



Assessing mediational effects of consumer skepticism between e-service quality and online consumer satisfaction

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Abstract

The trends of online shopping in India are emerging, especially with young generation. The increase in number of service providers has led to fierce competition. In order to overcome this problem of shifting from one service provider to other it is very important to understand those factors which can help marketer to retain customer. Consumer satisfaction depends upon the quality of service provided by the marketer (e-service quality). The concept of consumer skepticism is fairly new to the studies relating to consumer behaviour in an online environment. This research paper is an attempt to understand the interplay of e-service quality, e-satisfaction and e-consumer skepticism i.e. how these constructs are interrelated. Also, this study is an attempt to find whether consumer skepticism can act as mediator or does it have a direct relationship with e-satisfaction.

Keywords: consumer skepticism, e-service quality, e-satisfaction, mediational effect, SEM

Introduction

The growth of e-commerce can be attributed to the developments in the field of information technology. The current internet infrastructure has totally transformed the way people purchase goods and services. The consumers being the important part in the present scenario, it is of utmost significance for marketers and business organization to understand them better. In a developing nation like India, from a buzzword to a current-day reality, e-commerce has experienced remarkable growth though it still lacks way behind the developed nations. Given, the huge potential of growth e-commerce retail market in India, it is important the industry the most important factor driving any industry, i.e. 'Consumers'. The perception of skepticism amongst consumers can pose various challenges to the entire e-commerce industry. The purpose of this research paper is to investigate the role of consumer skepticism between consumer satisfaction and service quality in an online environment.

Review of Literature

Service quality was explained in terms of comparing excellence in the service encounters by customers and customer's overall attitude towards the company (Parasuraman, 1988) [24]. Service quality constitutes customers' overall impression of the relative inferiority/superiority of a service provider and its services (Bitner, 1990) [3]. Customers evaluate service quality by matching expectation with their perception regarding the service during or after its use (Barry, 1988) [1]. Service quality was stated as the customers' overall impression of the relative inferiority/superiority of a service provider and its services (Bitner, 1990) [3]. It involved customer's overall attitude towards the product / online retailer (Parasuraman, 1988) [24]. Service quality is determined by the value it adds to the life of consumers. In online environment variables

like timely order delivery, prompt response to customer hearing/ queries and after-sale services form the part of e-service quality (DeLone & McLean, 2004) [7]. Various other studies added variables like effective order tracking in addition to timely product delivery and prompt response to customer inquiries (Collier & Bienstock, 2006) [4]. There are four dimensions of e-service quality which include responsiveness, reliability, assurance and empathy (Gefen, 2002) [11]. According to Kim (2006), sixty percent of customers exit website prior to transactions due to poor service quality. The poor service quality poses a challenge to service providers to increase their customer base. Traditionally, SERVQUAL scale, developed by Parasuraman *et al.* (1991) was widely used to understand the role of service quality. Though dimensions of the scale previously used do not fit adequately to online services (Ladhiri 2009). Parasuraman *et al.* (2005) [25], proposed two scales for measuring service quality, in an online medium, namely basic E-S-QUAL and E-Rec-S-QUAL, which are relevant for entire customer base and those customers who have non-routine encounters with website respectively. E-S-QUAL scale consists of 11 dimensions (Zeithmal *et al.*, 2001) [29] later these dimensions were reduced to seven (Parasuraman *et al.*, 2005) [25]. Anderson *et al.* (2003) in his study suggested a satisfied customer is less likely to search for alternatives offered by the competitors, where as a dissatisfied customer is more likely to resist the attempts made by his current service provider and will make more efforts to decrease dependency on single service provider. Customer satisfaction is when products and services meet the expectation of the consumers (Jiradilok, 2014) [15]. Kotler (2012) [19] defined Satisfaction as the consequence of the customer's experiences during a purchase process. Bauer (2006) [2] developed a transaction process-based scale for measuring service quality and its relationship to skepticism. The five discriminant quality dimensions of

service quality identified as functionality/design, enjoyment, process, reliability and responsiveness had a positive impact on perceived value and customer satisfaction. Skepticism as suggested by Boush, *et al.*, (1994) is doubting the intentions behind the assertions made. The philosophical meaning of skepticism is associated with doubt. For Sextus Empiricus, everything is elusive, nothing is certain and everything can be questioned. Skepticism is defined as a doctrine which establishes the "suspension of judgment" as its founding principle. In everyday usage, a skeptical mind is generally associated with someone who doubts "that which is not proven in an obvious way", but can also refer to someone "who displays disbelief regarding a particular event" The studies conducted by Obermiller and Spangenberg (1998, 2000) [22] revealed skepticism as the absence of Candor in marketer actions, strongly affirming that marketers in order to gain will manipulate and lie. Batra (1986), described skepticism as a feeling of mistrust and cynicism, evoked by a catalyst that appears to be unreal, amplified and sham". Friestad & Wright (1994) [10] elucidated skepticism as cognitive "divisions" of information. They established in their research consumers treat any external message as a stereotype. Gunther (1992) explained that individuals develop different dispositions towards media based on communication made, including skepticism towards media information.

Research Objective

Based on review of literature following objectives and hypothesis of the study are proposed

- a) To study the relationship between consumer skepticism, e-service quality and e-satisfaction.
- b) To study the mediating role of consumer skepticism between e-service quality and e-satisfaction.

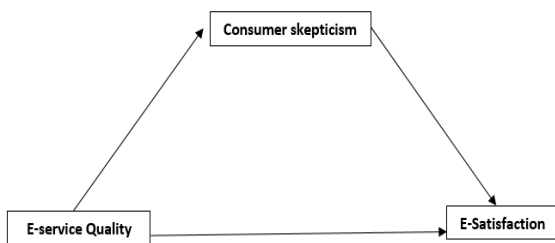


Fig 1

- **H1:** E-service Quality has a relationship with consumer skepticism
- **H2:** E-Service Quality has a positive relationship with e-satisfaction
- **H3:** Consumer Skepticism mediates the effect of e-service quality on e-satisfaction.

Research Methodology

The scale development based on reviews from previous studies, expert opinions related to online shopping in Indian context and adaptation from validated and reliable questionnaires. The main research instrument with 50 items from three constructs i.e. e-service quality (4 factors, 20 items), e-satisfaction (3 factors, 14-items), consumer skepticism (4 factors 16 items) was used for the purpose of this study. The survey was distributed online sending the google form to various respondents for this study. Questionnaires were distributed to 500 respondents. The

responses received were 438 of which only 370 could be used for further analysis.

Table 1

Demographical Variables	Categories	Frequency
Gender	Female	210
	Male	160
Age	Below 18 Years	9
	18-25 Years	203
	25-35 Years	145
	35- Above Years	13
Education	High Secondary	27
	Graduates	215
	Post Graduates	83
	Doctorates & Above	45
Monthly Expenditure	Below 5000	173
	5001-10000	126
	10001-15000	42
	15001- Above	29

Table 1 shows the demographic profile of the respondents where 210 (56.7%) are females and 160 (43.2%) are males. It shows that 9 (2.4%) respondents fall under the age group below 18 years and 203 belong to the age group of 18-25 (54.8%) years, 145 (39.1%) respondents fall in the age bracket 25-35 years and only 13 (3.5%) were 35 and above years of age. The sample profile shows that most of the respondents were graduates followed by post-graduates. Respondents with the highest qualification as Higher Secondary were 27 (7.3%) in number, 83 (22.4%) were postgraduates, the number of graduates was 215 (58.1%) and 45 (12.2%) were doctorates and above. Only 29 respondents (7.8%) had an income of more than 15001, respondents with an income below 5000 were 173 (46.7%), respondents with an income of 5001-10000 were 126 (34.1%) and income of 10001- 15000 were 42 (11.3%) respondents.

In order to check the sampling adequacy, the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests were conducted on all the factors and the values were found to be more than the threshold value of 0.5 and were significant at $p < 0.001$, hence suggesting that sample was adequate to measure these factors. The exploratory factor analysis was conducted followed by Confirmatory factor analysis (CFA). The items with loading more than 0.5 was extracted and retained as factors whereas items with small values were dropped from the analysis. Further the reliability of the scale was tested with the help of Cronbach's alpha value. The overall value of the scale and individual value of subscales are presented in table 2.

Table 2: Reliability Analysis

Sr. No.	Name of construct	Cronbach's alpha	No of items in scale
1	E-service quality	.859	20
2	E- satisfaction	.866	14
3	Consumer satisfaction	.878	16
4	Overall reliability	.897	50

Note: All the values were well ahead of the threshold value of 0.5 (Malhotra & Dash, 2015).

Once the reliability of the instrument is established the CFA was conducted in order to check the values of measurement model of the instrument. The empirical relationship between

the suggested variables, was tested using structural equation modelling (SEM) for data analysis. It helps to examine simultaneously dependent relationships and identify structural dependencies between various constructs. The results of measurement model represented the model fit indices have the values of $\chi^2=720.121$, $df=378$, $\chi^2/df= 1.90$ at $p < 0.001$; GFI= 0.943; CFI= 0.937; TLI= 0.929; RMSEA = 0.016. All these indices indicate that the predictive model is appropriate for measurement.

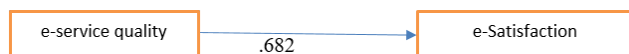
Table 3: Validity Results of Measurement Variables

Dimension	CR	AVE	MSV
Satis_1	.862	.617	.338
Satis_2	.812	.685	.178
Satis_3	.947	.855	.173
IB_Cs1	.764	.764	.081
SR-Cs2	.832	.633	.602
Sus_Cs3	.847	.583	.114
ET-Cs4	.786	.558	.260
Ser_Q1	.783	.550	.277
Ser_Q2	.899	.818	.086
Ser_Q3	.924	.636	.018
Ser_Q4	.891	.623	.067

Note: CR: composite Reliability; AVE: Average variance extracted, MSV: maximum Shared Variance; ASV: Average Shared variance, values in bold diagonally is the square root of AVE of the corresponding constructs

Table 3 presents composite reliabilities and variances to measure the validity of the construct. Average variance extracted (AVE) of constructs were higher than the suggested value of .50, (Fornell & Larcker, 1982) [9]. Discriminant validity was assessed by comparing the MSV with the AVEs of each construct (Fornell & Larcker, 1982) [9]. Discriminant validity can be said satisfactory if MSV is less than the AVE for each corresponding construct (Fornell & Larcker, 1982) [9]. All the conditions were met, demonstrating both construct share more variance with its measures than it shares with other constructs.

Test for direct effect of e-service quality on e-satisfaction Below is the figure explaining the structure equation modelling (SEM) results for the direct relationship between e-service quality and e-satisfaction.



Note: The relationship depicted here is for the purpose of simplicity only. Each construct is associated with variables explaining the construct and each variable is having error term associated with it.

Fig 2: Direct relationships between the variables

It is clear from the table below, the $\beta = .682$, $t = 13.62$ and $p < .05$. which explains that the direct relationship between e-service quality and e-satisfaction is significant in effect.

Table 4: Direct Relationship Between E-Service Quality & E-Satisfaction

	Estimate	S.E.	C.R.	P	Label
Satisfaction <--- Quality	.682	.040	13.621	***	

Test for Indirect effects

A mediator variable represents an intervening variable or,

stated differently, a mechanism through which an independent variable is able to influence a dependent variable (Baron & Kenny, 1986). A mediator explains how or why a relationship exists between the predictor and dependent variable, and a mediator is often an attribute or an intrinsic characteristic of individuals. For the purpose of checking the mediation effect of consumer skepticism the indirect paths were estimated. The following table explains the indirect effects

Table 5: Indirect Relationship Among Variables

	Estimate	S.E.	C.R.	P	Label
Skepticism <--- Quality	-.321	.038	-11.413	***	
Satisfaction <--- Skepticism	-.418	.047	-1.823	***	
Satisfaction <--- Quality	.364	.050	7.373	***	

It is clear from the table above that all the indirect paths, i.e path e-service quality to skepticism is significant as the $\beta = -.321$, $t = -11.413$, $p < .05$. The second path i.e. skepticism to e-satisfaction is also significant as the $\beta = -.418$, $t = -1.823$, $p < .05$. The third path is also significant as the $\beta = .364$, $t = 7.373$, $p < .05$.

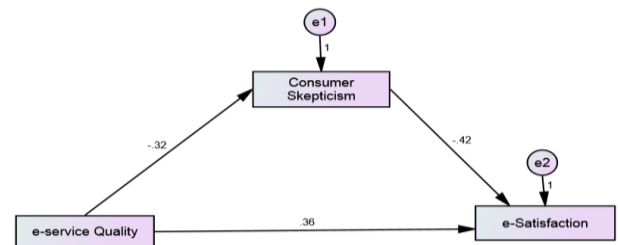


Fig 3: Indirect Relationship Between E-Service Quality and E-satisfaction in the presence of mediator (consumer skepticism).

When compared with direct path i.e. e-service quality to satisfaction $\beta = .682$, $t = 13.621$ and $p < .05$, the value of indirect path decreases $\beta = .364$, $t = 7.373$, $p < .05$., which explain the presence of partial mediation in the presence of mediator consumer skepticism. Hence, the alternate hypothesis consumer skepticism has mediational effect on e-service quality on e-satisfaction is accepted.

Results

In summary, all the hypotheses were supported. There were two antecedents suggested for e-satisfaction of consumers: e-service quality and consumer skepticism. A strong relationship was found between consumer skepticism and e-service quality (H1). The elemental trait, e-service quality did show a statistically significant positive relationship with e-satisfaction (H2). The theoretical model proposed Mediating effects of consumer skepticism between e-satisfaction and e service quality which existed when the model was tested (H3). All the hypotheses were strongly supported, triangulating findings from the qualitative study. Skeptical consumers express their dissatisfaction by abandoning the marketplace, limiting their online spending and reducing marketing exposure. The relationship of skepticism with quality and satisfaction is negative in an online environment. This consumer perceives online websites to be harmful and they depict their resentment sometimes through boycotting, making socially conscious purchases, retaliation and conscious efforts to make other consumers more aware. These efforts can result in

dissatisfaction and poor perception of e-service quality.

Table 6

Alternated Hypothesis	Conclusion
H1: E-service Quality has a relationship with consumer skepticism.	Accepted
H2: E-Service Quality has a positive relationship with e-satisfaction	Accepted
H3: Consumer Skepticism mediates the effect of e-service quality on e-satisfaction.	Accepted

Discussion

The purpose of the research for this study was to explore how the positive relationship between e-service quality and consumer satisfaction are mediated by consumer skepticism. Research participants discussed their doubts, quality experience and quality of service. Results indicated several meaningful outcomes. First, participants who perceive service quality of online shopping websites to be poor tend to be less satisfied and more skeptical. Second, Skepticism partially mediates the relationship between e-service quality and e –satisfaction. Third, this relationship study identifies three variables that are significant in online shopping and purchasing behaviour. The above information is important for both the marketers and retailers. It lets them know it is even more crucial to understand doubts in the minds of consumer as it has a relationship with both perception of service quality and perceived satisfaction.

Previous researches have demonstrated the existence of a positive relationship between e-service quality and e-satisfaction but researcher was unable to find any research which related e-service quality affects satisfaction but through skepticism. The effect of quality reduces on satisfaction making it lower in the presence of skeptical disposition. This signify that online companies must understand what the customers need through service quality, so that customers can trust the service provider once a particular level of satisfaction is achieved. The results of the hypothesis reveal that there is need to focus on consumer skepticism as mediator in order to increase satisfaction and improve perception of service quality among the customers. The construct consumer skepticism shows the verdict of the customers’ perception of the performance of e-service quality and in an online setting it is a predictor of e-satisfaction. The results are in consonance with the findings of Abdullahi Hassan (2014). Further, as the results of the hypothesis has shown that there is positive and significant relationship between e-service quality and e-satisfaction. Therefore, in order to enjoy competitive advantage in a highly competitive market companies need to focus on these variables in order to enjoy long term relationship with the target customers. So the managers should not only try to improve e-service quality performance but also carefully manage the doubts of consumers (Consumer skepticism).

Managerial Implications

Skepticism comes as a consequence of the comparisons, previous experience, social groups, presence of doubts and difference between the expectations and reality. The findings suggested that focus should be on reducing consumer doubts by improving the quality and satisfaction i.e. reliability, responsiveness, assurance and empathy which result in higher satisfaction levels. This paper discusses the need to strengthen the marketing strategies

related with service quality in order to reduce skepticism to a minimum and attain a large market share in e-commerce environment. The online service providers can improve their customer satisfaction levels by focusing on core dimensions of service quality and understanding the dimensions of skepticism better.

Future directions for research

This was first attempt from author to add the dimension of consumer skepticism between the relationship of service quality and satisfaction. Since customer satisfaction is built over time, various other constructs can be included in to study long term relationship with other variables. In future, it is suggested to include core issues related with effect of demographic factors, cultural issues, moderators and mediators in this study.

Limitations of the Study

- This study clearly did not include all variables related to consumer skepticism. Thus other variables can be examined in future researches.
- This study didn’t examine any moderators and mediators that can affect consumer’s skepticism towards online shopping.
- The results can’t be generalized because of small sample size.
- This study does not take in to account any impact of demographic factors of respondents.

References

1. Barry M, Leiner VG. A brief History of Internet. ACM SIGCOMM Computer Communication Reviwe, 2009; 22-31.
2. Bauer HH, Falk T, Hammerschmidt M. eTransQual: a transaction process-based approach for capturing service quality in online shopping. Journal of Business Research. 2006; 59:866-875.
3. Bitner MJ. Evaluating service encounters; the effects of physical surroundings and employee responses. Journal of Marketing. 1990; 54:69-82.
4. Collier JE, Bienstock CC. How do customers judge quality in an e-tailer? Sloan Management Review, 2006; 48(1):35-40.
5. Cronbach L. Essentails of Psychological Testing 3rd Edition. Newyork: Harper & Row, 1970.
6. Cristobal E, Flavian C, Guinaliu M. Perceived e-service quality (PeSQ) Measurement validation and effects on consumer satisfaction and website loyalty. Managing Service Quality, 2007; 17(3):317-340.
7. DeLone WH, McLean ER. Measuring e-commerce success: Applying the DeLone & McLean information systems success model. International Journal of Electronic Commerce. 2004; 9(1):31-47.
8. Field A. Discovering Statistics using IBM Spss Statistics. Germany: Sage publications limited, 2013.
9. Fornell C, Larcker DF. Evaluating structural equation modelling with unobservable variables and measurement error. In C. Fornell, A second generation of multivariate analysis. Newyork: Praeger publishers, 1982, 289-316.
10. Friestad M, Wright P. The persuasion Knowledge Model: How people cope with persuasion attempts. Journal of consumer research. 1994; 1-31.
11. Gefen D. Customer loyalty in e-commerce. Journal of

- the Association for Information Systems. 2002; 3(1):27-51.
12. Gefen D, Straub DW. The relative importance of perceived ease of use in IS adoption: a study of e-commerce adoption. *Journal of the Association for Information System*. 2000; 1(8):1-28.
 13. Hu L, Bentler P. Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling*, 1999, 1-55.
 14. Hurtt RK. Development of a Scale to Measure Professional Skepticism. *Auditing: A Journal of Practice & Theory*. 2010; 149-171.
 15. Jiradilok T, Malisuwan S, Madan N, Sivarakas J. The Impact of Customer Satisfaction on Online Purchasing: A Case Study Analysis in Thailand. *Journal of Economics, Business and Management*. 2014; 2(1):5-11.
 16. Kassim N, Abdullah AN. The effect of perceived service quality dimensions on customer satisfaction and trust in e-commerce settings. *Asia Pacific Journal of Marketing and Logistics*. 2010; 22(3):351-371.
 17. Kanter DL. *The cynical Americans: Living and working in an age of discontent and disillusion*. San Francisco, CA: Jossey-Bass Inc, 1989.
 18. Koslow S. Can truth hurt? How honest and persuasive advertising can unintentionally lead to increased to consumer skepticism. *Journal of consumer affairs*. 2000; 245-268.
 19. Kotler P, Keller K. *Marketing Management*. U.S.: Pearson publication, 2012.
 20. KPMG. *Fulfilled! India's e-commerce retail logistics growth story*. Retrieved from the KPMG, 2016. website: <http://www.KPMG.com>
 21. Kumar A, Garga P. Scale development for measuring consumer skepticism towards online shopping. *International Journal of Management Studies*. 2019; 45-56.
 22. Obermiller C, Spangenberg E. Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology*. 1998; 159-186.
 23. Parasuraman A, Zeithaml V, Berry LL. A conceptual model of service quality and its implications for future research. *Journal of Marketing*. 1985; 49:41-50.
 24. Parasuraman A, Zeithaml V, Berry LL. SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing*. 1988; 64:420-50.
 25. Parasuraman A, Zeithaml VA, Malhotra A. E-S-Qual: a multiple-item scale for assessing electronic service quality. *Journal of Service Research*. 2005; 7(3):213-33.
 26. Kotler P, Cunningham MH, Turner RE. *Marketing Management*, Pearson Education Canada, 2001.
 27. Zhou T, Lu Y, Wang B. The Relative Importance of Website Design Quality and service Quality in Determining Consumers' Online Repurchase Behavior. *Information Systems Management*. 2009; 26(4):327-337.
 28. Zeithaml VA, Parasuraman A, Malhotra A. E-service quality: definition, dimensions and conceptual model. working paper, Marketing Science Institute, Cambridge, MA, 2000.
 29. Zeithaml VA, Parasuraman A, Malhotra A. A conceptual framework for understanding e-service quality: implications for future research and managerial practice. working paper, report no. 00-115, Marketing Science Institute, Cambridge, MA, 2001.
 30. Zeithaml VA, Parasuraman A, Malhotra A. An empirical examination of the service quality-value-chain in an electronic channel working paper, University of North Carolina, Chapel Hill, NC, 2002.