Impact of E-Service Quality Dimensions on Customer Satisfaction and Loyalty in Online Apparel Shopping in India

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Abstract

This study aimed to assess the impact of the e-service quality dimensions on customer satisfaction and loyalty in the online apparel market in India. The study examined the direct effect of e-service quality dimensions on customer satisfaction and the effect of customer satisfaction as a mediator in the relationship between the e-service quality dimensions of fulfillment, privacy, efficiency, system availability, and customer loyalty. The study used a descriptive design and collected data from 239 respondents in 2020. Data were analyzed using statistical tools such as Statistical Package for Social Sciences (SPSS) and analysis of moment structures (AMOS). A confirmatory factor analysis was carried out to assess model fit, and path analysis using AMOS was used to test the direct relationships. The mediation effect of customer satisfaction between the dimensions of e-service quality with customer loyalty was tested through the PROCESS Macro package. While the e-service quality dimensions of fulfillment and privacy positively influenced customer satisfaction, efficiency and system availability did not lead to customer satisfaction. However, customer satisfaction partially mediated all four dimensions of e-service quality and customer loyalty. This study contributed to the academic literature by testing the E-SERVQUAL model in India's online apparel shopping context. The study was relevant to online apparel retailers by identifying fulfillment and privacy as key dimensions influencing customer satisfaction amongst online apparel customers in India.

Keywords : E-service quality, E-S-QUAL, customer satisfaction, customer loyalty, structural equation modeling

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The rapid growth of the internet has spurred exponential growth in e-commerce and online retail. In the initial years when online shopping commenced, retailers focused on providing a good web interface and lower prices to the consumer (Parasuraman et al., 2005). Over time, retailers realized that to be successful in online retail, they would have to differentiate themselves from their competitors (Mahadevan & Joshi, 2021a). Higher levels of competition are now forcing online businesses to build a differentiating strategy. In this context, the quality of the service provided by the e-retailer has gained much significance (Stamenkov & Dika, 2015). Higher levels of service quality in online retail have been linked to better relationships with customers (Rust &

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Lemon, 2001), higher long-term profits (Zehir & Narcıkara, 2016), positive word of mouth (Mahadevan & Joshi, 2021b), and overall business survival and success (Reichheld & Schefter, 2000).

The online retail market, which was around US$ 32 billion in 2018, is expected to touch around US$ 73 billion by 2026 (India Brand Equity Foundation, 2021). The online apparel retail industry in India is expected to see significant growth in the future. The apparel segment accounted for almost 40% of all online retail sales in 2020; this trend is expected to continue. Given this expected trend, electronic service or e-service quality is expected to be a key differentiator in the online apparel retail industry.

Originality of the Study

Several researchers have studied the influence of e-service quality on customer satisfaction and loyalty individually and jointly across various industries, such as generic online retail (Al-dweeri et al., 2019; Kurup & Jain, 2018), internet banking (Chandel & Vij, 2019; Vasudeva & Singh, 2017), tourism (Abou-Shouk & Khalifa, 2017), and education (Agrawal et al., 2017). Given that the online apparel industry in India has exhibited significant growth (also due to the ongoing pandemic) and is expected to be a key growth driver of online retail in the future, apparel e-retailers need to ensure differentiation through the provision of better e-service quality. However, previous research in e-service quality has not examined the influence of e-service quality on customer satisfaction and loyalty with specific reference to the online apparel industry and the Indian consumer. This is a research gap that needs to be addressed. Therefore, this study seeks to fill this gap in research by investigating the influence of e-service quality on customer satisfaction and customer loyalty in the online apparel industry of India.

Literature Review, Constructs, and Hypotheses

E-Service Quality

The importance of quality as a key component of business strategy has been well documented in research (Artana et al., 2022). For service industries, the critical role that quality plays in service delivery has been researched in depth (Panigrahi et al., 2018; Sharma & Verma, 2015). Research in the online retail domain has indicated that overall service quality, delivery, and fulfillment of orders are as important in the e-retail sphere as in the offline retail environment (Bhat & Darzi, 2020). Delivery of a high level of service quality is now considered a part of the mainstream business strategy, which is essential for online retailers to enjoy business success and survive in a competitive business environment (Reichheld & Schefter, 2000).

Rust and Lemon (2001, p. 85) defined electronic service or e-service as "the role that service plays in cyberspace." Santos (2003, p. 235) defined electronic service quality or e-service quality as "the consumers' overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual marketplace." Blut (2016) opined that e-service quality refers to the extent to which an online service offers a customer an effective and efficient shopping experience, and this experience would include both purchasing and delivery of the service.

Several studies in the last decade have focused on studying the influence of e-service quality on various outcomes such as customer satisfaction, customer trust, patronage intentions, and customer loyalty. Hung et al. (2014) examined e-service quality from the consumer, business, and technical perspectives. They assessed the impact of marketing and technological factors on e-service quality on customer satisfaction.

Mishra and Das (2019) examined the factors influencing patronage behavior in e-retail customers. They found that e-service quality positively affected the e-patronage intentions of consumers. Bhattacharya and Mishra (2016) examined the influence of cyber atmospherics on buyer behavior in e-commerce. Rashid and Rokade

(2021) examined the importance of various retail service quality parameters on customer satisfaction in organized retail food and grocery outlets. They concluded that a web-based mobile application to enable customers to place orders and shop online was an important factor in customer satisfaction. Finally, Tran and Vu (2019) investigated the impact of e-service quality on e-satisfaction, e-trust and behavioral intention in online shopping. Despite several studies investigating e-service quality from multiple perspectives, the influence of e-service quality on customer satisfaction and loyalty from a country and industry contextual perspective concerning India and online apparel is an under-researched area in literature.

This study has adopted the E-SERVQUAL scale developed by Parasuraman et al. (2005) to measure e-service quality which includes the dimensions of fulfillment (FUL), privacy (PRI), efficiency (EFF), and system availability (SYS). The study seeks to examine the influence of FUL, PRI, EFF, and SYS on customer satisfaction (CS) and the impact of customer satisfaction on customer loyalty (CL) in the online apparel industry in India. In addition, it seeks to explore whether CS mediates the relationship between the e-service quality dimensions of FUL, PRI, EFF, SYS, and CL.

Constructs and Hypotheses

Fulfillment (FUL)

The E-SERVQUAL model defines FUL as "the extent to which the site's promises about order delivery and item availability are fulfilled" (Parasuraman et al., 2005, p. 220). FUL has been envisaged by researchers as one of the most critical factors contributing to the consumer's judgment about e-service quality on an online website or online retailer. Zeithaml (2002) has opined that having an adequate inventory of products, making items available for delivery within a suitable timeframe, delivering the products as per the timing of delivery promised to the customer, and being accurate about the promises made to the consumer are vital elements leading to an overall perception of higher e-service quality. Higher fulfillment levels can also enhance customer satisfaction (Yang & Fang, 2004). In light of the above, this study proposes the following hypotheses:

✤ **$H_0 1$:** FUL does not have a significant influence on CS.

✤ **$H_a 1$:** FUL has a significant influence on CS.

Privacy (PRI)

Parasuraman et al. (2005, p.220) defined the privacy dimension of e-service quality as "the degree to which the site is safe and protects customer information." Sharma and Sheth (2004) opined that the privacy and security of information provided by the customer are of paramount importance in online retail. Consumers hesitate to patronize websites where their risk perception about the security of their personal information is high. Therefore online retailers are becoming increasingly aware of the need to provide enhanced security mechanisms on their websites (Korgaonkar & Karson, 2007). Numerous studies have examined the importance of privacy on consumer perceptions of internet shopping (Santos, 2003; Yang & Fang, 2004; Zeithaml et al., 2002). Previous studies have indicated that privacy has had a substantial impact on overall e-service quality and customer satisfaction (Rita et al., 2019), customer loyalty (Zehir & Narcıkara, 2016), and behavioral intentions (Zeglat et al., 2016). Accordingly, this study proposes the following hypotheses:

✤ **$H_0 2$:** PRI does not have a significant influence on CS.

✤ **$H_a 2$:** PRI has a significant influence on CS.

Efficiency (EFF)

Zeithaml et al. (2002) have opined that EFF pertains to the customer's ability to reach the website, carry out an information search to locate the product sought, and check out the website with the least effort. Parasuraman et al. (2005, p. 220) defined EFF as the "ease and speed of accessing and using the site." It, thus, refers to the ease with which customers can access the website and the simplicity of the website. Research has indicated that EFF is an important factor in online retail, with convenience and time-saving being cited as key reasons to shop online (Ranganathan & Ganapathy, 2002). Other researchers have also opined that the website's efficiency plays a crucial role in customer satisfaction and loyalty (Yang & Fang, 2004). Accordingly, the following hypothesis has been considered:

ꚰ **$H_0 3$:** EFF does not have a significant influence on CS.

ꚰ **$H_a 3$:** EFF has a significant influence on CS.

System Availability (SYS)

Zeithaml et al. (2002) opined that the reliable functioning of the website is an important dimension of e-service quality. The E-SERVQUAL model developed by Parasuraman et al. (2005, p.220) defines SYS as "the correct technical functioning of the website." Consumers may face technical issues while browsing or shopping online, such as the website not loading its pages quickly, missing links, freezing pages, and crashing the website. These issues can lead to consumer frustration, leaving the website and moving to other competing sites, which can result in a loss of customers and also act as an impediment to generating customer loyalty (Santos, 2003). Therefore, SYS has been envisaged as one of the important dimensions of s-service quality in the E-SERVQUAL model, and hence, this study proposes the following hypothesis:

ꚰ **$H_0 4$:** SYS does not have a significant influence on CS.

ꚰ **$H_a 4$:** SYS has a significant influence on CS.

Customer Satisfaction (CS) and Customer Loyalty (CL)

Oliver (1980) has stipulated that CS is the evaluation of a product or service that a customer carries out concerning the expectations from that product or service. When the customer perceives that the product or service performance matches or exceeds the expectations, then the customer is satisfied. Conversely, the customer is dissatisfied if the performance falls below expectations (Amin, 2016). Geng and Chu (2012) conceptualized CS as an emotional reaction by the customer to the difference between their expectations and actual performance delivery. Previous research has examined e-service quality as an antecedent to CS (Gera, 2011; Udo et al., 2010), which can further lead to customer retention in both the online and offline retail environments (Dzogbenuku et al., 2014; Pandey et al., 2020).

Oliver (1997) postulated that CL is a deeply held commitment by a customer whereby the customer engages in rebuying a product/service or patronizing a store again consistently in the future and does so despite being exposed to situation influences that may have the potential to cause switching behavior. Other researchers have examined CL from an attitudinal perspective, indicating that CL can be derived from a sense of psychological involvement and goodwill concerning a product, service, or retailer (Kim et al., 2004; Santouridis et al., 2012). CL is important for every organization, especially in the intensely competitive online retail environment (Reichheld & Schefter, 2000). Research has indicated that a loyal customer purchases more than a newer customer, can be

serviced with lower operating costs, and engages in positive word of mouth (Van Riel et al., 2001). Previous research has also indicated that CS influences CL (Sheng & Liu, 2010).

The role of CS as a mediating variable between e-service quality dimensions and loyalty has also been examined by previous researchers (Abu-ELSamen et al., 2011; Jeon & Jeong, 2017). Therefore, this study seeks the examine the direct effect of CS on CL as well as the mediating role of CS in the relationship between e-service quality dimensions and CL and proffers the following hypotheses:

↳ **H_o5 :** CS does not have a significant influence on CL.

↳ **H_a5 :** CS has a significant influence on CL.

↳ **H_o6 :** CS does not mediate the relationship between FUL and CL.

↳ **H_a6 :** CS mediates the relationship between FUL and CL.

↳ **H_o7 :** CS does not mediate the relationship between PRI and CL.

↳ **H_a7 :** CS mediates the relationship between PRI and CL.

↳ **H_o8 :** CS does not mediate the relationship between EFF and CL.

↳ **H_a8 :** CS mediates the relationship between EFF and CL.

↳ **H_o9 :** CS does not mediate the relationship between SYS and CL.

↳ **H_a9 :** CS mediates the relationship between SYS and CL.

Based on the review of the literature and the hypotheses outlined, this study proposes the following conceptual model pictorially depicted in Figure 1.

Figure 1. *Proposed Conceptual Model*
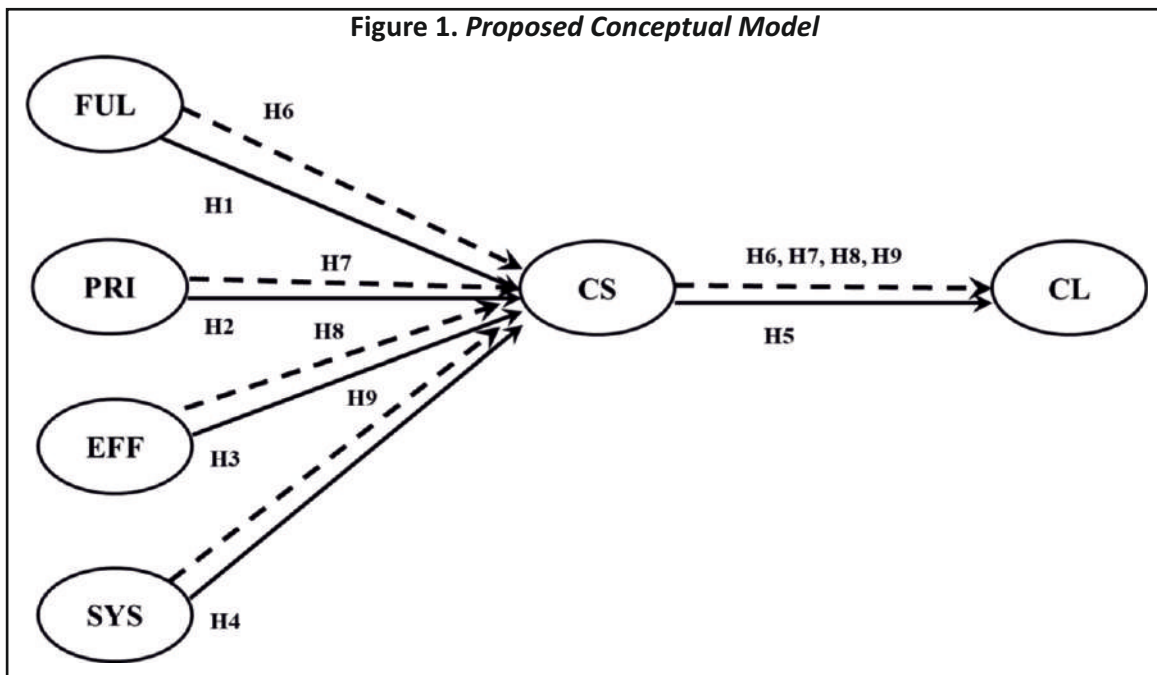
Objectives of this Study

This paper seeks to fulfill the following objectives:

(1) To empirically examine the impact of e-service quality on customer satisfaction in online apparel retail in India.

(2) To empirically examine the influence of customer satisfaction on customer loyalty in online apparel retail in India.

(3) To assess the mediating role of customer satisfaction in the relationship between e-service quality dimensions and customer loyalty.

Research Methodology

This research study employs a descriptive design and a quantitative approach to examining the impact of e-service quality dimensions on customer satisfaction and customer loyalty in the online apparel industry in India. The methodology adopted for developing the measures used in the questionnaire and the sampling design has been outlined in the paragraphs below.

Development of Measures

The conceptual model for the study comprises four exogenous constructs, which are the dimensions of e-service quality — FUL, PRI, EFF, and SYS and two endogenous constructs, CS and CL. In addition, the mediating effect of CS in the relationship between the four e-service quality dimensions and CL was also studied. The study relied on the well-established E-SERVQUAL scale for measuring the exogenous constructs of FUL, PRI, EFF, and SYS. Seven items for FUL, three for PRI, eight for EFF, and four for SYS were used as per the E-SERVQUAL scale (Parasuraman et al., 2005). In addition, five items for CS were adopted from Janda et al. (2002), and five items for measuring CL were adopted from Parasuraman et al. (2005).

Sampling

The study focused on Generation Z (Gen Z), which comprises people born from 1995 until about the mid-2000s, and millennials (those born between 1980 and 1995). These age strata were selected as the age groups of 18–24 years and 25–34 years contribute to almost 74% of digital consumer spending in India (The Boston Consumer Group, 2018). In addition, respondents in the age strata of 35–40 years were also considered as they form part of the millennial population.

Convenience sampling was used to gather the sample for the study. The questionnaire was sent out through social media platforms, including WhatsApp, Facebook, and LinkedIn, to have maximum reach. The survey was carried out from December 2020 to March 2021. A total of 268 questionnaires were received, and after removing duplicates, 239 questionnaires remained. As there were no missing values, all 239 questionnaires were used as the sample set for the study. Table 1 outlines the demographic profile of the respondents.

Results of Data Analysis

Sampling Adequacy

The Kaiser-Meyer-Olkin (KMO) test and the Bartlett test for Sphericity were conducted to assess the suitability of

Table 1. *Demographic and Purchasing Profile of Respondents*

Categories	Frequency	%
Gender		
Male	128	53.56
Female	111	46.44
Age Group		
18 – 24 years	144	60.25
25 – 34 years	58	24.27
35 – 40 years	37	15.48
Last online apparel purchase		
Less than 3 months ago	84	35
3 – 6 months	56	23
6 – 12 months	72	30
More than 12 months	27	11
Frequency of online apparel purchase		
Rarely	43	18
Once a year	20	8
Once in 6 months	61	26
Sometimes—once in 3 months	73	31
Very frequently—multiple times in a month	42	18

Table 2. *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.932
Bartlett's Test of Sphericity	Approx. Chi-Square	3952.671
	df	496
	Sig.	0.000

the dataset for further analysis. The KMO measure for the study was 0.932, signifying good sample adequacy. The values for the Bartlett test were also significant. Table 2 provides the results of the KMO and Bartlett tests.

Construct Reliability and Validity

The reliability of the constructs used in the study was assessed through Cronbach's α. The construct validity was investigated through confirmatory factor analysis (CFA) and assessing the factor loadings, average variance extracted (AVE), and composite reliability (CR). The Cronbach's α values for the constructs ranged from 0.749 to 0.863, all above the acceptable threshold of 0.7 (Nunnally, 1978). Factor loadings, CR, and AVE, were examined to assess the convergent validity. Table 3 outlines the values of Cronbach's α, factor loadings, CR, and AVE for all the constructs. All the questionnaire items exhibit factor loadings well above the threshold levels, thus exhibiting good convergent validity. In addition, all except one construct of SYS demonstrate a CR higher than the acceptable threshold of 0.7 (Fornell & Larcker, 1981). The construct of SYS demonstrated a CR of 0.68, which is very close to the acceptable threshold. The AVE of three of the six constructs was above 0.5, with the other three constructs demonstrating a slightly lower AVE. Nevertheless, Fornell and Larcker (1981, p. 46) opined that "on the basis of p_n

Table 3. *Reliability and Validity of the Test Results*

	Items	Loading of Factors	Cronbach's Alpha	Average Variance	Composite Reliability
Fulfillment *(FUL)*	FUL1	0.524	0.853	0.44	0.85
	FUL2	0.672			
	FUL3	0.659			
	FUL4	0.697			
	FUL5	0.723			
	FUL6	0.697			
	FUL7	0.652			
Privacy *(PRI)*	PRI1	0.763	0.813	0.60	0.82
	PRI2	0.800			
	PRI3	0.758			
Efficiency *(EFF)*	EFF1	0.555	0.835	0.38	0.83
	EFF2	0.598			
	EFF3	0.560			
	EFF4	0.604			
	EFF5	0.547			
	EFF6	0.666			
	EFF7	0.721			
	EFF8	0.677			
System Availability *(SYS)*	SYS1	0.608	0.749	0.35	0.68
	SYS2	0.556			
	SYS3	0.559			
	SYS4	0.625			
Customer Satisfaction *(CS)*	CS1	0.785	0.863	0.57	0.87
	CS2	0.747			
	CS3	0.757			
	CS4	0.731			
	CS5	0.760			
Customer Loyalty *(CL)*	CL1	0.773	0.858	0.57	0.87
	CL2	0.755			
	CL3	0.666			
	CL4	0.812			
	CL5	0.749			

(composite reliability) alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error." This has also been supported by Lam (2012), Punjani and Mahadevan (2022), and Punjani and Kumar (2021).

In addition to examining factor loadings, AVE, CR, and CFA were conducted to assess the measurement model fit. The measurement model for the study is depicted in Figure 2. The measurement model was examined by

calculating seven fit indices, as indicated in Table 4. The model scored a good fit on six indices and an acceptable fit on one of the indices.
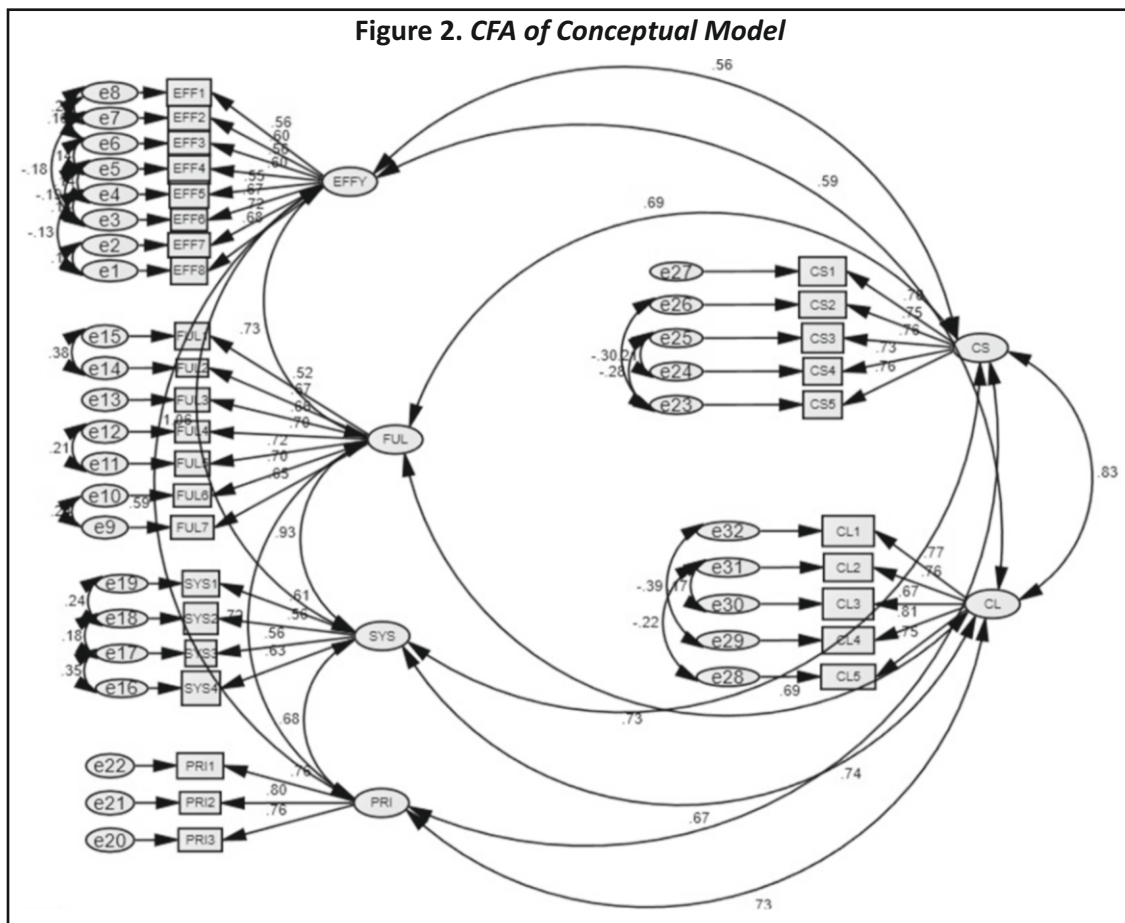

Figure 2. *CFA of Conceptual Model*

Table 4. *CFA Fit Indices*

	Threshold Value	Value as per CFA	Result
CMIN/*df*	Between 1–3	1.321	Good
GFI	More than 0.9	0.872	Acceptable
CFI	More than 0.95	0.962	Good
TLI	More than 0.95	0.956	Good
PNFI	More than 0.6	0.745	Good
RMSEA	Less than 0.08	0.037	Good
SRMR	Less than 0.08	0.0487	Good

Legend : CMIN—Common Minimum Discrepancy; GFI—Goodness of Fit Index; CFI—Comparative Fit Index; TLI—Tucker Lewis Fit ; PNFI—Parsimonious Normal fit ; RMSEA—Root mean square error of approximation ; SRMR—Standardized Root Mean Square Residual.

The discriminant validity was also tested, and the results indicate that all the constructs exhibit good discriminant validity. Table 5 provides the results of the discriminant validity.

The study employed structural equation modeling (SEM) using AMOS software to test the hypotheses. Figure 3 depicts the structural equation model, while Table 6 indicates the results of testing the direct relationships between FUL, PRI, EFF, and SYS with CS.

Table 5. *Discriminant Validity*

	FUL	PRI	EFF	SYS	CS	CL
FUL	**0.663**					
PRI	0.202	**0.773**				
EFF	0.168	0.163	**0.618**			
SYS	0.234	0.203	0.262	**0.587**		
CS	0.170	0.217	0.135	0.181	**0.756**	
CL	0.217	0.256	0.172	0.211	0.259	**0.752**

Figure 3. *Structural Equation Model*
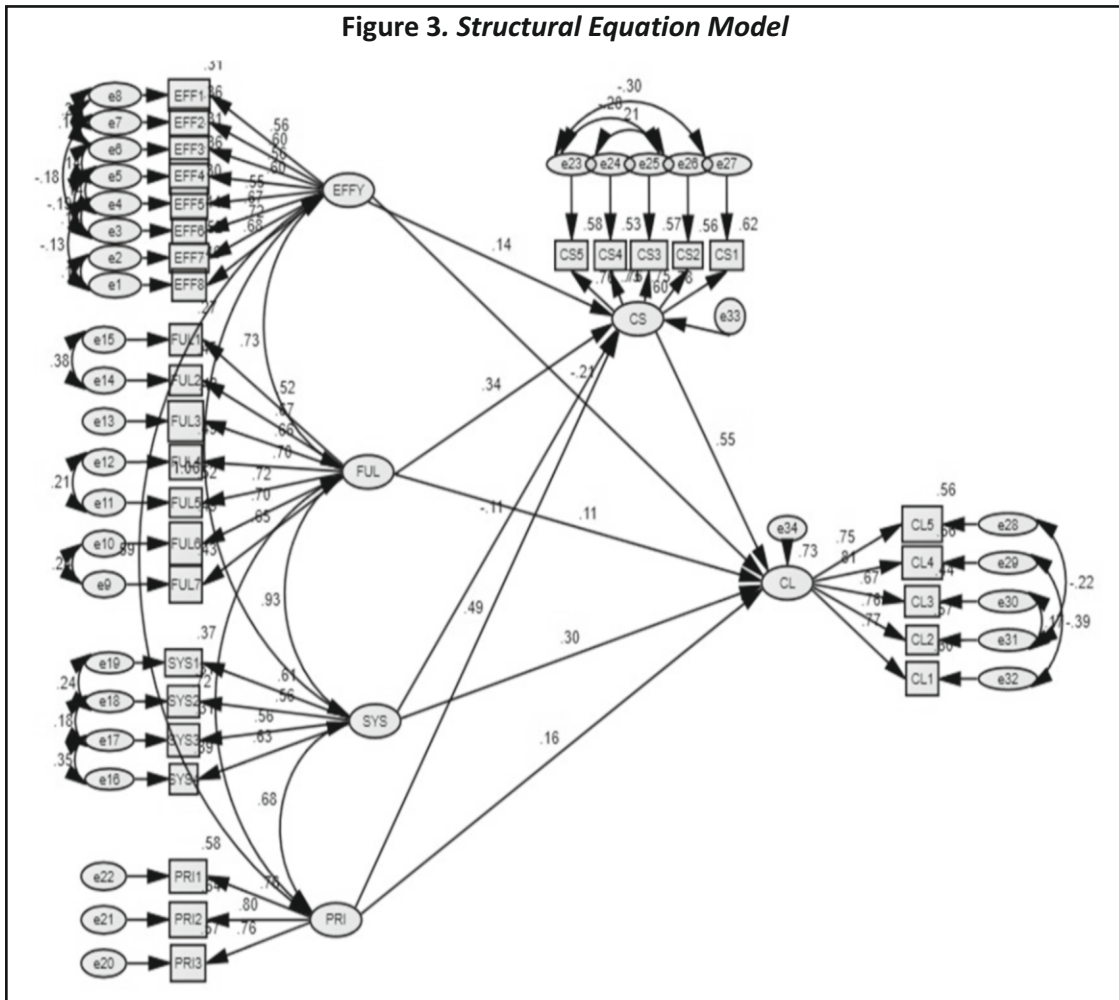
Table 6. *Hypotheses Testing Results – Direct Relationships*

	Hypothesized Relationship	Regression Weights	*p*-value	Result
H$_a$1	FUL → CS	0.108	0.024	Supported
H$_a$2	PRI → CS	0.489	***	Supported
H$_a$3	EFF → CS	0.140	0.477	Not supported
H$_a$4	SYS → CS	–0.113	0.620	Not supported
H$_a$5	CS → CL	0.555	***	Supported

Table 7. *Hypotheses Testing Results – Simple Mediation*

Total Effect			Direct Effect			Indirect Effect				Outcome
Estimate	SE	*t*-value	Estimate	SE	*t*-value	Estimate	S.E	Bias Corrected Bootstrap confidence interval (95%)		
								LLCI	ULCI	
H$_a$6—CS mediates the relationship between FUL and CL.										
0.669	0.055	12.152	0.329	0.055	6.004	0.314	0.045	0.227	0.402	Partial Mediation
H$_a$7—CS mediates the relationship between PRI and CL.										
0.420	0.039	10.850	0.152	0.040	3.772	0.368	0.043	0.281	0.453	Partial Mediation
H$_a$8—CS mediates the relationship between EFF and CL.										
0.610	0.66	9.225	0.250	0.059	4.271	0.303	0.063	0.180	0.425	Partial Mediation
H$_a$9—CS mediates the relationship between SYS and CL.										
0.478	0.057	8.412	0.150	0.051	2.957	0.329	0.062	0.209	0.450	Partial Mediation

Legend : SE = Standard error, LLCI = Lower limit confidence interval, ULCI = Upper limit confidence interval.

The mediating effect of CS between the e-service quality dimensions and CL was tested using the Preacher and Hayes (2004) approach using the "PROCESS" macro for SPSS written by Andrew F. Hayes. Table 7 provides the results of the mediation analysis.

Discussion and Conclusion

This study has examined the influence of e-service quality dimensions on customer satisfaction, the influence of customer satisfaction on customer loyalty, and the mediating role of customer satisfaction in the relationship between e-service quality dimensions and customer loyalty. The empirical investigation indicates that two e-service quality dimensions, viz., FUL and PRI, have a significant impact on customer satisfaction. This is in line with the findings of Park and Kim (2011) and Rodríguez et al. (2020). On the other hand, the e-service quality dimensions of EFF and SYS do not significantly impact customer satisfaction. This could be because customers do not place great importance on these two dimensions to be satisfied with their purchase. It could be that the Indian customer, especially in the age strata examined in this study, is fairly conversant with the use of internet technology and browsing and making online purchases through the internet and hence, does not place EFF as an antecedent to CS. This is in line with the findings of Herington and Weaven (2009), who concluded that EFF has

the least important effect on CS as it may act as a hygiene factor. SYS relates to the technical functioning of the site. Customers may not be facing issues such as page freeze and site crashes, so do not place too much importance on this factor. The study also finds that the partial mediation effect of CS between the e-service quality dimensions of FUL, PRI, EFF, SYS, and CL is significant. This would indicate that e-retailers need to repeatedly ensure that customers are satisfied with all aspects of the transaction to turn them into loyal customers.

Theoretical Implications

While previous research in the domain of e-service quality has focused on examining the impact of e-service quality on various constructs, such as perceived value, customer trust, customer satisfaction, and customer loyalty individually, this study contributes to the knowledge creation in this domain by evaluating the e-service quality impact through the quality-satisfaction-loyalty chain. This is an important contribution, especially in the Indian online apparel industry context, as this has remained a previously under-researched area in the academic literature. This study, therefore, contributes to the academic body of literature in the online apparel industry by testing the e-service quality dimensions as envisaged in the E-SERVQUAL model and their impact on customer satisfaction and customer loyalty in the online apparel shopping context in India. The study, therefore, answers the context-specific call for e-service quality research specified by previous researchers (Herington & Weaven, 2009 ; Santos, 2003). Additionally, the study extends the applicability of the E-SERVQUAL model tested in other industry and country-specific contexts to the Indian online apparel consumer context across various age demographics.

Managerial Implications

Apparel e-retailing is a competitive business in India, and providing e-service quality will go a long way in generating higher levels of customer satisfaction. Enhanced levels of customer satisfaction will enable apparel e-retailers to retain customers and pave the way for higher levels of loyalty from existing customers. It is evident from the study that customers who purchase apparel online lay great emphasis on the fulfillment aspects of the transaction. Item availability as per what is promised on the website, making truthful promises about an item delivery, and quick order fulfillment are what the customer expects from the apparel e-retailer. Therefore, e-retailers in this segment need to concentrate on their logistics and transportation systems to fulfill their delivery promises. Equally important is the issue of privacy from the customer's point of view. Concerns about sharing private information, security of the information provided, and assurance that the apparel e-retailer has robust security policies and systems are issues that need consideration. This effort will build trust in the minds of the customer, which can translate into customer satisfaction and loyalty. It is also evident that the overall ease of use of the website, represented by the website efficiency and the technical functioning of the website, now holds lesser importance in the customer's mind regarding satisfaction levels.

Limitations of the Study and Future Research Directions

One limitation of the study is that it has been carried out in a country-specific context. Secondly, the study considers age strata only between 18 – 40 years. Future researchers can also investigate the impact of e-service quality dimensions with respect to older age groups. Finally, the impact of e-service quality on other constructs, such as trust, customer experience, and behavioral intentions, can also be investigated.

Authors' Contribution

Dr. Sujata Joshi conceived the idea of undertaking the empirical study. Kala Mahadevan conceptualized the methodology, developed the questionnaire using established scales, and collected the data. Kala Mahadevan carried out the data analysis in consultation with Dr. Sujata Joshi. Kala Mahadevan wrote the manuscript, and Dr. Sujata Joshi supervised and edited the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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Appendix

Questionnaire used for the Study

Constructs	Statements	Source
FUL	*FUL1* - It delivers orders when promised.	Parasuraman et al. (2005)
	FUL2 - This site makes items available for delivery within a suitable time period.	
	FUL3 - It quickly delivers what I order.	
	FUL4 - It sends out the items ordered.	
	FUL5 - It has in stock the items the company claims to have.	
	FUL6 - It is truthful about its offerings.	
	FUL7 - It makes accurate promises about delivery of products.	
PRI	*PRI1* - It protects information about my web shopping behavior.	Parasuraman et al. (2005)
	PRI2 - It does not share my personal information with other sites.	
	PRI3 - This site protects information about my credit card.	
EFF	*EFF1* - This site makes it easy to find what I need.	Parasuraman et al. (2005)
	EFF2 - It makes it easy to get anywhere on this site.	
	EFF3 - It enables me to complete a transaction quickly.	
	EFF4 - Information at this site is well organized.	
	EFF5 - It loads its pages fast.	
	EFF6 - This site is simple to use.	
	EFF7 - This site enables me to get on to it quickly.	
	EFF8 - This site is well organized.	
SYS	*SYS1* - This site is always available for business.	Parasuraman et al. (2005)
	SYS2 - This site launches and runs right away.	
	SYS3 - This site does not crash.	
	SYS4 - Pages at this site do not freeze after I enter my order information.	
CS	*CS1* - Based on all of my experience with this online retailer, I feel very satisfied.	Janda et al. (2002)
	CS2 - Overall, I am satisfied with the decision to purchase from this online retailer.	
	CS3 - My choice to do business with this online retailer was a wise one.	
	CS4 - I think I did the right thing when I decided to use this online retailer for making this purchase.	
	CS5 - My overall evaluation of the services provided by this online retailer is very good.	
CL	*CL1* - I will say positive things about this site to other people.	Parasuraman et al. (2005)
	CL2 - I will recommend this site to someone who seeks my advice.	
	CL3 - I will encourage friends and others to do business with this site.	
	CL4 - I will consider this site to be my first choice for future transactions.	
	CL5 - I will do more business with this site in the coming months.	

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