span of a decade there is visible change in the markets where internet is playing a vital role in every sphere. Traditional marketing armed with internet turned into E Commerce. E Commerce changed the face of the marketing. It is expected that shortly, virtual marketing will come into the picture which will gear up the E Commerce to the new heights. Once the technology becomes short of arm it enhances user interface which obviously increase the interest of the customer

As online shopping is becoming more and more popular due to offering more convenience, also contrarily more challenges it is posing namely issues like, privacy, cheating, Fraud and security concerns etc.

Online shopping websites is build to allow people to sell and advertise their item or buy any things that they needed via website. In 1990, Tim Berners-Lee created the first World Wide Web server and browser. According to Kathryn (2010), in 1992, several years before Amazon was launched, there has a first-ever online bookstore been opened by a man named Charles Stack. Now it becomes Books.com. But, the first businesses to really make shopping online popular are Amazon and eBay which is launched by 1995 and 1996. These two businesses remain among the top online shopping sites today. The system is build in ethical way as it allows people to sell and advertise their items or buy any things as they needed via website. However, some people who having guilty mind take this advantage to do cyber crimes, such as cheating or scamming, stealing credit card information and etc. As stated in Wikipedia (2010), online shopping website brings a lot of advantages to public, such as more convenience, lower price and selection, information and review and etc. On the other hand, there are some disadvantages exist too, such as fraud and security concerns, lack of full cost disclosure, privacy and etc.

The internet has played a significant role in our day to day life where people can talk through the internet to one who is actually on the other side of the Earth, can send email around the clock, can search information, can play game with others, and even can buy things online. Meanwhile, Internet shopping has been widely accepted as a way of purchasing products and services. It has become a more popular means in the Internet world ((Bourlakis et al., 2008)). It also provides consumer more information and choices to compare product and price, more choice, convenience, easier to find anything online ((Butler and Peppard, 1998)). Online shopping has been shown to provide more satisfaction to modern consumers seeking convenience and speed ((Yu and Wu, 2007)). On the other hand, some consumers still feel uncomfortable to buy online. Lack of trust, for instance, seems to be the major reason that impedes consumers to buy online. Also, consumers may have a need to exam and feel the products and to meet friends and get some more comments about the products before purchasing. Such factors may have negative influence on consumer decision to shop online.

This study has considered five important variables namely User interface quality, Information quality, Perceived security, Perceived Trust and Perceived Privacy which together give Satisfaction to the Customer and which ultimately leads to Customer Loyalty.

Conceptual base

This study has examined traditional consumer purchase process which typically starts with need awareness, then information search, alternative evaluations, deciding to purchase and finally, post-purchasing behavior.

On the other hand the study has also examined customer behaviour at online shopping where customers see banner ads or online promotion, internet based advertisements which may attract customers' attention and stimulate their interest towards a particular product(s). The purchase decision will takes place only after examining the additional information. If they do not have enough information, they will search through online channels, e.g., online catalogs, websites, or search engines ((Laudon and Traver, 2009)). Once, the required information is before hand, immediately the information will be compared, evaluated on need based against the budget available and at the same time to ascertain their decision they will search customer reviews on identified products which also helps them to choose the right product to fulfill their need. A well designed website will provide the necessary information in brief with user friendly pictograms (Koo et al., 2008). Along with this source of information may influence buyer decision (Bigné-Alcañiz et al., 2008). The noted and helpful characteristic of internet is that it aids the pre-purchase stage (Maignan and Lukas, 1997) as it helps customers compare different options (Dickson, 2000). At the time of purchase the product information, quality marks, quantity or size of the pack and post sale services etc., help

consumers decide what product they should select, or from which seller they should buy from (Koo et al., 2008). Some times in the Post-purchase consumer may want to change or return the product that they have bought and in such cases, return and exchange services become more important (Liang and Lai, 2002).

In the process of making a purchase decision customer seek information about the product and keep searching the information from various sources and compare the available information and makes the best decision. The information search process is a significant component of customer's online shopping behavior (Seock and Norton, 2007). In the process of seeking information sometimes customer needs to register by submitting his personal details which is vulnerable to cyber risk. As such, in addition to product risk, consumers also face the risk of information security (Comegys et al., 2009; Wang et al., 2005). Because of the nature of online purchasing, customers take the risk as they are not able to examine the product before purchasing. They also take the risk in the payment process because they may need to provide personal information including their credit card number. Security problem does not stop at the purchase stage but continues to the post-purchase stage because their personal information might be misused.

The research identified some basic influencing factors that propel consumers to take decision to purchase or not through online. Thus, the research identified managerial implications of how internet based marketers can use this knowledge to improve and develop their online business and make it more attractive for online shoppers.

Research Gap:

The earlier research studies focused on factors influencing consumer behaviour in traditional marketing. Even though, more or less the same factors do have influence, additional factors to be considered influencing the buyers decision are features of web page and how user friendly and able to attract the attention of the user i.e convenient, ease of navigation and useful to the customer. Hence, influence of features of web page is considered as a research gap in this study

Objectives of the Study:

- To identify the features of web page which helps the online shopping customer to do shopping and transaction
- To assess the influence of web page features on consumer decision to go for online shopping

Methodology of the Study

To materialize the above said objectives a well structured, pilot tested questionnaire has been catered to 921 respondents. To collect the data a purposive convenience sampling is used. The questionnaire consists of two parts. First part consists of demographic questions and second part consists of sub-sects in accordance to the objectives to be realized. The sub-sects include the variables User interface quality, Information quality, Perceived security, Perceived Trust, Perceived Privacy, Customer satisfaction and Customer Loyalty. Altogether the total numbers of questions are 62. However, some questions have some more sub questions to know the customer perception and satisfaction towards various services of desired E Commerce and suggestions. Collected data has been subjected to analysis with the help of simple percentage method, chi-square, Anova, Factor Analysis, Reliability tests and other relevant statistical tests

Data Analysis and Findings of the Study

To realize the objective the researcher has considered customer time period of acquaintance with E-Commerce Services and what website features attracted his attention and influenced him to do online shopping. Hence, against the factor how long you are using E Commerce services was compared with all the 14 identified webpage features through cross tabs. The analysis was presented here under:

All the analytical tables and chi-square application are self-explanatory

The following table shows the output of the Cross tables with chi-square test and whether there is a statistically significant difference between levels of Gender and Web design.

Null Hypothesis: There is no significant difference between Gender and Web Design.

Rule: If the Sig value is less than 0.05 then reject the null hypothesis, else accept Null Hypothesis

Decision: Since the Sig value is 0.000 which is less than 0.05 so we reject the Null hypothesis

Conclusion: There is significant difference between Gender and Web Design

How long you are using E-Commerce Services * Web design

Crosstab

Count

	Web design					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	3	0	12	21	9	45
Not using E-Commerce Services	2	3	21	42	46	114
Less than 6 Months	0	3	8	65	43	119
6 Months to 1 year	18	20	93	247	265	643
More than 1 Year	23	26	134	375	363	921
Total						

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.314 ^a	12	.002
Likelihood Ratio	35.265	12	.000
Linear-by-Linear Association	2.238	1	.135
N of Valid Cases	921		

a. 6 cells (30.0%) have expected count less than 5. The minimum expected count is 1.12.

How long you are using E-Commerce Services * Operational Process

Crosstab

Count

	Operational Process					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	0	12	15	15	3	45
Less than 6 Months	3	3	18	62	28	114
6 Months to 1 year	8	2	18	64	27	119
More than 1 Year	12	27	108	260	236	643
Total	23	44	159	401	294	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	94.161 ^a	12	.000
Likelihood Ratio	73.059	12	.000
Linear-by-Linear Association	23.827	1	.000
N of Valid Cases	921		

4 cells (20.0%) have expected count less than 5. The minimum expected count is 1.12.

How long you are using E-Commerce Services * Landing speed of web page

Crosstab

Count

	Landing speed of web page					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
. How long you are using E-Commerce Services	6	9	9	9	12	45
Less than 6 Months	0	3	27	52	32	114
6 Months to 1 year	3	5	24	44	43	119
More than 1 Year	17	6	98	222	300	643
Total	26	23	158	327	387	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.529 ^a	12	.000
Likelihood Ratio	71.602	12	.000
Linear-by-Linear Association	35.791	1	.000
N of Valid Cases	921		

a. 6 cells (30.0%) have expected count less than 5. The minimum expected count is 1.12.

How long you are using E-Commerce Services * Security

Crosstab

Count

	Security					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
. How long you are using E-Commerce Services	6	0	9	15	15	45
Less than 6 Months	0	3	11	32	68	114
6 Months to 1 year	0	6	6	22	85	119
More than 1 Year	15	9	33	110	476	643
Total	21	18	59	179	644	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	76.842 ^a	12	.000
Likelihood Ratio	64.541	12	.000
Linear-by-Linear Association	26.309	1	.000
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .88.

How long you are using E-Commerce Services *Trust

Crosstab

Count

	Trust					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	6	0	15	12	12	45
Less than 6 Months	3	0	6	44	61	114
6 Months to 1 year	6	6	6	24	77	119
More than 1 Year	14	6	39	138	446	643
Total	29	12	66	218	596	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	106.396 ^a	12	.000
Likelihood Ratio	77.570	12	.000
Linear-by-Linear Association	36.100	1	.000
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .59.

How long you are using E-Commerce Services * Payment

Crosstab

Count

		Payment					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	3	6	6	12	18	45
	Less than 6 Months	0	3	11	41	59	114
	6 Months to 1 year	0	3	6	48	62	119
	More than 1 Year	11	6	54	165	407	643
Total		14	18	77	266	546	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.838 ^a	12	.000
Likelihood Ratio	48.365	12	.000
Linear-by-Linear Association	18.395	1	.000
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .68.

How long you are using E-Commerce Services * Interaction

Crosstab

Count

		Interaction					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	3	6	12	18	6	45
	Less than 6 Months	0	3	21	42	48	114
	6 Months to 1 year	0	12	15	46	46	119
	More than 1 Year	18	26	76	251	272	643
Total		21	47	124	357	372	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.720 ^a	12	.000
Likelihood Ratio	45.352	12	.000
Linear-by-Linear Association	9.276	1	.002
N of Valid Cases	921		

a. 4 cells (20.0%) have expected count less than 5. The minimum expected count is 1.03.

How long you are using E-Commerce Services * Information Quality

Crosstab

Count

	Information Quality					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services						
Less than 6 Months	6	3	15	12	9	45
6 Months to 1 year	0	3	9	62	40	114
More than 1 Year	3	0	3	42	71	119
Total	11	9	56	200	367	643
	20	15	83	316	487	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	109.494 ^a	12	.000
Likelihood Ratio	88.547	12	.000
Linear-by-Linear Association	37.984	1	.000
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .73.

How long you are using E-Commerce Services * Privacy

Crosstab

Count

		Privacy					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	0	6	6	15	18	45
	Less than 6 Months	0	0	8	35	71	114
	6 Months to 1 year	0	3	3	21	92	119
	More than 1 Year	15	11	57	121	439	643
Total		15	20	74	192	620	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	60.048 ^a	12	.000
Likelihood Ratio	53.829	12	.000
Linear-by-Linear Association	1.940	1	.164
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .73.

How long you are using E-Commerce Services * Product/Service Quality

Crosstab

Count

		Product/Service Quality					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	3	0	9	18	15	45
	Less than 6 Months	0	3	12	38	61	114
	6 Months to 1 year	0	3	8	46	62	119
	More than 1 Year	3	18	46	172	404	643
Total		6	24	75	274	542	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.131 ^a	12	.000
Likelihood Ratio	37.691	12	.000
Linear-by-Linear Association	15.368	1	.000
N of Valid Cases	921		

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .29.

How long you are using E-Commerce Services * Product/Service Price

Crosstab

Count

	Product/Service Price					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services						
Not using E-Commerce Services	0	3	18	12	12	45
Less than 6 Months	0	3	15	43	53	114
6 Months to 1 year	0	0	16	48	55	119
More than 1 Year	6	27	55	219	336	643
Total	6	33	104	322	456	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	55.432 ^a	12	.000
Likelihood Ratio	49.350	12	.000
Linear-by-Linear Association	10.156	1	.001
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .29.

How long you are using E-Commerce Services * Time

Crosstab

Count

		Time					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	3	3	9	15	15	45
	Less than 6 Months	3	6	9	48	48	114
	6 Months to 1 year	0	8	3	33	75	119
	More than 1 Year	12	15	75	218	323	643
Total		18	32	96	314	461	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.395 ^a	12	.000
Likelihood Ratio	42.215	12	.000
Linear-by-Linear Association	6.687	1	.010
N of Valid Cases	921		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .88.

How long you are using E-Commerce Services * Return

Crosstab

Count

		Return					Total
		Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services	Not using E-Commerce Services	3	0	12	18	12	45
	Less than 6 Months	3	3	17	49	42	114
	6 Months to 1 year	3	9	15	37	55	119
	More than 1 Year	25	33	55	235	295	643
Total		34	45	99	339	404	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.288 ^a	12	.003
Likelihood Ratio	29.788	12	.003
Linear-by-Linear Association	3.661	1	.056
N of Valid Cases	921		

a. 5 cells (25.0%) have expected count less than 5. The minimum expected count is 1.66.

How long you are using E-Commerce Services * Shopping Convenience

Crosstab

Count

	Shopping Convenience					Total
	Not Very Important	Not Important	Neutral	Important	Very Important	
How long you are using E-Commerce Services						
Not using E-Commerce Services	6	6	12	12	9	45
Less than Months	63	0	25	41	45	114
6 Months to year	16	6	17	33	57	119
More than Year	115	18	47	250	313	643
Total	30	30	101	336	424	921

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	81.443 ^a	12	.000
Likelihood Ratio	70.027	12	.000
Linear-by-Linear Association	35.552	1	.000
N of Valid Cases	921		

7 cells (35.0%) have expected count less than 5. The minimum expected count is 1.47.

Importance of satisfaction indicators:

The importance of satisfaction indicators can be quantified by the index as follows:

$$V_i = \sum X_j Y_{ij} \quad (i=1,2,3,\dots,n, j=1,2,3,\dots,k)$$

n : is the number of indicators of customer satisfaction;

k: is the number of classification level of customer satisfaction

V_i: refers to the customer on the importance for – ith indicators

X_j: Refers to when satisfaction of registered for – jth, the corresponding scores

Y_{ij}: Refers to the –ithindicator that customers choose a percentage of the –jth level of satisfaction.

Example:

$$\text{Web design Importance} = (1 * 23/921) + (2 * 26/921) + (3 * 134/921) + (4 * 375/921) + (5 * 363/921) = 4.117$$

Evaluation Index	1 point	2 points	3 points	4 points	5 points	Importance
Q42. Web design	23	26	134	375	363	4.117
Q43. Operational Process	23	44	159	401	294	3.976
Q44. Landing speed of web page	26	23	158	327	387	4.114
Q45. Security	21	18	59	179	644	4.528
Q46. Trust	29	12	66	218	596	4.455
Q47. Payment	14	18	77	266	546	4.425
Q48. Interaction	21	47	124	357	372	4.099
Q49. Information Quality	20	15	83	316	487	4.341
Q50. Privacy	15	20	74	192	620	4.501
Q51. Product/Service Quality	6	24	75	274	542	4.435
Q52. Product/Service Price	6	33	104	322	456	4.291
Q53. Time	18	32	96	314	461	4.268
Q54. Return	34	45	99	339	404	4.123
Q55. Shopping Convenience	30	30	101	336	424	4.188

From the above analysis it is understood that customers give much preference to Privacy, Security and Trust of information. Nevertheless, every feature shown above is proved as very much important in customer opinion and the values explains the same.

Closing remarks

The research has focused on five major variables. Apart from those variables research has identified website features which not only strongly attract the online shoppers but offer the user friendly online shopping experience. Therefore, the output indicates that identified features namely web design, Operational process, landing speed of the Web page, security, Trust, Payment, Interaction, Information quality, Privacy, Product Service Quality, Product Service Price, Time, Return and Shopping Convenience are the prime factors which will provide convenience E Commerce shopping experience to the customer. Among the above mentioned variables Trust, Security, Privacy and Payment are compulsorily checked by all most all E Commerce customers. Hence, E Commerce service providers have to ensure that all the above said factors are placed in the website which will attract and offer convenience to the customer.

References:

- Alam S., And Yasin, N. (2010). An Investigation into the antecedents of customer satisfaction of online shopping. *Journal Of Marketing Development And Competitiveness*, 5(1), 71-78.
- Albarq. (2006). Intention to Shop Online Among University Students in Jordan. *Universiti Utara Malaysia*. Retrieved from http://www.thesisabstracts.com/ThesisAbstract_168_Intention-to-Shop-Online-Among-University-Students-in-Jordan.html
- Aimol agfit, Verma Rekha and Chacko Nisha (2014), Consumers attitude towards online shopping, *Research Journal of family, community and consumer sciences*, ISSN-2320-902X, Vol-2(8)
- Central Intelligence Agency (CIA). (2009). Statistical report on number of users that access the internet. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/fields/2153.html>
- Chiu, C. M., Huang, H. Y., & Yen, C. H. (2010). Antecedents of online trust in online auctions. *Electronic Commerce Research and Application*, 9, 148-159.
- Factors Affecting Customer Satisfaction... (PDF Download Available). Available from: https://www.researchgate.net/publication/281114238_Factors_Affecting_Customer_Satisfaction_towards_Online_Shopping [accessed May 15 2018].
- Prof.P Pinakapani B. Viswanadham (2018), E Commerce and Customer Satisfaction, *Asia Pacific Journal of Research*; ISSN:2320-5504; Vol – 1; Issue – L XXXVII, April:2018; pp:462-469
- Prashant Singh (2014), Consumers buying behavior towards online shopping, *ABHINAV-National Journal of Research in Commerce and Management*, ISSN-2277-1166, Vol -III
- Prof.Ashih Bhatt (2014), Consumers attitude towards online shopping in selected region of Gujarat, *Journal of Marketing Management*, ISSN-2333-6080, Vol.-02, No.-02
- Ravjot Kaur, Gurmeet Kaur, Aman Kumar, Gaurav Kumar (2015), Customers attitude towards online shopping in Chandigarh, *International Journal of management and social Sciences, Research*, ISSN2319-4421, Vol-4, No.-3
- Upasan Kanchan (2015), A study of online purchase behavior of Consumers in India, *ICTACT Journal of management Studies*, ISSN 2395, Vol-01, Issue-03
- Manisha Kinker and N.K.Shukala (2016), An analysis of consumer behavior towards online shopping of Electronic Goods with special reference to Bhopal and Jabalpur city., *International Journal of innovations and Applied Studies*, ISSN 2028-9324, Vol-14 No.-.3
- P.Pinakapani (2009), *New Trends of Indian Retail Markets* ISBN no: 81-8424-157-7
- www.statista.com
- www.google.com