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Dr. Arif Hussain Haidary
Assistant Professor, University
of Delhi, Delhi, India

Assessing determinants of online customer satisfaction and e-loyalty among young consumers

Dr. Arif Hussain Haidary

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Abstract

As per the IMAI report, the Indian internet economy was projected to reach a value of \$200 billion by the year 2020, contributing five percent to the country's GDP. At that time, India boasted approximately 300 million internet users and was on track to surpass the United States as the world's second-largest internet user base. In accordance with Nelson's research from 2012, contented customers have a tendency to share their positive experiences with a company among others. Consequently, the objective of this study was to assess the factors influencing online customer satisfaction and how this satisfaction subsequently impacts the e-loyalty of young consumers towards online shopping. A total of 150 responses were randomly collected from individuals located in the Delhi-NCR region, and the entire data collection and analysis process spanned approximately one month. A structured questionnaire was employed to gather information from respondents, and the data was subsequently analyzed using the Statistical Package for the Social Sciences (SPSS). The data's reliability was confirmed, and hypothesis testing was carried out through regression analysis. The findings of this study indicate that elements such as website design, security measures, and information quality significantly influence customer satisfaction. Furthermore, customer satisfaction has a positive effect on e-loyalty. Conversely, the study also revealed that the quality of e-services did not have a significant impact on customer satisfaction. Overall, the results of this study can offer valuable insights to marketers for the development and implementation of effective online marketing strategies, as well as in the decision-making process.

Keywords: Website design, information quality, e-service quality, security, customer satisfaction, e-loyalty

Introduction

According to IMAI report, India internet economy will grow to US\$200 billion by 2020 and will contribute five percent to the GDP of the country. The report also mentions that the country's Internet user base will cross 500 million by 2018, with rural internet being almost 210 million. India currently has about 300 million internet users and is expected to overtake the US as the second largest internet user in the world soon. The fierce online competition and the insecurity to sustain for longer in the online marketplace has forced the online company to think beyond to the technical aspect of conducting an online business to a better understanding of behavioral aspect of customer.

So in order to remain competitive online companies needs to know effective ways to satisfy its customers. Since high number of online customer tends to indicate that customer satisfaction as key factor to higher profitability (Guo *et al.* 2012) ^[33]. A satisfied customer tends to share his/her positive experience with other people (Nelson, 2012) ^[22]. Therefore it is significant for online business to take into account their customer satisfaction because that will help in retaining customer loyalty, and as well help in attracting more potential customer to shop online (Guo *et al.* 2012) ^[33], without customer loyalty, even the well-designed business will get collapsed (Anderson 2003) ^[28]. Therefore in quest to develop a loyal customer most of the companies strives to satisfy their customer and develop a long-run relationship with them.

understanding the factor that influences customer satisfaction is not just of importance for long term relationship but is also important for organizational profitability, hence understanding the fundamentals of factors influencing online customer satisfaction is of great important to e-commerce (Patterson *et al.* 1997; McKinney *et al.* 2002) ^[27, 20].

Corresponding Author:
Dr. Arif Hussain Haidary
Assistant Professor, University
of Delhi, Delhi, India

Previous researchers have examined many different factors influencing customer satisfaction and the relationship between customer satisfaction and loyalty (Anderson *et al.* 2003; Guo *et al.* 2012; Sri Astuti Pratminingsh, Christina Lipuringtyas, and Tetty Rimenta 2013; Izyan *et al.* 2014) ^[28, 33, 30, 11]. Nevertheless the empirical research on factor influencing customer satisfaction and the relationship between customer satisfactions is very limited in context to Indian online shopping environment.

The study aims to examine factors that influences customer satisfaction in online shopping in India, especially amongst the youth's generation ranging from 18-35 year old. Furthermore, this study also examines the relationship between customer satisfaction and e-loyalty. In order to examine factor influencing customer satisfaction this study take in consideration factors such as Website design, security, E-service quality, Information Quality.

Literature review

Customer satisfaction

Customer satisfaction in online shopping is one of the crucial factor to retain their customer intake. Customer satisfaction can be defined as a consumer's comparison of its feeling of pleasure or disappointment resulting from product performance in relation to his/her expectation from the product (Kotler 2010) ^[24] According to (Syed & Norjaya, 2010) a satisfied customer intends to do more shopping from the same retailer if his expectation were met by the product performance. While according to (Anderson *et al.* 2003) ^[28] defined satisfaction of a customer as contentment with respect to his/her prior experience with the firm. Satisfaction in online marketing can also be defined as customer judgment between its offline experience and online experience of shopping (Tan *et al.* 2009) ^[9]. Customer satisfaction is an important antecedents for customer loyalty in online shopping (Kotler 2010) ^[24]. Identifying the factors influencing customer satisfaction is important as it acts as a benchmark of the business performance, and also serves as an instrument for future growth (Alam & Yasin, 2010) ^[1]. (Anderson *et al.* 2003) ^[28] in his study identifies two level of factor (i.e individual level and business level factor) that accentuate or reduce the impact of e-satisfaction on e-loyalty their research result indicated higher the level of satisfaction higher the level of loyalty. (Hizza *et al.* 2014) ^[11] have identified four factors influencing customer satisfaction which subsequently effect e-loyalty which are website design, security, E-service quality, information quality. While (Guo *et al.* 2012) ^[33] have identified eight determinants of customer satisfaction which are website design, security, information quality, payment method, e-service quality, product quality, product variety and delivery services, finding of the research study indicated that all the eight factors are positively related to consumer satisfaction towards online shopping in china. On the other hand (Mustafa 2011) ^[21] presents four factor which are user interface quality, information quality, perceived quality and perceived privacy which influence customer satisfaction. For the purpose of this study, the influence of website design, security, e-service quality and information quality are taken in account to examine its effect on customer satisfaction and subsequently its effect on e-loyalty in online shopping.

Website design

Website design play a critical role in online shopping, it not only satisfies a customer to do its business easily but also leaves a great impression in customer mindset. The characteristics of the website design determines customer perception towards the online store, and this perception is significant especially for the first time user and to impose reliability of the website in mindset of the customer (Guo *et al.* 2012) ^[33]. Customer satisfaction in online shopping is related to quality of the website design (Cyr, 2008) ^[6]. However in their research study by (Izyan *et al.* 2014) ^[11] website design was found insignificant towards customer satisfaction. Website design have a vital role to play in online shopping and in assisting its customer in locating the information easily. As stated by (Luo *et al.* 2012) ^[19] a well-designed website reduces the time of information search and avoid the possibility of mismatch, further in his study it was pointed out that an effective website design adds value to customer experience which helps a low visible retailer to focus over the post purchase satisfaction process, which eventually maximizes customer satisfaction in return. (Cyr 2008) ^[6] in his study used information design, navigation design, visual design, as an antecedents of website satisfaction and e-loyalty and found that navigation design and information design is positive influence on customer satisfaction. This is supported by the research by (Guo 2012; Mustafa 2011) ^[33, 21] who also found that website design is positively related to customer satisfaction. Based over the above studies, the first hypothesis is postulated.
H1. Website design has positive influence on customer satisfaction.

Information quality

Information quality is concerned with the reliability and authenticity of the information that is prevailing on the website. (Kateranttanakul 2002) ^[15] in his study have argued that the reliability and authenticity of website information tends to minimize the perceived risk of customer which in result drives a customer to make a better decision and in turn influence customer satisfaction and the intention to do shop online. (Christy & Mathew 2005) identified four dimensions of information quality which have significant impact on consumer satisfaction and they are namely accuracy, content, format and timeliness. Besides it (Liu *et al.* 2008) ^[18] have evaluated information quality based upon four different dimensions namely, information comprehensibility, information completeness, information relevance and information accuracy, and have stated that higher the level of information will improve customer satisfaction in online shopping. While (Guo *et al.* 2012) ^[33] identified four dimensions of information quality which includes accuracy, content, format and timeliness. The finding of the result indicates that information quality has significant impact on customer satisfaction. This is supported from (Guo *et al.* 2012; Izyan *et al.* 2014) ^[33, 11] research studies which also indicated information quality influence customer satisfaction.
Park and Kim 2003 ^[26] defines information quality based on how customer perceives the quality of information provided by the online retailer. The quality information plays a crucial role in customer purchasing process as this not only helps in saving time and effort but also ultimately helps in increasing customer level of satisfaction towards to the online retailer website. Taking in account the quality of website information the second hypothesis is postulated.
H2 Information quality has positive influence on customer satisfaction

E-Service quality

(Santos 2003) ^[29] Defines e-service quality as “overall customer evaluation and judgment regarding the excellent and quality of e-service delivery in the virtual market place”. (Parasuraman *et al.* 2005) ^[25] Refer e-service to “the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products and services”. Service quality is more important in online shopping because of its only interface between customer and seller is the website. Service quality has a direct impact on customer in keeping strong and loyal relationship with online retailer (Izyan *et al.* 2014) ^[11]. Online retailer with excellent service quality enjoy the advantage of learning their customer expectation more, thus enhancing their level of satisfaction. (Luo, Ba and Zhang 2012) ^[19] In their study explains one the greatest challenge in online shopping environment is customer low visibility towards the online retailer, therefore by providing an exceptional e-service quality, will help in bridging the gap between the online retailer and customer and consequently increase its visibility among the customer.

(Norizan *et al.* 2008) ^[23] have indicated in their study a positive relation of perceived service quality to have a direct positive effect on customer satisfaction in online shopping. This is supported by Guo *et al.* 2012 ^[33] research survey done in china, the survey result also indicated service quality has positive influence on customer satisfaction. (Kuang-Wen Wu 2011) ^[32] Examined in their study the relationship among e-service quality, satisfaction, e-recovery service quality and customer loyalty in online shopping, the finding of the study indicated e-service quality has no direct effect on customer satisfaction but had indirect positive effects on customer satisfaction. However the finding from (Izyan *et al.* 2014) ^[11] is contradicted with the argument from (Kuang-Wen Wu 2011) ^[32]. (Izyan *et al.* 2014) ^[11] in his study examined four factors that include website design, security, e-service quality information quality influencing customer satisfaction which subsequently effect e-loyalty in Malaysia, the survey result indicated e-service quality have a positive effect towards customer satisfaction. This is also supported by (Guo *et al.* 2012) ^[33] who also found in their study conducted in china, e-service quality is positively related to customer satisfaction. Therefore it is important to have an effective service quality which ultimately will increase customer satisfaction. Hence third hypothesis is postulated.

H3. E-service quality has positive influence on customer satisfaction.

Security

Security is one of the biggest obstacle in the development of e-commerce (Furnell and karweni 1999; Chou *et al.* 1999; Dong-Her *et al.* 2004) ^[10, 3, 8]. The reason for this is internet vulnerability to the risk of financial data might be intercepted and put to fraudulent use (Jones *et al.* 2000) ^[13]. A stronger attributes of security minimizes the perceived risk of customer which results into increase of customer satisfaction level. (Christy and Mathew 2005) have defined security as the ability of the website in protecting consumer private information received from its electronic transactions from unauthorized use of disclosure. (Chellapa, 2002) ^[2] in his study found that 61% of the online customer are willing to continue online transaction if they are assured that their private information are protected safely. Security reflects the perception related reliability of the payment methods

used and the mechanisms of data transmission and storage (Kolsaker and Payne 2002) ^[16]. Security in online shopping is one the most concert factor that causes reluctance among online customer at sharing their private information. (Izyan *et al.* 2014) ^[11] having a trusted website with an effective and exceptional security system helps in developing a sense of deep confidence and eventually leads to satisfaction. However in a research survey conducted in Malaysia by (Izyan *et al.* 2014 and Boon Liat CHENG 2014) ^[11] it was found that Web design and security were insignificant towards e-satisfaction. While (Szymanski and Hise 2000) ^[36] in their research study have suggested convenience, merchandising (product offering and product information), website design and security to be playing an important role in customer satisfaction assessments. This is supported by (Christian and France 2005) ^[4] they have identified three categories of factors as keys to influence customer satisfaction, which including technological factor, shopping factor and product factors, security was identified under technological factor, the study reconfirmed security positive relationship towards satisfaction. Having a strong security system helps in reducing customer insecurity of losing control over its account. Hence the fourth hypothesis is postulated.

H4: security has positive influence on customer satisfaction.

E-loyalty

Loyalty plays a very critical role in success of any organization and customer loyalty becomes more significant especially when customer accusation cannot alone guarantee a long term success for an organization (J. Flint, C. Blocker, and P. Boutin, 2011) ^[12]. Customer loyalty is crucial in today-modern days for mainly two reasons, firstly customer are a scarce resources, it is easier to obtain purchase from an old customer than from a new one (Rosenberg and Czepiel 1983), secondly customer loyalty have a great impact on the success and profitability of the company as suggested by (Edvardsoon *et al.* 2000; Naidu *et al.*) ^[37] in their empirical studies.

Previous researches mostly indicated a positive relationship between satisfaction and loyalty (Dick and Basu 1994; Anderson *et al.* 2003; Pratminingsih *et al.* 2013; Izyan *et al.* 2014) ^[28, 11] however both the concept satisfaction and loyalty has been a subject of many confusion from both the researcher and professional end (O' Malley 1998). Not all the researches agreed to same opinion that satisfaction is key determinant of loyalty. As demonstrated for instance by Reichheld 1994 a customer who claims satisfied may still ceases to be loyal, conversely loyal customer are not always satisfied one although satisfied customer do tends to be loyal (Fornell 1992; Oliver 1999; Gommans *et al.* 2001) ^[38-40].

There are several of the antecedents that have been suggested by the previous studies. (Anderson *et al.* 2003) ^[28]. Examining customer satisfaction and e-loyalty, has taken in account two of the factors namely a) individual factor which includes inertia, convenience motivation, purchase size, b) business factor which included which include trust and perceived value, the finding of the study indicated higher the level of e-satisfaction will bring greater e-loyalty. This statement is in line with (Pratminingsih *et al.* 2013; Izyan *et al.* 2014) ^[11] research study which also found e-satisfaction directly influence e-loyalty in online shopping. In view of this fact, in order to achieve customer loyalty, customer satisfaction needs to be achieved by providing its customer an excellent experience of online

shopping (Christodoulides & Michaelidou, 2011) [5]. Thus the fifth hypothesis is postulated as
 H5: customer satisfaction has positive influence on e-loyalty.

Methodology

Website design, security, e-service quality, information quality, customer satisfaction and e-loyalty were six variable used to test the hypotheses. A random sample size

of 150 respondent were received from the age group of 18-35 across Delhi-NCR, scale adopted for data collection were considered reliable, as Cronbach's Alpha value for these scales and measurements are above the recommended threshold value at 0.7 (Pallant, 2007) [41]. In order to analyze the data and examine the hypothesis SPSS 21 was used. Linear regression was used to confirm the hypothetical relationship of variables.

Analysis

Table 1: Demographic

Demographic z value	Details	Frequency	Percentage (%)
Gender	Male	106	71%
	female	44	29%
Age	18-23 year old	74	49%
	24-29 year old	67	45%
	30-35 year old	9	6%
Education Level	Under Gradaute	23	15%
	Graduate	25	17%
	Post Graduate	99	66%
	Others	3	2%
Frequency of online shopping	At least once a week	19	13%
	Once a month	48	32%
	Once every 2-3 month	54	36%
	Once every 4-5 months	20	13%
	Twice a year	9	6%

Table 1 demonstrated above indicates the summary of demographic profile of the respondents from Delhi-NCR. As shown in the table 1, 71% of the respondents are male, and 29% of them are female. In term of the age group, the majority of the respondents are between 18-23 (49%), followed by age between 24-29 (45%) while only 6% from the age group of 30-35. Further in term of qualification of the respondent it was found that 66% of respondent are from post graduate followed by 17% graduates, 15% under

graduate, 2% of others. Additionally the response to online purchase frequency, data indicates respondents of this study familiar to online shopping, as 36% of the respondents do online shopping once every 2-3 month, followed by 32% responded to once a month, whereas 13% of the respondents do online shopping every 4-5 month, 13% once a week and 6% twice a year.

Table 2: Descriptive Statistics

Variables	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach alpha
WebDes	3.8022	.66622	-.250	-.459	.837
Iqual	3.5867	.73063	-.470	.479	.829
Squal	3.7382	.70841	1.506	7.881	.848
Sec	3.4800	.83270	-.121	-.390	.841
Cussat	3.7352	.61693	.045	-.448	.824
El	3.6689	.79778	1.255	9.940	.853
Valid N (listwise)	150				

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Table 3: Coefficients summary (customer satisfaction as dependent)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.013	.209		4.857	.000		
	WebDes	.227	.068	.245	3.348	.001	.510	1.962
	Iqual	.169	.062	.200	2.709	.008	.499	2.003
	Squal	.006	.058	.006	.096	.924	.625	1.600
	sec	.354	.047	.478	7.536	.000	.681	1.469

According to Bruin (2006) [42], tolerance value exhibits the percentage of variance in the predictor that cannot be accounted for by other predictors. Tolerance values that is more than 0.1 indicated that the variable has a high tolerance level thus the predictors are redundant. Based on the results depicted in table no 3, all independent variables have tolerance greater than 0.1. They are Website design (.510), security (.681), e-service quality (.625), and information quality (.499). Meanwhile, all independent variables does not display any multi-collinearity problem because all variables inflation factors (VIF) are not more than 10 (Robert, 2007). The VIF values for these valuables are: Website design (1.962), security (1.469), e-service quality (1.600) and information quality (2.003).

Referring to Table no 3, the relationship between website design and customer satisfaction were found significant at 5% significance level hence H1 is accepted, the t-statistic for website design construct is 3.348 and beta coefficient is 0.245. Similarly information quality positively impact customer satisfaction with beta value 0.200 and t statistics is 2.709. Hence H2 is accepted. Furthermore service quality does not influence customer satisfaction. As the P value (0.924) greater than 0.05. Hence H3 is rejected. Whereas security and customer satisfaction indicated a positive relationship as beta value is 0.478 and t statistics 7.536. Hence H4 is accepted. Data analysis demonstrate security as a major variable to impact customer satisfaction among other considered variables.

Table 4: Coefficients (Loyalty as dependent)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.986	.335		2.947	.004
	Cussat	.718	.088	.555	8.125	.000

In addition to the above analysis, the study further examines the impact of customer satisfaction on e-loyalty in table 4. The result of the analysis indicated a positive relationship between customer satisfaction and e-loyalty (p<0.000, beta =0.555, t=8.125). Hence it is statistically proven that H5 is accepted.

Discussion and implementation of the study

The result for the first relationship between website design and customer satisfaction is in line with (Liu *et al.* 2008; Guo *et al.* 2012) [33, 18]. (Liu *et al.* 2008) [18] in their study "an empirical study of online shopping customer satisfaction in china: a holistic perspective" done in china has identified eight construct that impact customer satisfaction namely information quality, website design, merchandise attributes, transaction capability, security/ privacy, payment, delivery, and customer service. Finding of the study indicated that all the construct are strongly predictive of customer satisfaction in online shopping. While (Guo *et al.* 2012) [33] in their research study in china identifies eight of the factors that influences customer satisfaction towards online shopping namely, website design, security, information quality, payment method, e-service quality, product quality, product variety and delivery service. Finding of the study indicated that all the factors has positive influence on customer satisfaction. Hence, in Hypothesis 1, there is high significant acceptance of website design positive influence on customer satisfaction.

The relationship of information quality and customer satisfaction is in line with (Liu *et al.* 2008, Izyan *et al.* 2014) [18, 11]. (Lin 2007) [17] in his study explains the significance of

information quality in online retailing. It further states that online retailer should be informative and at the same time provide information accordingly to meet the customer's need and expectation. Online retailers must provide up to date, accurate and reliable information for its users so to meet their expectations and needs which ultimately will lead to satisfaction. (Delarosa and Susilo 2013) [7] also in his finding indicated a positive relationship between information quality and customer satisfaction. It explains the significance of information quality to not for just search product information but also it's important for the evaluation of the retailer stage. It further explains that information provided by the website helps a customer in making purchase decision. Hence the information provided at the website should not be confusing and make a customer feel puzzled with its information. Thus a good quality of information quality leads to an easy decision making to purchase and purchase habit, which ultimately leads to customer satisfaction.

The result of relationship between e-service quality and customer satisfaction is not in similar result to (Chang, Wang and Yang 2009; Liu *et al.* 2008, Luo, Ba and Zhang 2012; Guo *et al.* 2012; Izyan *et al.* 2014; Ting *et al.* 2016) [43, 11, 33, 31]. According to (Luo, BA and Zhang 2012) [19] one of the foremost challenge in online retailing is the lacuna of low visibility for customer towards to the product available online, the absence of feel and touch the product in online retailing can only be bridged with providing an effective and efficient service quality to its customers. E-service not just include the pre purchase stages but all involves the post purchase activities also. (Chang *et al.* 2009) [43] in his study emphasis various means to communication so to reach and give its customer prompt reply to any complain. A diversified ways of communications would give customer more flexibility and convenience to reach its customer. Despite of various previous studies supporting the e-service quality and e-satisfaction positive relationship, however finding of this study indicated an insignificant influence of e-service quality on e-customer satisfaction.

The result found in relationship between security and customer satisfaction is in similar line with (Guo *et al.* 2012; Liu *et al.* 2008) [33, 18]. (Christy and Matthew 2005) [34] Defined security as the ability of the website in safeguarding customer's personal information. (Christian and France 2005) [4] where they identifies three categories of factors influencing customer satisfaction, in which technological factor, shopping factor, and product factor was included. Security was identified under technological factor. Finding of the study reconfirmed the positive relationship between security and e-satisfaction. (Liu *et al.* 2008) [18] in their study "an empirical study of online shopping customer satisfaction in china: a holistic perspective" done in china has identified eight construct that impact customer satisfaction namely information quality, website design, merchandise attributes, transaction capability, security/ privacy, payment, delivery, and customer service. Finding of the study indicated a positive relation of security with customer satisfaction. Based on the findings it is suggested for online retailers to provide a trusted security system to its consumer so to form a trust among its website users.

The result of the relationship between customer satisfaction and e-loyalty is in similar line of agreement who also found higher the level of customer satisfaction would lead to higher loyalty (Izyan *et al.* 2014; Mustafa 2011; Valvi *et al.* 2003; Ting *et al.* 2016; Pratminingsih *et al.* 2013; Lin *et al.*

2009)^[31, 21, 44, 11,]. It is of crucial in online retailing to satisfy its customer in order to retain them to be loyal towards to the website. When a customer need is fulfilled it leads to greater e-loyalty (Morgan & Hunt, 1994; Zins, 2001)^[45, 46]. A satisfied customer has the tendency to repeat purchase or be loyal to the same online retailer if he is satisfied of its services (Lin, 2013)^[47]. This happens because a customer who had a good past experience believes that they will get excellent and satisfied service at on future purchases. Satisfied customer also tends to spread positive word of mouth among its known. Hence it's very important for online retailers to satisfy their customer need with enhancing their business feature, so to make its customer to visit and purchase for them again. Based on the finding, customer's satisfaction does positively influence e-loyalty. Therefore for online retailer to sustain and retain customer loyalty in such fierce competitive market place requires to pay more attentions towards to the factors that leads to customer satisfaction.

Limitations and future study

Like other previous studies, this study is also bound to certain limitations. The present study has limitations such as the sample size. The sample size for this study was 150 respondents only, thus might demonstrate less validity in its result. Further this study might be context specific. The respondents for this study were mainly from Delhi-NCR only where future researchers are advised to increase the sample size and also it is advised to increase the geographical reach.

Another limitation to this study is that for the survey questionnaire were provided in one language only that is English. Respondents who are not good with English might not have thoroughly understood the questions provided in the questionnaire, which could lead to misunderstand of the questions, resulting in less reliable set of data. Thus future researchers are advised to use other common languages that might receive more desirable data.

Further the survey was conducted only in offline format which might could vary from online format of survey. Future researchers are advised to either do their survey in both the online and offline or do only online so do get more valid responses.

Further for this study only the respondents ranging from 18-35 year old was taken in account, thus might demonstrate less validity in its result. Future researchers are recommended to take in account different age group to have more substantial result.

Conclusion

Three of the independent variable of online shopping features indicates a positive relationship with customer satisfaction namely, website design, information quality, security. Data analysis demonstrate security as a major variable to impact customer satisfaction among other considered variables. However it was found that e-service quality does not influence customer satisfaction among Delhi-NCR online customers. Additionally it was also found that customer satisfaction positively influence customer e-loyalty. Therefore, marketers or online retailers operating in India particularly Delhi-NCR can use these information in order to retain customer loyalty and also to fight for sustain in such fierce competition of online environment.

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