Effect of E-Service Quality On Repurchase Intention of E-Commerce Customers in India

Dr. Rajeev Sirohi[1]

[1]Assistant Professor (Sr.), Lal Bahadur Shastri Institute of Management Delhi, India

Email ID: rajeevsirohi@lbsim.ac.in

KEYWORDS	ABSTRACT
E-service quality, Repurchase intention, E-commerce, Customer loyalty	This study investigates the effect of e-service quality dimensions on the repurchase intentions of e-commerce customers in India. Data were collected via an online survey, resulting in 350 usable responses, which were analyzed using structural equation modeling (SEM). Results reveal that website design, customer service, and security have a significant impact on customers repurchase intentions, collectively explaining 44.3% of the variance in repurchase behavior. These findings highlight the important role of well-designed websites, reliable customer support, and secure transactions in retaining online shoppers. This study provides valuable insights for e-commerce managers seeking to improve customer loyalty and provides a foundation for future academic research in the areas of e-service quality and consumer behavior.

1. INTRODUCTION

Ever since it came into existence, electronic commerce (e-commerce) has completely changed the face of retail across the world as it has brought various means of shopping and businesses closer to the consumers. Customers have moved from buying in stores to making electronic purchases as the Internet became available. Some people now prefer to order for products online because it is easier than making a trip to the stores. This transition was more pronounced during the global outburst of COVID-19 virus that caused many countries to undergo national lockdowns where most people had to rely on online shopping (UNCTAD, 2020). Current projections indicate that user penetration in e-commerce is expected to be 63.1% in 2025 (Statista, 2020). This digital evolution has also affected the Indian scene, the e-commerce market in India will hit $350 billion in 2030 (IBEF, 2023).

In the competitive online marketplace, e-service quality plays a critical role in influencing consumer behaviour. Research indicates that customer satisfaction and repurchase intentions will increase with enhanced e-service quality (Tran & Vu, 2019; Wolfinbarger & Gilly, 2003).

There is increasing recognition of the need for cultivating e-service quality; however, it is still problematic for internet-based businesses to be able to offer customers a high-quality experience worth committing to or returning back for another purchase (Fasihah et al., 2020; Rita et al., 2019).

Previous studies investigated the issue of e-service quality and customer satisfaction, however, less is known about its specific influence on repurchase intention, within the context of the Indian e-commerce sector. Most of the previous studies appear to have been conducted in Western regions so there is not much clarity on how e-service quality affects repurchase intention in new markets such as India that have differing cultural, economic, and technological circumstances (Ladhari et al., 2011). In addition, previous works tend to focus on customer satisfaction rather than e-service quality and its relation to repurchase intention in a growing Indian e-commerce context. This gap requires further research to examine the critical elements of e-service quality that will enhance repeat purchases in India.

Thus, the central focus of the present research is the e-service quality perception and the repurchase intention of e-commerce customers in India.

In particular, the present research will seek to understand the spatial influence of dimensions of e-service quality on customers repurchase decision for an online retailer.

This study shall add value to existing literature by presenting direct evidence of relations between e-service quality and repurchase intention in the Indian e-commerce market. This study will be beneficial for Indian e-commerce companies by helping them improve their service strategies towards building customer loyalty and repeat purchases. Additionally, this research will focus on the drivers of e-service quality that can be harnessed by e-retail businesses to help them remain competitive in the expanding online retail market in India.

This article is structured as follows: Section 2 reviews the literature and develops hypotheses.

The methodology and data collection are explained in Section 3. Section 4 represents the result. Section 5 deals with findings and implications. Finally, Section 6 summarizes the study, discusses limitations, and provides suggestions for future research.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Dimensions and outcomes of e-service quality

The significant differences between traditional and e-service necessitate the need of a new scale to measure the quality of online services (Firdous & Farooqi, 2019). Research on e-service quality mainly focuses on two areas: dimensions and outcomes of service quality (Al-dweeri et al., 2017; Suhartanto et al., 2019). The e-service quality dimensions cover all stages of the customers' interaction with the online store, from the beginning to the completion of the transaction. This includes such as searching for information, viewing privacy policies, exploring websites, placing orders, interacting with customers, managing product delivery and returns, and satisfaction with product purchases (Wolfinbarger & Gilly, 2003). Several attributes of online stores are used to evaluate the quality of e-services, including attractiveness of products, the ease of ordering process, the quality of return policy, the design and beauty of the website, easy to use, accurate information, trust, security, and customer services lion (Lionello et al., 2020; Nurlaela et al., 2019). Despite research on these dimensions, operational standards for effective e-services are still lacking. There is also significant overlap in how different studies classify these dimensions. For instance, Parasuraman et al. (2005) developed six dimensions e-service quality model: efficiency, fulfilment, system availability, privacy, responsiveness, and contact. Similarly, Rahahleh et al. (2020) identified five dimensions, namely information quality, ease of use, reliability, privacy, and performance. Dhingra et al. (2020) emphasized to web design, reliability, performance, confidence, and personalization. Assimakopoulos et al. (2018) divided the dimensions into web interface and privacy/security issues. Regarding the overlap problem in e-service quality, Blut et al. (2015) identified four components of e-service quality: Website design, fulfilment, customer service, and security, based on Wolfinbarger & Gilly (2003)which is widely accepted framework.

2.2 Consequences of e-service quality

Consequences of e-service quality include customer satisfaction, loyalty, trust, repeat purchases, and positive word-of-mouth (Adwan et al., 2020; Any et al., 2016). Research consistently demonstrates a positive association between e-service quality dimensions and customer trust, satisfaction, and loyalty toward online service providers (Nisar & Prabhakar, 2017). However, the strength of these relationships can vary across different markets.

Based on the existing literature and the framework proposed by Blut et al. (2015), this study presents the conceptual framework depicted in Figure 1 and the following hypotheses to examine the impact of e-service quality dimensions on repurchase intention among Indian e-commerce customers:

H1: Website design has a significant influence on repurchase intention.

H2: Fulfilment has a significant influence on repurchase intention.

H3: Customer service has a significant influence on repurchase intention.

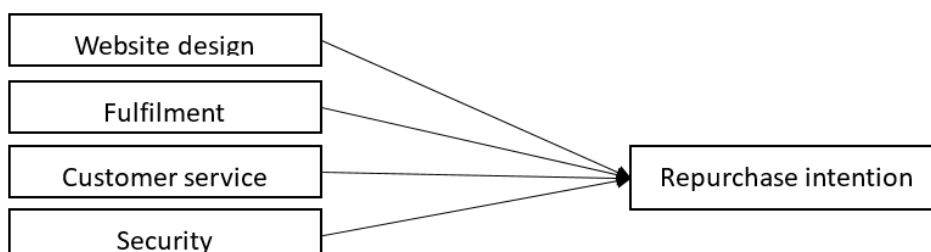**H4:** Security has a significant influence on repurchase intention.

Fig 1

3. METHODOLOGY

An online survey was used for data collection because of the advantages that online survey has as lower cost, faster response, and a wider geographic range (Liu et al., 2015). The target population consisted of people who have been shopping online for more than two months. Convenience sampling was used to generate a total of 385 responses between April l0 and April 25, 2024. Of these, 350 were considered as usable responses; and 35 were excluded for incomplete information. The 350 valid responses meet the sample size requirements for Structural Equation Modeling (SEM) (Kline, 2011).

The survey instrument was designed based on the framework by (Blut et al., 2015), with adjustments made to fit the Indian context. The contents of the measurement scales were validated through conducting a pretest of the questionnaire. The scales were reviewed by four academic experts in service marketing and e-commerce, and specific items in the questionnaire that differed with their feedback about clarity rephrased. Therefore, the final version contained 15 items across five factors. Five-point Likert scale was used for each item, ratings ranged from 1 (Strongly disagree) to 5 (Strongly agree).

A standard two-step approach was used for testing the proposed model (Thakur, 2018). Initially, confirmatory factor analysis (CFA) was performed to validate the measurement model. We tested the series of hypotheses sequentially using Structural Equation Modeling (SEM). Smart PLS4.0 was used to perform the CFA and SEM analyses.

4. RESULT

There were two primary stages to the data analysis procedure. Using a variety of statistical methods, we built and tested the measurement model in the first stage. First, a variety of metrics, including the Cronbach Alpha value, Composite reliability, and Average variance explained (AVE) were employed to evaluate the reliability and convergent validity. Discriminant validity were evaluated using Fornell–Larcker criterion and 'Heterotrait-Monotrait Ratio (HTMT)' measure. In the second stage, path analysis was utilized to evaluate the research model and put the proposed hypotheses to the test (Ray and Sahney, 2018).

4.1 Analysis of measurement model

Reliability and Convergent Validity

Table 1. Measurement Model Analysis Results

Latent construct	Items	FL	CA	CR	AVE
customer service	cust1	0.838	0.792	0.877	0.705
	cust2	0.797			
	cust3	0.881			
fulfilment	ful1	0.664	0.793	0.785	0.564
	ful2	0.977			
	ful3	0.545			
repurchase intention	ri1	0.906	0.900	0.937	0.833
	ri2	0.918			
	ri3	0.914			
security	secu1	0.814	0.770	0.865	0.681
	secu2	0.870			
	secu3	0.790			
website design	web1	0.884	0.772	0.866	0.687
	web2	0.676			
	web3	0.906			

Table 1 shows the loading results, composite reliability (CR) of factors, Cronbach's Alpha values, and the variance accounted for (AVE).

Internal consistency reliability

Due to its perceived suitability, "composite reliability" was selected as the metric for evaluating internal consistency dependability in this work (F. Hair Jr et al., 2014; Ray and Sahney, 2018). There was a high degree of internal consistency reliability among all the reflective latent variables, as indicated by the composite reliability values for each construct in the final model being higher than the suggested threshold level of 0.70 (see Table 1). Using Cronbach's alpha, the internal consistency of the measurement model was also verified.

Convergent validity

At the construct level, Average Variance Extracted (AVE) was used to evaluate convergent validity. The AVE for each latent construct exceeds the suggested cut-off of 0.50, as can be seen in Table 1, following the recommendations of (F. Hair Jr et al., 2014; Ray & Sahney, 2018). Convergent validity is so confirmed as a result of this.

Discriminant validity

Table 2. Fornell-Larcker criterion: Results of Discriminant Validity

Latent Variables	customer service	fulfilment	repurchase intention	security	website design
customer service	0.839				
fulfilment	-0.050	0.751			
repurchase intention	0.529	-0.147	0.913		
security	0.504	-0.067	0.496	0.825	
website design	0.548	-0.047	0.586	0.503	0.829

The Fornell–Larcker criterion, often viewed as the most cautious assessment method (F. Hair Jr et al., 2014), was employed to assess the discriminant validity of the constructs. As shown in Table 2, each construct's square root of average variance extracted (AVE) exceeds its correlation with other constructs, aligning with the guidance of (Fornell & Larcker, 1981). Consequently, the study has successfully demonstrated the discriminant validity of the constructs.

Table 3. Heterotrait-monotrait ratio (HTMT): Results of Discriminant Validity

Latent Variables	customer service	fulfilment	repurchase intention	security	website design
customer service					
fulfilment	0.085				
repurchase intention	0.613	0.093			
security	0.643	0.098	0.581		
website design	0.682	0.230	0.679	0.618	

In Table 3, discriminant validity is assessed using the 'Heterotrait-Monotrait Ratio (HTMT)' measure. Upon examination, the HTMT values for all constructs in the final model were found to be below the recommended threshold of 0.90. Consequently, the study demonstrates strong discriminant validity among the constructs.

4.2 Analysis of structural model and testing of hypotheses

Table 4. Results of structural model analysis

Hypothesis	Paths	Beta	T - Statistics	P - Values	Results
H1	customer service -> repurchase intention	0.230	4.135	0.000	Significant
H2	fulfilment -> repurchase intention	-0.106	1.574	0.116	Insignificant

H3	security -> repurchase intention	0.193	3.686	0.000	Significant
H4	website design -> repurchase intention	0.358	6.009	0.000	Significant

All the hypotheses modelled were tested as shown in Table 4. The findings demonstrated that three out of the four hypotheses (H1, H3, and H4) received empirical support. This suggests that customer service, security, and website design exert a significant influence on customers' repurchase intention in e-commerce. However, fulfilment on customers' repurchase intention in e-commerce, did not receive empirical support.
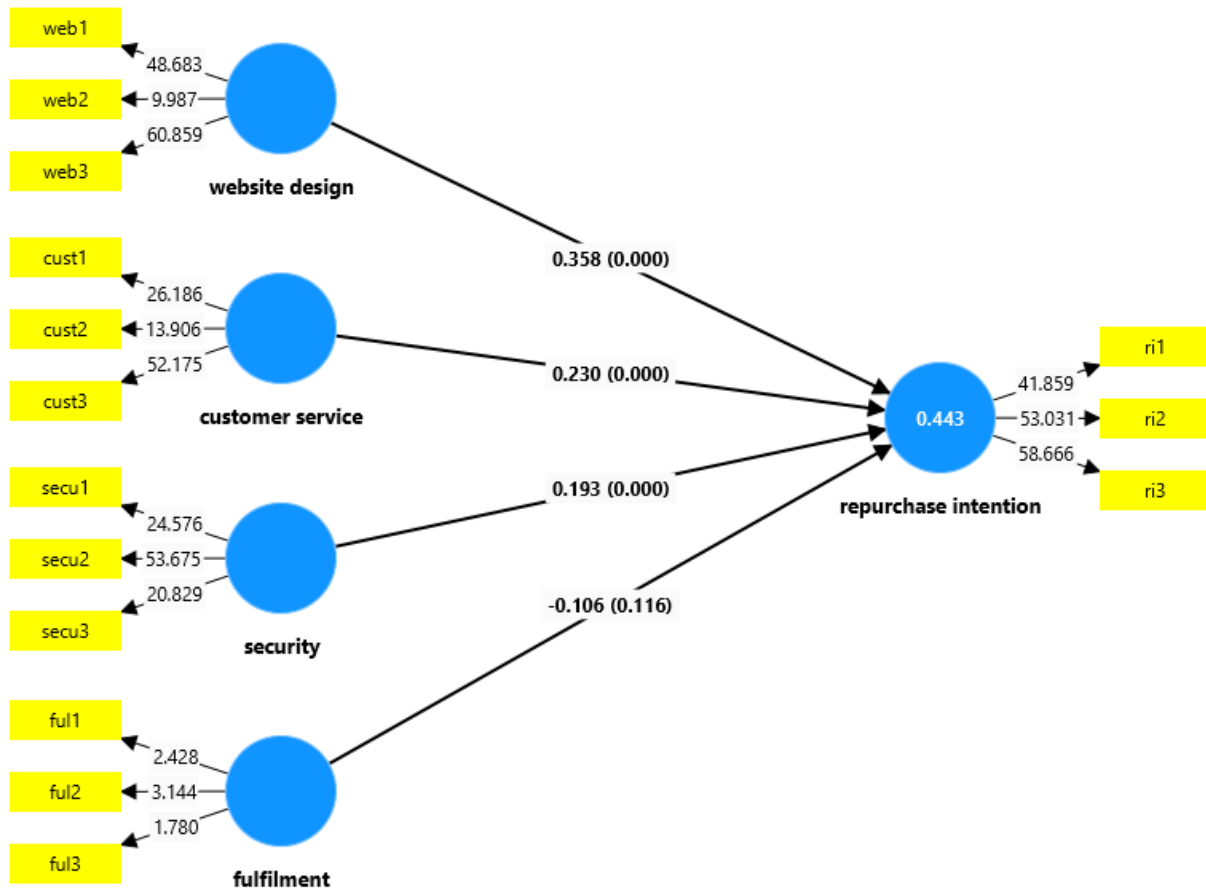

Fig. 2 SEM diagram

5. DISCUSSION

This study examined the link between e-service quality dimensions and consumers' repurchase intention to engage in purchases of services and goods online. Towards this end, a conceptual framework was developed that included four e-service quality dimensions and customers' repurchase intention. It was hypothesized that e-service quality dimensions would exert a substantial influence on online repurchase purchase intentions. The analysis revealed that 44.3% of the variability in individuals' willingness to repurchase online can be attributed to e-service quality.

This study identified three e-service quality dimensions significantly influencing online purchase repurchase intentions: website design, customer service, and security. Interestingly, no statistically significant impacts were observed for fulfilment. Our results are in sync with previous research. While Blut et al. (2015) confirmed the significant impact of website design and customer service on repurchase intention in online shopping, Parasuraman et al. (2005) found customer service and security to be significant for repurchase intention.

Managerial and theoretical implications

The findings of this study offer several actionable insights for e-commerce managers aiming to enhance customer retention and boost repurchase intentions through improved e-service quality. First, website design was found to significantly influence repurchase intentions, emphasizing the importance of creating an intuitive, visually appealing, and user-friendly online shopping experience. Managers should invest in optimizing website navigation, ensuring fast load times, and offering a personalized shopping experience, as these elements directly impact customers' decision to return to the platform.

Second, the customer service dimension also played a crucial role in fostering repeat purchases. E-commerce businesses

should focus on providing timely and effective customer support, both pre-purchase and post-purchase, to ensure customer satisfaction. Streamlining the returns process and maintaining clear communication channels will not only reduce customer frustration but also enhance loyalty.

Third, security was identified as a significant determinant of repurchase intention. Ensuring robust data protection measures, such as encryption and secure payment gateways, can build trust and reduce the perceived risk associated with online transactions. Given growing concerns around data breaches and cyber threats, visibly communicating these security measures can further reassure customers and encourage them to make repeat purchases.

This study contributes to the existing literature by confirming and expanding upon previous research highlighting the significance of e-service quality in shaping customer behavior within the e-commerce domain. The finding that 44.3% of the variation in repurchase intention can be attributed to e-service quality dimensions underscores the crucial role these dimensions in online consumer behavior. Moreover, the results offer valuable insights into the relative importance of different e-service quality dimensions.

6. LIMITATIONS AND FUTURE RESEARCH

The absence of a significant effect from fulfilment raises interesting questions for future research. Scholars may want to explore whether fulfilment plays an indirect role through other mediating factors such as satisfaction or trust, or whether its impact varies across different types of e-commerce platforms or consumer segments. Moreover, this study's focus on the Indian e-commerce context adds a geographically specific perspective, offering opportunities for comparative analysis with findings from other regions. Future research can build on this study by exploring cultural or market-specific factors that may moderate the impact of e-service quality dimensions on repurchase intentions.

In conclusion, the findings contribute to both the managerial and academic understanding of how various dimensions of e-service quality can be leveraged to drive customer loyalty and enhance the sustainability of e-commerce businesses.

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