

Factors Influencing Customer Satisfaction with Usage of Shopping Apps in India

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Abstract—Over the past few years, there has been a ongoing transformation in the customer purchase patterns from offline channels to online channels. With the growing use of smart devices, Apps are fast catching up as a preferred mode to conduct online shopping. From startup to MNC's, companies are mainly targeting Apps, and it is easy to track and analyze the marketing data to generate more revenue with the help of shopping apps. An important question to ask in this context – and the focus of this study - is what factors influence customer satisfaction with shopping Apps? The data for this study was collected from 167 people throughout India and analyzed by using STATA software (Ordered Logistic method). Our results show that Design aesthetics, Information quality and Image appealing all significantly influence customer's satisfaction with usage of shopping apps in India.

Index Terms— Customer satisfaction, Design Aesthetics, Image Appealing, Information Quality, Shopping App(s), Privacy/Security

I. INTRODUCTION

E-commerce is one of the upcoming high potential sectors in India. In future, E-commerce might enhance rapidly throughout India. Internet is a part of day to day life for most of the citizens. Today, the entire world runs behind the internet in a smart way. By the year 2034, India is expected to become a second-largest e-commerce player in the world [1]. There has been an exponential growth in the usage of social media over the past decade in India in urban and rural areas as well.

Online shopping is defined as a place where customers buy the products or services on the internet by using different electronic devices. Ease of use, money-saving, time-saving, convenience, 24 hours' accessibility, availability of different brands of products, ease of comparison are some benefits that buyers would avail upon using shopping apps. At present, most of the companies are using different portals (Website and Application) to attract the customers as well as developing digital shopping over traditional shopping. Mobile applications are becoming

popular and many companies are focusing on the app design as it emerges to be a win-win situation for both the parties (Customer and Company). Mobile application traffic is far ahead of website traffic in engaging the customers. Based on the design aesthetics, image appealing of products, content quality of products, services and privacy/security offered, customers are showing interest to use the apps. This sort of marketing plan is anticipated to expand further sales. A lot of people are spending more time on their mobile phones and applications [3]. Android users have 1.6 billion [4] apps and for Apple's store 1.5 billion apps. Currently, mobile applications have become one of the most important factors in customer's daily lives and turned up to be a major channel in India. This study mainly focuses on the factors which influence the customer satisfaction towards usage of shopping app(s) in India.

II. LITERATURE REVIEW

A. Customer satisfaction

Satisfaction is defined as users' opinion and affective reaction or feelings to the overall products and services or their experiences towards the usage of e-commerce portals [5]. At present age, usability and satisfaction on mobile applications are the major important factors. According to Szymanski and Hiss [6] conceptualize e-satisfaction as a universal measure of satisfaction with the Internet shopping, deliberated both qualitatively and quantitatively using a sample of knowledgeable online shoppers. Rolph E. Anderson and Srini S. Srinivasan [22] in their research described that the pleasure of the customer with respect to male or female initial purchasing occurrence with a given e-commerce business. In our research, we look at the factors (Design Aesthetics, Information Quality, Image appealing, Privacy/Security) as important influences on customer satisfaction with usage of shopping App(s).

B. Design Aesthetics

It is a common experiential factor in the shopping environment. To enhance the customer visit, most of the companies are concentrated on the user interface design to keep more visual attention [7] and to satisfy the customer. In the previous studies, J.J Garrett [9] explains that visual design is an emotional appeal that is expressed with different

sorts of music, animations, color, text and font. This factor mainly refers to the emotional appeal and balance of the shopping sites. Such design elements play a major role to enhance the user behavior and enjoyment towards browsing on the shopping app(s). Extant research suggests that a salient relationship between design aesthetics and enjoyment, ease of use and usefulness towards the m-loyalty [8]. Therefore we hypothesize that design aesthetics positive will positively influence customer satisfaction towards the usage of shopping app(s) in India.

H1: Design Aesthetics will positively influence the customer satisfaction towards the usage of shopping app(s) in India.

C. Information Quality

Information Quality refers to the updated and accurate information provided on a website about the products or services [10] by its users. Good content gives more value and keeps more attention and interest. In the primary stage, where the visual design appearance may capture consumer interest, but without a valuable content, customers may not be persuaded to do online shopping. If the information is clear and relevant to the customer, it keeps their attention and increases their likelihood for browsing for products or services. Existing research has shown that information quality crucially affects the success of online business [12] because it impacts the customer decisions on online shopping. According to the Park and Kim [2003], information quality directly affects customer satisfaction [11]. In this study, we hypothesize a positive relation between information quality and customer satisfaction.

H2: Informational Quality will positively influence the customer satisfaction towards usage of shopping app(s) in India.

D. Image Appealing

It is an important factor for e-commerce sites. The effective images can bring about a consumers' positive emotional experience on the shopping portals. According to the Burke 2002 [13], captivating product images make the shopping experience more fun and interesting while browsing the product images. According to cognitive appraisal theory of emotion, cognition governs emotion [14] and influences eventual action. Image appeal affects the experiential element of shopping apps. If the image appeal is low, the customers feel less motivated to browse the product through the shopping app(s). Previous studies have found that Image appeal positively influences the enjoyment towards online shopping websites [23]. In this study, we expect a positive relation between image appeal and customer satisfaction.

H3: Image Appealing will positively influence the customer satisfaction towards the usage of shopping apps in India.

E. Privacy/Security

Privacy/Security is a multi-dimensional concept. For example it refers to both the security of the data transaction

as well as the authentication of the user. The increased opportunities to capture personal information and online shopping habits and the potential opportunity for exploiting this information has increased the degree of privacy risks through online shopping [15]. A strong privacy/security policy keeps the personal information confidentially, due to this, it increases the company fame and turns into a positive perception users towards on the quality App(s). It keeps the personal Information of the customers from any unofficial use of the data or information revealed during the electronic transaction [16] like through from Debit card, Credit card or Net Banking. From the existing studies, Leo R Vijayasarathy [2] examined the relationship between privacy/security and attitude towards online shopping and the result of privacy/security is positively influences attitudes towards the online shopping websites. In our study, we examined the relationship between information quality and customer satisfaction. Therefore, the following hypothesis evaluated as:

H4: Privacy/Security will positively influence the customer satisfaction towards the usage of shopping app(s) in India.

F. Age & Gender

The pattern of using shopping app varies across the Gender and Age. Hence it is sensible to understand the relationship between Gender, Age and Customer satisfaction towards usage of shopping app(s). Traditionally, it differs between Male and Female towards the usage of shopping apps. India is a land of varied with different cultures and emotions. Depending on the Age group and Gender, the customer perception towards usage of shopping apps might differ.

H5: Age has significant impact on customer satisfaction towards the usage of shopping Apps.

H6: Gender has significant impact on customer satisfaction towards the usage of shopping Apps.

III. CONCEPTUAL MODEL

Based on the substantial review of the literature, this study suggests the following conceptual model that helps to perceive the different factors that which influences the customer satisfaction towards the usage of shopping apps.

IV. RESEARCH METHODOLOGY

A. Data Description

For this study, the number of respondents are 167, of which 61% are Male and 38.3% are female and data collected across various age groups, occupation status across India. 91% of the respondents, who has experienced the shopping App(s) are preferred for the analysis. The data collected during the months of November and December 2016

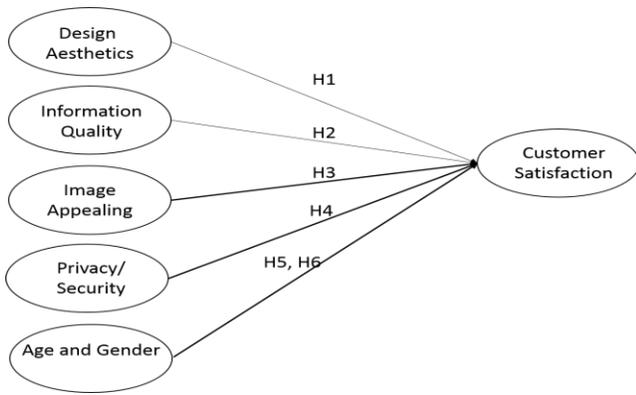


TABLE I: DESCRIPTION OF SAMPLE

Age Category	Female	Male
	0	0
18-24	51	40
25-34	39	16
35-44	2	3
45-54	0	0
55 & above	0	0
Grand Total	92	59

B. Questionnaire Development

The questionnaire evolved and online survey regulated to understand this study. It has 4 divisions, the first division was on the experience towards the usage of shopping apps and if the respondents haven't experienced, it moves directly into the fourth division. The second division is about experience of shopping app, devices preferred, payment method, most preferred shopping app.

For this third division, to test the various constructs, they are modified from the existing papers and evaluating the standardized scales are Design Aesthetics [17] [18], Information Quality [19], Image Appealing [20], Privacy/Security [21], and Customer satisfaction [22]. All these factors are evaluated with the 7 Points Likert scale ranging from strongly disagree '1' to strongly agree '7' and asked the respondents to prefer shopping applications based on their experience. The fourth division was on age, gender, marital status, occupation and internet usage. For this study, to evaluate the various constructs, they are modified from existing papers.

C. Empirical Model

The following empirical model was used to test the hypothesis:

$$CS: \beta_0 + \beta_1(DA) + \beta_2(IQ) + \beta_3(IA) + \beta_4(PS) + \beta_5(Gender) + \beta_6(Age) + U$$

Where,

CS: Customer satisfaction towards usage of shopping Apps in India

DA: Design Aesthetics

IQ: Information Quality

IA: Image Appealing

PS: Privacy/Security

U: Error term

The model estimated by using **Ordered Logistic Regression** in STATA software. This was preferred as the customer satisfaction towards the usage of shopping apps in India evaluated on a 7 – Points Likert scale from “strongly Disagree” to “Strongly Agree” and measured from 1 to 7 respectively. The results of the Ordered Logistic Regression are given in Table II.

V. RESULTS

According to the model estimates, results have shown that Design aesthetics, Image Appealing, and Information quality seems to have a positive significant impact on customer satisfaction towards the usage of shopping app. But the Privacy/Security seems to have a negative impact on customer satisfaction towards usage of shopping apps. Among these variables, Image Appeals is found to have a highest impact and has 3 times higher influence than the other factors on customer satisfaction. Design Aesthetics and Information quality has 2 times higher influence than the rest of the factors on customer satisfaction. There was no significant difference found on Gender and Age towards usage of shopping app(s). Based on the results, we found that importance of image appealing, Information quality and Design Aesthetics are the major important factors for online shopping.

Table II. RESULTS OF Ordered Logistic Regression

Independent Variables	Results of the Regression model		
	OR	Coefficient	P- Value
Design Aesthetics	1.154	.1434**	0.021
Privacy/Security	1.039	.03906	0.292
Image Appealing	1.662	0.5080***	0.000
Information quality	1.191	0.1749**	0.022
Age group	0.9234	-0.0793	0.794
Gender	0.8448	-0.168	0.597

a. Note: ***, ** imply significance at the 9% and 5% level respectively

VI. LIMITATIONS & FUTURE RESEARCH

The study mainly focused on factors which influences the customer satisfaction towards usage of different shopping apps in India. This study also can be done by comparing different devices usage for online shopping among male and female with different age groups.

VII. CONCLUSION

This paper attempts to evaluate the factors, influencing customer's satisfaction towards the usage of shopping Apps in India. The key factors like Design aesthetics, Image appealing, Information quality, Privacy/security were found to have a significant impact on customer satisfaction towards the usage of shopping apps in India. In a shopping app, Image appeals and Information quality are found to be the

most important factor. As of now, most of the companies from startup to MNC's are using different portals to attract the customers. The ease of using apps with respect to Design aesthetics, Informational quality, Image appealing and Privacy/security; motivates the customers to get inclined towards them. The study also reveals that, most of the people are concerned about the transactions safety and user profile details on shopping apps. Hence, we could figure out the probable impact factors in engaging the customers with mobile apps frequently.

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