EFFECT OF E-SERVICE QUALITY ON CUSTOMER SATISFACTION: MEDIATING ROLE OF PERCEIVED VALUE

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ABSTRACT

The purpose of this paper is to measure the effect of basic service quality (E-S-QUAL) of e-shops on consumer satisfaction using E-S-QUAL scale. Also, the study examines the mediating role of perceived value on the relationship between E-S-QUAL and consumer satisfaction in the context of online shopping. Questionnaires were collected from 412 e-shoppers from all over India. E-S-QUAL scale developed by Parasuraman et al., 2005 is adopted without revision to measure service quality of e-shops. Statistical methods such as Multiple regression, PROCESS Procedure for SPSS Version 3.4 Macro by Andrew F. Hayes-2019 for Mediation a bootstrapping test were used to analyze the data. Two dimensions of E-S-QUAL scale such as fulfillment and privacy are significantly impacting the basic service quality rest of the two dimensions efficiency and system availability are not significantly influencing the perceived service value. It also found that perceived value fully mediated the relationship between E-S-QUAL and consumer satisfaction. The study helps the e-commerce industry to understand e-shoppers' perception about the service quality and the facts relating to recovery performance of the e shops. Also, it contributes to formulate the best attractive practices by the online shops in India.

Keywords E-commerce, E-S-QUAL, Perceived Value, Customer Satisfaction, Mediation, Paper type Research paper

INTRODUCTION

E-commerce has become a vital part of the global retail framework. With the development of science and technology and internet facility, retail landscape has undergone a considerable transformation like other industries. Number of digital buyers keeps multiplying every year. In the year 2019, an estimated 1.92 billion people bought goods and services through online and the E retail sales surpassed 3.5 trillion US dollars worldwide. The E retail sales are accounted for 14.1 percent of all retail sales worldwide.

India, the second-largest populated country in the world after China, is said to be back warded in adopting online business when compared to the countries like USA, France, and China etc. There are about 700 million Internet users in India and this is almost 50% of the total population. In the case of the USA it is around 90 percent of the country's population. In France, about 81 percent of the population and in china 58 percent of the population is using the internet facility. Around 330 million people are buying through online in the entire Indian population, this comes to 25 to 30 percent in Indian population.

Service quality is one of the most important driving forces, in addition to technology and consumer education, of e-businesses to achieve their goals in the retailing business, without which the business organizations may not be able to succeed in today's global and competitive business environment. Kabir and Carlsson (2010) opined that service quality is a linked with customer perceptions and

expectations and is essential for generating satisfaction in the minds of customer or consumer. Good service can prompt customers to spend more than they had planned. Satisfied customers are more likely to buy again. Customer satisfaction is the ultimate result of meeting a consumer's expectation from the performance of products as well as service rendered by the storekeeper. Most satisfied customers normally have the intention to re-purchase the products if product performance and service meets his or her expectation (Alam and Yasin, 2010) and the same trend can be observed in case of online retailing too. Service quality is one of the important aspects to attract customers in either online or offline retail business. Perceived service quality in online retailing influences customer satisfaction and purchase intentions.

The perceived value also plays very important role to satisfy the customers. In order to know the service value in the online marketplace, online stores need to provide the expected quality in service. It is important for online stores to provide basic services like Ease of accessing the website (Efficiency), Promised order delivery by online stores (Fulfillment). Active functioning of the site (System availability), Facilitate safe and security for the customer information (Privacy) to increase online shopper perceived value.

Service value, in any service organization especially in E-commerce, acts as an impediment as well as impetus for the growth and development of the online business. Failure in providing expected service to the customer leads to poor perceived value and customer satisfaction which in turn affect the on line sales. Hence, there is a need to find the influence of actual perceived value on customer satisfaction and reasons for poor service quality in online trading.

LITERATURE REVIEW

SERVICE QUALITY

Service quality became significant when the business people apprehended that the product quality alone is not enough to gain competitive advantage. Deriving a standard quality concept for service is difficult because of its nature and characteristics. Many researchers, practitioners and academics have explored the concept from different viewpoints. Quality of Service is depended on the perceptual tendency of the customer (Kucukaltan, 2007). The same service can be perceived as high by one customer and low by another. Perceived service quality is a result of the comparison of customer's expectations prior to receiving the service and his/her actual service experience. It is assessed by the direction and magnitude of the difference between customers' expectations and perceived performance (Zeithaml & Bitner, 2000).

In the views of Edvardsson (1998) service quality is the degree of being able to meet the customers' expectations and to determine their needs and wants. Kandampully (1998) gave a similar definition of satisfying the customer's expectations with the service provided. Teas (1993) defined service quality as the comparison of performance with ideal standards. In such a way, different authors tried to give different conceptual meaning to the quality of services. Some stated that service will come in to picture when the organization supplies goods and the customers are the right persons to define the service. Others simply defined quality as the satisfaction of customer expectations (Richard et al., 2009). One of the major contributions for service quality is by Parasuraman, Zeithaml & Berry (1985). They described service quality as the comparison of expected service and perceived service performance and they developed the SERVQUAL measurement technique to measure the service quality. Due to its sturdy impact on performance of the business, lower coat and customer satisfaction, the model developed by Parasuraman, and Zeithaml has got wider acceptance and used by number of practitioners, Mangers and researchers (Nitin and Deshmukh, 2005). Various service industries like banks, healthcare, telecommunications, retailing, information systems, libraries etc., have been practicing the SERVQUAL model.

The scale has also been applied in different countries, including the USA, China, Australia, Cyprus, Hong Kong, Korea, South Africa, the Netherlands and the UK (Riadh, 2009).

CUSTOMER PERCEIVED VALUE

Purchasing patterns of the customers depended on the value they give to the products or services. It plays a major role in influencing the purchasing behavior of the customers which in turn leads to competitive advantage (Ilias et al., 2012). The idea of creating value for customers is related to the fact that there are sensible differences between what customers want and what they get after having bought the product. The value offered to the customer is the difference between total customer value and total customer cost. In the view of Zeithaml (1988), customer value is "the consumers' overall evaluation of a product based on their perceptions. Customer value can also be seen as the difference between customer efforts to obtain value, and the total benefits from the service or product (Day, 1990). Cravens and Piercy (2003) opined that perceived value consists of benefits and costs resulting from the purchase and use of products. Keller (1998) believes that "consumers combine perception of quality with perception of cost in order to reach to an assessment of perceived value". The general idea that can be understood is that perceived value involves the relationship between customer and the product (Holbrook, 1996) which is strongly related to the utility or benefits the customer get in return for the money or any other cost they spend (Zeithaml, 1988) including both cognitive and affective aspect Holbrook and Hirschman (1982).

CUSTOMER SATISFACTION

Customer satisfaction can be said as a feeling which arises in a customer when a product or service performance meets or surpassed the prior expectations. "It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over fulfillment (Oliver 1997)". Halstead, Hartman, and Schmidt (1994) opined that the customer satisfaction is 'a transaction-specific affective response resulting from the customer's comparison of product performance to some pre-purchase standard'. In the words of Westbrook and Oliver (1991) it is a 'post-choice evaluative judgment concerning a specific purchase selection'

RESEARCH HYPOTHESIS

H_1: Online stores E-S-QUAL dimensions significantly influence the customer Satisfaction

H_2: Online shopper's perceived value significantly influences the level of satisfaction

H_3: Perceived Value mediates the relationship between the basic service quality and customer satisfaction of the online shoppers.

METHODOLOGY

Present study focuses on the mediating role of perceived value between basic service quality and satisfaction of online shoppers in India as Perceived Value is the major factor in convincing the customer to buy a product or service and also play a key role in satisfying the customer. For the purpose of the study, data has been collected from the online shoppers who purchase products from the Flipkart, Amazon, Snapdeal, Shopclues, Paytmmall, Myntra, Yebhi, Homeshop18, Firstcry, and Shopping.rediff as these platforms occupied a major chunk in the online market. Data has been collected by using the instrument developed by Parasuraman et al., (2005) for E-service quality and perceived value; and the scale developed by Lai et al (2009) was used for Customer Satisfaction. Sample size has been finalized by applying the Cochran's sample size formula as the population is unknown. The resulted sample size for the study is 384. Purposive Snowball sampling technique has been adopted for selecting the sample respondents. Likert's five-point Scale starting from Strongly

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Disagree to Strongly Agree for e-service quality and customer satisfaction and for the Perceived value, the scale ranging from Very Poor to Very Excellent was used. Around 1500 Instruments were e-mailed through Google form link to a comprehensive database and shared in different social media like Facebook, Twitter and WhatsApp to cover the target respondents who experienced recovery services like returning or replacement of products, contacted customer care for warranty issues and money refund, etc. 450 questionnaires were returned back and 412 questionnaires were found satisfactory and 38 were rejected. Therefore, the data has been collected from 412 respondents.

Demographic profile of the respondents reveals that majority of respondents were males (60.9%). Out of the 412 sample respondents, nearly 87.4 percent of online buyers in the age group of below 41 years and the married respondents are 214. In the case of educational qualifications, it is noticed that 338 are graduates and postgraduates remaining are intermediate and SSC qualified candidates. Among all the sample online shoppers, Private employees are more compared to government employees, businesspersons, and students. People who draw an amount of Rs. 50,000 to 75,000 do more online transactions compared to other income groups of people and the respondents drawing more than one lakh rupees of family monthly income do very a smaller number of online transactions. It is interesting to note that nuclear families show much interest in online business as 40.8 percent of the respondents are from nuclear families.

ASSESSMENT OF RELIABILITY

Table 1. Reliability Statistics

Constructs	Cronbach's Alpha
Basic service quality (E-S-QUAL)	0.886
Perceived Value (PV)	0.930
Customer Satisfaction (CS)	0.923

Table 1. reveals that the Cronbach's Alpha value is >0.7 and in acceptable range (Hair et al 2010). There are no reliability issues in the study.

EFFECT OF E SERVICE QUALITY ON PERCEIVED VALUE

The customer perceived value is the most important determinant in assessing the E-S-QUAL in online stores. The perceived value is influenced by the service quality aspects of the online stores. To measure the impact and influence of the online store's E-S-QUAL on customer perceived value, the hypothesis framed is "Online stores E-S-QUAL dimensions significantly influence the perceived value" and tested with Multiple Linear regression and shown in table 2.

Table 2. Regression Results for Perceived Value

Variables	R Square	F	Unstandardized Coefficients B	Std. Error	t	Sig.
EFF			.040	.061	.649	.517
FUL			.466	.039	11.829	.000
SYS	.727	271.192	.074	.043	1.715	.087
PRI			.454	.036	12.433	.000

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Dependent variable: Perceived value
Independent variables: Service quality dimensions such as Efficiency, Fulfilment, System availability and Privacy.

*Statistically significant (P < 0.01).

Multiple Regression was used to determine the impact of E-S-QUAL on the Perceived Value. Regression results in measuring the relationship between the dimensions of E-S-QUAL such as Efficiency, Fulfillment, System availability and Privacy as independent variables and Perceived Value as dependent variable explain that the R square in the Model summary is .727and predicting 72.7 percent of variance in the Perceived Value. F test results show that the model is statistically significant the unstandardized B coefficients for the independent variables Efficiency is .040, Fulfillment is .466, System availability is .074, and Privacy is .454, meaning that there is a positive relationship between the E-S-QUAL dimensions and perceived Value. Individually, Fulfillment and privacy variables have a statistically significant effect; and Efficiency and System Availability is not statistically significant effect on perceived value.

EFFECT OF ONLINE SHOPPERS PERCEIVED VALUE ON CUSTOMER SATISFACTION

Table 3. Regression results for Customer Satisfaction

Variables	R Square	F	Unstandardized Coefficients B	Std. Error	t	Sig.
Perceived Value	.810	1745.770	.861	.021	41.782	.000
Dependent variable: Customer Satisfaction						

*Statistically significant (P < 0.01).

Table 3 portrays the Regression output in measuring the relationship between the Perceived Value and Customer Satisfaction. It can be observed from the results that 81 percent of variance is predicted in the dependent variable, customer satisfaction as R square is .810. Hypotheses H_2 is accepted as the p value is <.05. The Unstandardized coefficient for the independent variable perceived value is .861. A positive relationship exists between the perceived value and customer satisfaction. It can be inferred that the Perceived Value influences the Customer Satisfaction.

MEDIATION ANALYSIS

Mediation test examine the indirect effect of independent variable on the dependent variable through a mediating variable. In the present study Simple mediation model is used using PROCESS macro for SPSS developed by Hayes (2018) with bootstrapping 5000 re-sampling analysis and casual step approach (Baron and Kenny, 1986). To test the mediation, a systematic procedure suggested by Baron and Kenny (1986) was followed.

Mediation Effect of Perceived Value on Customer Satisfaction

The study considered E-S-QUAL as Independent variable, Customer Satisfaction as dependent variable and Perceived Value as Mediating variable. The formulated hypothesis is:
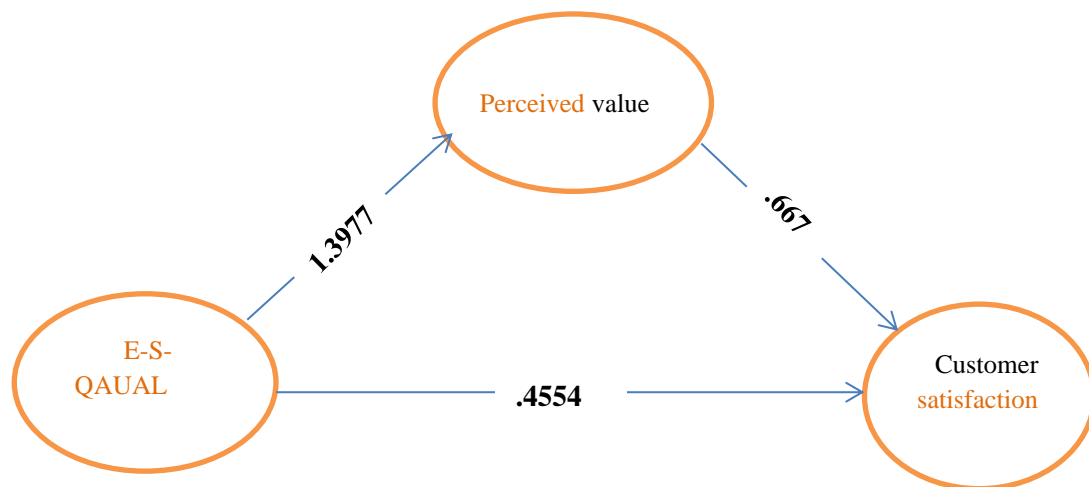
Unstandardized path coefficients for this portion of the model

Figure 1. The mediation model

Table 4.Total, Direct, and Indirect Effects

Total effect							
Effect	se	t	p	LLCI	ULCI	c_psc_cs	
1.3883	.0514	27.0255	.0000	1.2873	1.4892	2.0920	.8003
Direct effect							
Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
.4554	.0543	8.3937	.0000	.3487	.5620	.6862	.2625
Indirect effect(s)							
	Effect	Boot SE		Boot LLCI		Boot ULCI	
PV	.9329	.0688		.7953		1.0677	

The unstandardized indirect effect (.9329) of Perceived Value is calculated with the product of paths a (1.3977) and b (.6674). The indirect effect is tested by using bootstrap standard errors and confidence intervals. The results indicated that e service quality has positively associated with customer satisfaction and has a direct effect on customer satisfaction. For each one-unit increase in service quality there will be .45 increment in customer satisfaction. Estimates of the indirect effect indicate that customer satisfaction is expected to increase by .93 units for every one-unit increase in service quality through a mediating (indirect) variable perceived value. The indirect effect (IE=.9329) is statistically significant as the '0' falls between the lower and upper bound of 95% confidence interval

(lower limit .7953, Upper limit1.0677). It is concluded that the Basic service quality has indirect relationship through perceived value with staggering 67.19 (Indirect effect/ Total Effect X100) percent than the direct relationship. Hence, the proposed hypothesis (H3) is accepted.

DISCUSSION

The study is aimed to find the relationships between e service quality and customer satisfaction through a mediating variable Perceived value. The regression coefficients of four independent variables i.e. Efficiency, Fulfillment, System Availability and Privacy explain 72.4 percent variance on the dependent variable perceived value and 73.3 percent in customer satisfaction. But, independently, Fulfillment and Privacy variables have a statistically significant effect on perceived value and Efficiency and System Availability have not statistically significant effect on perceived value. With regard to indirect effect of serv9ce quality on customer satisfaction through a mediating variable perceived value it is found that e-SQ has an indirect effect on customer satisfaction in the context of Indian online shopping. The Perceived Value was found as significant mediator between E-S-QUAL and customer satisfaction. The indirect effect of basic service quality on customer satisfaction through perceived value is accounted for 0.9329 meaning that 67.19% of the respondents getting satisfaction through their perceived value of the services.

Customer-perceived electronic Service quality is one of the major dimensions of online business success (Khaled, 2012), which has been playing a crucial role in improving the business organizations and also helps to increase customer satisfaction and trust. It supports the organizations to gain competitive advantage. As per the results, e-SQ is directly associated with both perceived service value and customer satisfaction as the set three research hypotheses (H1-H3). The study reveals that E-S-QUAL scale developed by Parasuraman et al. (2005), is valid for measuring e-SQ in the context of Indian online shopping. The study shows that the efficiency and fulfillment privacy dimensions have a positive and significant effect on overall E-S-QUAL, service value and customer satisfaction. But Efficiency and System Availability is not statistically significant effect on perceived value. It also revealed that E-S-QUAL has a significant impact on perceived service value, and perceived service value has a significant impact on customer satisfaction. Direct and indirect effects are also found in between service quality and satisfaction.

MANAGERIAL IMPLICATIONS

E-shops must maintain the products that will meet the customer expectations or needs. It is suggested to take at most care while product packing, shifting and product delivery as the customers still do not have the confidence on the responsiveness of the e shops. More particularly, customers are hesitating to disclose the personal data and transferring of money through online. High secure firewall system should be introduced in e-stores to protect the customer personal data. Replacement of damaged product/repayment of money must be done within the given time boundaries. It is suggested that e-stores must overcome drawbacks of promised product delivery, privacy/security issues, compensation for the return products and customer care services to increase e-shopper perceived value.

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