CONSUMERS PERCEPTION TOWARDS DESIGN OF
ONLINE SHOPPING PORTAL

Dr. Shilpi Saxena[*]

ABSTRACT

The emergence of internet has changed the way of conducting business today. Internet along with other benefits also offers the benefits of selling goods and services through it. Globally the phenomenon is known as online shopping. Online shopping has several models, out of which one is business to consumer model. The scope of present study is limited to this model only. There are many focus areas of online shopping system among which one is website design. Design of an online shopping website has influence on the perception of online shoppers along with other associated focus areas. With this purview, this work is conducted for finding out the factors of online shopping portal design which influences the perception of e buyers towards online shopping system. A sample of 218 e buyers has been taken to collect the data required for the study. The result of the study has been derived by using exploratory factor analysis.

KEYWORDS: *E-commerce, Business-to-Customer, Exploratory Factor Analysis.*

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Introduction

As the internet permeates geographic boundaries and varied demographic strata, electronic commerce/online shopping is witnessing exponential growth. The internet has become an important tool for gathering information and purchasing products and services. Because of the fast growth of e-commerce, the internet has become a vital business means for selling products and services (Corbitt et al., 2003).E-commerce, which has become a limitless business medium in this era of globalization. Because of e commerce, geographically divided and culturally distant buyers and seller can connect with each other easily. Online shopping provides multiple benefits to consumers including easy access to wide range of products, services and information. Even consumers have the facility of easy comparison of product on several websites.

In online shopping system, visiting website of an e seller is the first step. A consumers' first experience plays a long lasting role in building its perception towards the e seller. A perfectly designed shopping website always encourages the visitors to spend more money, to buy more products or services, and to become a repeat customer of same seller. Thus it significantly contributes towards the e sellers' objective of making profit. Contrary to itif the Website is poorly designed, slow or confusing to navigate its makes difficult, if not impossible, for people to buy anything. As an implication ,the e seller has to spend lot of money on promoting itself and on retaining the online buyers. Website designing is a complicated process by itself, and even more so when merged with consumer behavior. It's extremely important for the e sellerto design an online shopping portal as simple as possible, so that even the least computer-savvy shoppers can find and buy a product from the website quickly and easily. Basic elements of design of an e seller's website includes theme color, ease of use, quick navigation, fast loading time, completeness of information, customer support information, mobile and tablet compability. In past several studies have been conducted related to design of website. In order to gain insight into the theme of this study ,below mentioned papers have been reviewed.

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[*]   Assistant Professor, The IIS University, Jaipur, Rajasthan, India.

Literature Review

- **C. Ranganathan & Sobha Ganapathy (2002)** examined the key characteristics of a B-2-C websiteas perceived by online consumers. They found that there are four key dimensions of a website i.e. information content, design, security and privacy which affects the online purchase intention of consumers.
- **Shergill, Gurvinder S&Chen, Zhaobin(2005)** have found that website security/privacy, website design, website reliability/fulfillment and website customer service are the four dominant factors which influence consumer perceptions of their online purchasing experiences.
- **Blanca Hernández , Julio Jiménez, M. José Martín (2009)** analyzes the main factors that must be taken into account when designing a commercial website like accessibility, speed, navigability, content. The results obtained suggested that the navigability makes users feel comfortable and secure. The information provided on the website must be accurate, informative, updated and relevant to customers' requirements.
- **Boudhayan Ganguly & et. al. (2010)** have showed that information design, visual design and navigation design (website design factor) are significant predictors of trust in online stores.
- **Turkyilmaza C. A. & et.al. (2015)** have found in their study that among all the dimensions of website quality studied "ease of use" has the most important role in terms of the effect on online impulse buying.
- **G.R.Shalini1, K.S.HemaMalini2 (2015) has found** that there is relationship between online shopping website characteristics, attitude and trust of consumer to purchase online. Thus the website characteristics will attract consumers.

Need of Study

The emergence of internet has changed the way consumers shop and purchase goods and services leading to rise of e commerce industry. This vastness of the Indian market along with the growth of e-commerce and the entry of national and multinational online retailers, has posed a very relevant need for understand the factors that influences the online shoppers' choice of website.

Research Objective

- To explore the literature related to design of online shopping websites.
- To find out the factors of online shopping website design which affects the perception of online shoppers.

Research Methodology

For the purpose of this study, the website design of B-2-C model of e commerce has been taken into consideration only. The study started with extensive literature review. A sample of 250 online buyers has been selected using convenience sampling method. The primary data for the study has been collected by using questionnaire. The questionnaire was consists of questions related to demographic profile of respondents and a question related to website design variables. This question was designed on 5 point likert scale where strongly agree is denoted by 1 and strongly disagree is denoted by 5. Out of the entire questionnaire distributed, only 218 questionnaire were found useful for further analysis. The reliability of questionnaire was checked by calculating Cronbach's alpha coefficient value. The Cronbach's alpha value for the question on likert scale of present study is0.789 (Table 1).The value is in acceptable range which confirms the reliability of questionnaire.

Table 1: Reliability Analysis

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.790	.789	13

Analysis and Interpretation

Table 2: Demographic Profile of Respondents

Demographical Variables	Options	Frequency	Percentage
Gender	Male	119	54.6
	Female	99	45.4
	Total	**218**	**100.0**
Age	25-30	50	22.9
	31-35	72	33.0
	36-40	65	29.8
	41-45	31	14.3
	Total	**218**	**100.0**

Marital status	Married		143	65.6
	Unmarried		75	34.4
		Total	218	100.0
Qualification	Upto university		183	83.9
	Professional qualification		35	16.1
		Total	218	100.0
Profession	service		161	73.9
	business		42	19.2
	homemaker		15	6.9
		Total	218	100.0
Annual Income	nil		76	34.9
	Less than 1 lakh		17	7.8
	1 lakh to 4 lakh		102	46.8
	More than 4 lakh		23	10.6
		Total	218	100.0

Source: Primary data

As indicated from table 2, the percentage of males (54.6%) is higher than females in sample. Agewise, respondents having age in between 31 to 35 years are in majority (33.0%) in sample being followed by respondents belonging to the age group of 36 to 40 years of age. The proportion of married people (65.6%) exceeds from those who are unmarried in the sample taken. Qualification wise, majority is of those respondents who have education upto university level. Respondents having annual income in between rupees 1 lakh to rupees 4 lakh are in highest in percentage in the sample.

Factor Analysis

Exploratory Factor analysis is used to identify factors of website design having influence on the perception of online buyers. **Exploratory factor analysis** is a statistical technique that is used to reduce data to a smaller set of summary variables and to explore the underlying theoretical structure of the phenomena. It is a statistical approach for determining the correlation among the variables in a dataset.

KMO and Bartlett's Test

While conducting exploratory factor analysis, the first step is to perform KMO and Bartlett's Test. The Kaiser-Meyer-Olkin is the measure of sampling adequacy, which varies between 0 and 1. The values closer to 1 are considered better and the value of 0.6 is the suggested minimum. In present study, the value of KMO measure is 0.801 **(Table 3)** which is above the minimum defined. Thus, it confirms the sampling adequacy. The Bartlett's Test of Sphericity is the test for null hypothesis that the correlation matrix has an identity matrix. Rejection of null hypothesis gives an indication that the variables of study are related and can be reduced into factors. For present work, the significant value (0.00) is less than 0.05, thus the null hypothesis is rejected. Hence both these tests provide the minimum standard to proceed for Factor Analysis.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.801
Bartlett's Test of Sphericity	Approx. Chi-Square	538.703
	df	78
	Sig.	.000

Table 4: Total Variance Explained

Compo nent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.722	28.629	28.629	3.722	28.629	28.629	2.406	18.510	18.510
2	1.350	10.387	39.016	1.350	10.387	39.016	2.117	16.288	34.797
3	1.227	9.442	48.457	1.227	9.442	48.457	1.776	13.660	48.457
4	.949	7.298	55.756						
5	.890	6.844	62.600						
6	.795	6.118	68.717						
7	.732	5.627	74.345						
8	.711	5.468	79.813						
9	.655	5.037	84.851						
10	.594	4.572	89.423						
11	.542	4.167	93.590						
12	.438	3.369	96.960						
13	.395	3.040	100.000						

Extraction Method: Principal Component Analysis.

Table 5: Rotated Component Matrix[a]

Variables	Component		
	1	2	3
Logical & Well organized presentation of Information on an online shopping website			.762
Completeness of information about products			.819
Visual presentation of product on website			.593
Time consumed in display of image of merchandise	.599		
Reviews of customers available on website	.782		
Ease of navigation for information search on website	.715		
Time consumed in navigation	.549		
The overall attractiveness of a website (*i.e.*, colours, images, layout, *etc.*)		.671	
Facility for creation of individual Account With login Id & password		.761	
Modes of payments offered by an online shopping website		.559	
Personal information asked by an online shopping website			
The bill displayed for purchased items by website			
Availability of options to interact in case of a problem			
Extraction Method: Principal Component Analysis. **Rotation Method: Varimax with Kaiser Normalization.**			

a. Rotation converged in 6 iterations.

In order to identify the underlying factors of website design, which influence the e-buyers' choice of website , 13 variables related to website design were evaluated through Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax Rotation. Eigen value of one was taken as the criterion for inclusion of factors (Hair, Black, Babin, & Anderson, 2010). The first column of Table 4 titled total variance explained, represents total number of variables taken in the study. The combination of these variables will yield the factors. The Eigen values are the variances of the factors. The total column contains the Eigenvalue. The first factor always account for the most variance and hence have the highest Eigen values. The next factor accounts for as much of the left over variance as it can and the same will continue till the last factor. The percentage of variance column, represents the percent of total variance accounted by each factor and the cumulative percentage column, gives the cumulative percentage of variance accounted by the present and the preceding factors. The rotation sums of the squared loading column, represents the distribution of the variance after the varimax rotation with Kaiser Normalization. The varimaxrotation tries to maximize the variance of each of the factor. For the present study, the variance explained by first factor after rotation is 18.510%, variance explained by second factor is 16.288% and in case of third factor is 13.660%.All the three factors together lyexplain 48.457% of the variance in present study. Table 5 titled Rotated Component Matrix represents the factors that have been extracted out of the total variables along with rotated factor loadings, which are the correlations between the variables and the factors.

Discussion

The study resulted in extraction of three factors. The first factor extracted is named as website fulfillment. The correlation values of 0.599,0.782,0.715,0.549 are found for the responses of e buyers under the factor. The highest correlation value of 0.782 under the first factor is for the reviews of past e buyers available on the website for new e buyers. The correlation value of 0.715 is for the ease of navigational property of online shopping website under first factor extracted. Time consumed in display of a product have correlation value of 0.599 under this factor. The correlation value of 0.549 is for time consumed in navigation on the website. The second factor extracted in the study is Website features. The correlation values for the responses of e buyers under this factor are 0.671, 0.761, and 0.559.The highest correlation value of 0.761 is for the attractiveness of website being followed by correlation value of 0.671 for account creation facility on online shopping website. The correlation value of 0.559 is for the mode of payment offered by website to e buyers under this factor. The third factor extracted is Website quality. In case of this factor, the correlation values are 0.762, 0.819 and 0.593 for the variables well organized information presentation, completeness of information presented and visual presentation of product displayed. The highest correlation value is for completeness of information presented under third factor.

Conclusion

After the development of Information and Communication Technology, the trend of using online shopping is increasing day by day. Globally, the number of online buyer is increasing at a very fast pace.

There are many factors which work behind converting an e shopper into an e buyer. One among them is website design of an online seller. It represents first interface for interaction between e buyer and e seller. Therefore, it is very important for e-seller to be aware of e-buyers perception about factors underlying a website design. The result of this study highlights three factors namely website fulfillment, Website features and Website quality associated with website design of e-sellers. An e seller is required to pay proper attention to all these three factors while designing its' online shopping website. Ignorance of these factors will lead to negative change in perception of e buyers regarding design of an online shopping website which will result in buyers switching to competitive shopping websites.

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