

Beyond Convenience: Understanding E-Service Quality Role In Fostering E-Customer Satisfaction And Loyalty

Siti Yolanda Rahman Utami^{1*}, Edy Yulianto², and Agung Nugroho L.I.F.³

^{1,2,3}*Department of Master Administration Business, Faculty of Administration, Brawijaya University, Malang, Indonesia*

Email Address:

*yolandarahman99@gmail.com**, *edy_y_fia@ub.ac.id*, *agungn_fia@ub.ac.id*

**Corresponding author*

Submitted 25-12-2023

Reviewed 15-03-2024

Revised 19-03-2024

Accepted 19-03-2024

Published 13-06-2024

Abstract: This research investigates the relationships between e-service quality, customer satisfaction, and loyalty within Indonesian e-commerce, explicitly focusing on the Shopee platform. Analyse 279 Shopee customers; the study examines the impact of website design, customer service, security, and fulfilment on e-service quality, customer satisfaction and loyalty. Using the purposive sampling method and SEM-PLS inferential analysis, the findings highlight the significant influence of website design on e-service quality. In contrast, customer service and security exhibit no statistically significant impact. Interestingly, efficient fulfilment emerges as a pivotal factor in enhancing e-service quality. This study underscores the significant influence of e-service quality in paving e-customer loyalty, directly or indirectly, via the mediating role of customer satisfaction. The implications of the research extend to actionable insights for e-commerce enterprises, offering strategic guidance to navigate and succeed in the competitive digital landscape of Indonesia.

Keywords: E-Customer Loyalty; E-Customer Satisfaction; E-Service Quality; Indonesian E-Commerce.

Abstract: Penelitian ini menyelidiki hubungan antara kualitas layanan elektronik (e-service quality), kepuasan pelanggan, dan loyalitas dalam konteks e-commerce Indonesia, dengan fokus khusus pada platform Shopee. Dengan melibatkan 279 pelanggan Shopee, studi ini menguji pengaruh desain situs web, layanan pelanggan, keamanan, dan pemenuhan terhadap kualitas layanan elektronik, kepuasan pelanggan, dan loyalitas. Menggunakan metode penarikan sampel secara bertujuan dan analisis inferensial SEM-PLS, temuan penelitian menggarisbawahi pengaruh signifikan desain situs web terhadap kualitas layanan elektronik, sedangkan layanan pelanggan dan keamanan tidak menunjukkan dampak signifikan secara statistik. Menariknya, pemenuhan yang efisien muncul sebagai faktor penting dalam meningkatkan kualitas layanan elektronik. Penelitian ini menekankan pengaruh signifikan kualitas layanan elektronik dalam mengupayakan loyalitas pelanggan elektronik, secara langsung atau tidak langsung melalui peran mediasi kepuasan pelanggan. Implikasi penelitian ini meluas ke wawasan yang dapat ditindaklanjuti bagi perusahaan e-commerce, menawarkan panduan strategis untuk bernavigasi dan sukses dalam lanskap digital Indonesia yang kompetitif.

Keywords: Loyalitas Pelanggan Elektronik; Kepuasan Pelanggan Elektronik; Kualitas Layanan Elektronik; E-Commerce Indonesia.

INTRODUCTION

The Internet has become ubiquitous in Indonesia, with over 70 per cent of the population utilising it for online shopping (Kusnandar, 2021). This rapid embrace of e-commerce is driven by its inherent advantages - convenience, more comprehensive selection, and competitive prices (Tran & Vu, 2019). This e-commerce juggernaut is



particularly evident in Indonesia, where rapid technological advancements and surging internet usage have fueled a booming online marketplace (Damuri et al., 2020).

Indonesia is a global e-commerce titan, with a staggering 88.100 per cent of internet users actively purchasing products online (Lidwina, 2021). To delve deeper into Indonesian e-commerce consumer preferences, a study by the Internet Service Providers Association (APJII) sheds light on the driving forces behind online shopping. Cost is the prime motivator, with 15.200 per cent of respondents citing significantly lower online prices than brick-and-mortar stores. Other key factors include location independence (13.200 per cent), the streamlined nature of online transactions (10.300 per cent), and the lure of irresistible discounts and promotions (8.300 per cent) (APJII, 2022).

However, more than offering low prices is needed to thrive in this burgeoning market. E-commerce businesses must prioritise excellent customer service to cultivate customer satisfaction, the cornerstone of building long-term customer loyalty (Sasono et al., 2021). Customer loyalty is not merely a one-time purchase but a deep-rooted commitment built through positive experiences and nurtured over time. Loyal customers are the lifeblood of any business, driving repeat purchases and acting as brand ambassadors, spreading positive word-of-mouth and attracting new customers. A brand's long-term success relies not on one-time purchases but on the frequency of repeat purchases and customer recommendations (Tyagi & Dhingra, 2021).

Customer satisfaction serves as the bridge connecting e-service quality and loyalty. Customers feel valued and satisfied when they consistently have positive experiences with an e-commerce platform, marked by user-friendly interfaces, helpful customer service, and efficient deliveries (Darboe, 2022). This satisfaction fosters a sense of trust and commitment, ultimately leading to customer loyalty (Kaur & Soch, 2018). Loyal customers become repeat buyers, optimistic word-of-mouth advocates, and less susceptible to competitor enticements (Collins & Mostert, 2021).

E-service quality, encompassing website design, customer service, secure transactions, and reliable fulfilment, fosters customer satisfaction (Ashiq & Hussain, 2023). Studies consistently demonstrate a positive correlation between these factors (Y. P. Chang & Li, 2022), highlighting the importance of providing a seamless and satisfying online shopping experience. However, the precise nature of this relationship remains a topic of ongoing debate, with some studies proposing a direct impact of service quality on both satisfaction and loyalty (Subrahmanyam, 2017), while others argue for a sequential model where service quality leads to satisfaction, which then fosters loyalty (Marcos & Coelho, 2022). This study examines the direct and indirect impact of service quality on the satisfaction and loyalty of e-commerce customers. To the best of the author's knowledge, this particular model has yet to be employed previously to examine the impact of antecedents on e-customer loyalty in the context of Indonesian e-commerce.

Table 1. Previous Studies on e-Service quality and e-Customer loyalty

Num.	Author	Variable						
		WD	CS	SC	FU	ESQ	ECS	ECL
1	(Rita et al., 2019)	V	V	V	V	V	-	V
2	(Rawung et al., 2022)	V	V	V	V	-	V	-
3	(Bolo et al., 2021)	V	V	V	V	-	V	V
4	(Inandika, 2019)	V	V	V	V	-	V	-



Num.	Author	Variable						
		WD	CS	SC	FU	ESQ	ECS	ECL
5	(Hassan et al., 2020)	-	-	-	-	V	V	V
6	(Sasono et al., 2021)	-	-	-	-	V	-	V
7	(Tran & Vu, 2019)	-	-	-	-	V	V	-
8	(Amegbe et al., 2019)	-	-	-	-	V	V	V
9	(Rahmawaty, 2021)	-	-	-	-	V	V	V

Source: Author (2023)

Table 1 shows draws on insights from previous research, and this study explores how various factors contribute to a positive online experience for customers. "WD" means Website Design, and "CS" means Customer Service. These variables, along with Security and Fulfilment (marked "SC" and "FU"), affect how people feel about the overall service (called "e-Service Quality" or "ESQ"). This, in turn, affects how happy customers are ("e-Customer Satisfaction" or "ECS") and how likely they are to come back ("e-Customer Loyalty" or "ECL"). A check mark means the variable is included in the study, and a dash "-" means it is not.

This study employs the means-end concept, focusing on e-service quality as the primary variable and its supporting variables, such as website design, fulfilment, security/privacy, and customer service. Additionally, the study incorporates the expectancy disconfirmation concept, linking e-service quality, e-customer satisfaction, and e-customer loyalty. Specifically, the Theory of Reasoned Action (TRA) investigates e-Customer trust. Thus, three core theories serve as the foundation and novelty of this research.

Although research on e-servqual has been conducted extensively, more studies are still needed to investigate the simultaneous relationships among e-service quality, e-customer trust, e-customer satisfaction, and e-customer loyalty. Moreover, the utilisation of the e-servqual research model developed by (Blut, 2016) is limited due to its novelty and infrequent application. Despite the acknowledged significance of e-service quality and e-customer loyalty in marketing literature, the development and empirical validation of a research model examining e-service quality's impact on e-customer loyalty still needs to be improved. The conventional e-servqual measurement concept is deemed inappropriate for application in digital platform contexts. Therefore, this research adopts the means-end chain theory and expectancy disconfirmation theory to elucidate and predict the influence of e-service quality on e-customer loyalty in the digital platform context. This study delves deeper into the relationship between e-service quality and e-customer loyalty by incorporating e-customer trust and e-customer satisfaction as mediators to address inconsistencies in research findings. Additionally, the study endeavours to implement all three relevant theories: the means-end chain theory, expectancy disconfirmation theory, and the Theory of Reasoned Action. The findings of this research can be utilised to enhance e-commerce by leveraging the concept of e-service quality.

The relationship between e-service quality, customer satisfaction, and loyalty is complex and nuanced, particularly in the rapidly evolving context of Indonesia's e-commerce landscape. By understanding these factors and their interconnectedness, e-commerce businesses can develop effective strategies to attract and retain customers, ultimately unlocking success in this dynamic and competitive digital marketplace (THET, 2022).



THEORETICAL REVIEW

Means-End-Chain Theory (Zeithaml, 1988) posits that consumer choices are driven by the perceived consequences of product attributes that ultimately relate to personal values. Customers evaluate product features based on their ability to fulfil desired outcomes and align with their core values (Olson & Reynolds, 1983). Marketers can leverage this theory to identify value-driving attributes, prioritise product development efforts, and tailor messaging to resonate with target customer values (Orsingher et al., 2011).

Expectancy Disconfirmation Theory (EDT) (Oliver, 1999; Van Ryzin, 2004) proposes that customer satisfaction stems from the comparison between perceived product/service performance and prior expectations (Lin et al., 2018). Meeting or exceeding expectations leads to satisfaction while falling short results in dissatisfaction. Businesses can utilise EDT to manage customer expectations effectively, monitor satisfaction levels through performance-expectation comparisons, and implement improvements to bridge gaps (Baek et al., 2017).

Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1975): TRA posits that attitudes, subjective norms, and intentions collectively influence individual behaviour. Positive attitudes towards behaviour and the belief that others approve of it (subjective norm) strengthen an individual's intention to perform that behaviour (Blue, 1995). TRA offers a valuable framework for understanding and predicting customer choices, allowing businesses to design marketing campaigns that shape positive attitudes, leverage social influence, and ultimately influence purchase intentions (Ajzen, 1982).

In e-commerce, achieving success is inextricably linked to delivering outstanding e-service quality. This concept transcends merely having a website; it encompasses the commitment to crafting a seamless, efficient, and trustworthy experience for every customer interaction. As Khatoun et al. (2020) suggested, e-service quality's key dimensions spanning efficiency, reliability, fulfilment, privacy, contact, security, design, and trust demand careful consideration. Measuring e-service quality necessitates a multi-faceted strategy, incorporating analytics, customer feedback, and continuous technological monitoring (Tabaeeian et al., 2023).

E-service quality is vital in e-commerce and a cornerstone for competitive advantage, customer satisfaction, and trust-building (Hanif et al., 2024). Businesses prioritising e-service quality reap the rewards of enhanced brand reputation, reduced customer churn, increased customer loyalty, and positive word-of-mouth marketing. Moreover, adapting to evolving consumer expectations is paramount for sustained success in this dynamic landscape (Felix & Rembulan, 2023).

Investing in e-service quality is an investment in customer satisfaction, loyalty, and the overall health of an e-commerce business. By prioritising the delivery of exceptional online services, businesses position themselves for a thriving presence in the competitive and ever-evolving world of e-commerce.

Customer satisfaction revolves around how customers perceive their experience against pre-established expectations. If performance falls short, dissatisfaction sets in; if it meets expectations, it feels satisfied, and if it exceeds them, it feels very satisfied (Yang et al., 2023). This perception stems from comparing service quality with various dimensions, ultimately making customer satisfaction a benchmark for a company's success (Gupta et al., 2023). Meeting and exceeding customer expectations is crucial for any business. These



expectations are shaped by word-of-mouth, personal needs, past experiences, and external communication (J.-H. Chang & Wang, 2019). Several strategies can achieve this, like relationship marketing, superior customer service, unconditional guarantees, and effective complaint handling (Ahsan & Rahman, 2022).

Companies can gauge customer satisfaction through various methods, such as complaint and suggestion systems, ghost shopping, lost customer analysis, and customer satisfaction surveys (Surahman, 2023). Measuring customer satisfaction online, which hinges on technology, shopping, and product factors, becomes even more critical (Sumrit & Sowijit, 2023). Banks, in particular, should prioritise e-Servqual and e-commerce strategies to ensure online customer satisfaction in this evolving landscape.

Customer loyalty is not merely a one-time purchase but a deep-rooted commitment built through positive experiences and nurtured over time. Loyal customers are the lifeblood of any business, driving repeat purchases, acting as brand ambassadors, spreading positive word-of-mouth, and attracting new customers. A brand's long-term success relies not on one-time purchases but on the frequency of repeat purchases and customer recommendations (Tyagi & Dhingra, 2021).

As (Cheng et al., 2024) defined, e-customer loyalty hinges on fostering a sense of comfort and familiarity that drives repeat visits and transactions. (Ashiq & Hussain, 2023) defined e-Customer loyalty as a favorable attitude towards the online platform. By focusing on critical indicators like website preference, trust, and positive user experience, as identified by (Bray, 2024), businesses can cultivate a loyal online community that thrives on convenience, positive interactions, and a sense of belonging. By designing meaningful customer experiences and adapting to the evolving digital landscape, businesses can turn fleeting transactions into lasting relationships, driving sustainable growth and solidifying their position in the marketplace.

(Rita et al., 2019) argue that electronic service quality comprises four dimensions: website design, customer service, privacy, and fulfilment. Website design encompasses elements related to the customer's online experience, such as information quality, website aesthetics, purchasing processes, website convenience, product selection, pricing, website personalisation, and system availability. Efficient website design could emphasise usability, aesthetics, brand image, and customer attraction (Tsai, 2017). (Rita et al., 2019) assert that website design has the highest impact on e-service quality compared to other service quality dimensions. Therefore, the hypothesis that can be proposed is:

H1: Website design significantly influences e-Service Quality.

Customer service refers to the level of service and return handling policies during and after sales (Rita et al., 2019). Offline businesses traditionally have service staff assisting customers throughout the purchasing process. In online business, customers often navigate the entire purchasing process independently without customer service (De Keyser et al., 2019). Certain online businesses offer customer service facilities that allow customers to request detailed information about the products they intend to purchase. Typically, companies utilise web-based synchronous media such as live chat facilities, online help desks, and social networking sites (McLean & Osei-Frimpong, 2017). (Rita et al., 2019) identify four factors (website design, fulfilment/reliability, privacy/security, and customer service) as significant predictors of customer assessments regarding service quality. (Rita et



al., 2019) state that customer service contributes to the quality of electronic services. Based on this exposition, the hypothesis that can be posited is:

H2: Customer service significantly influences e-Service Quality.

The website should emphasise assurance and security to enhance credibility and service quality (AL-Hawary & AL-Smeran, 2017). (Acquisti et al., 2018) demonstrate that an effective website should exhibit privacy and security features. When customers make online purchases, it necessitates inputting personal information such as name, address, contact number, and credit card details (Susanto et al., 2021). Throughout this process, customers consistently worry about whether the website will protect them from fraud post-transaction. Security or privacy refers to the safety of credit card payments and shared information (Tseng et al., 2023).

(Ighomereho et al., 2022) assert that security significantly influences overall e-service quality statistically. (Rita et al., 2019) mention that four factors (website design, fulfilment or reliability, privacy, and customer service) strongly predict customers' service quality evaluations. Security significantly and positively impacts overall e-service quality (AL-Hawary & AL-Smeran, 2017; Rita et al., 2019). The security and privacy of a website are crucial in evaluating the quality of online store services (Rita et al., 2019). Based on the discussion above, the hypothesis that can be posited is:

H3: Security significantly influences e-Service Quality.

Fulfilment refers to ensuring customers receive what they have ordered, including delivery timeliness, order accuracy, and delivery conditions (Heydari et al., 2020). This attribute can only be assessed post-payment. Order fulfilment serves as a determinant of e-service quality (Ashiq & Hussain, 2023). According to Rita et al. (2019), post-payment dissatisfaction is more likely to occur in online shopping than in offline shopping, as customers can only inspect products directly after purchasing. Companies must ensure timely delivery, order accuracy, and delivery conditions to provide excellent service quality to customers.

(Rita et al., 2019) identify four factors (website design, fulfilment/reliability, privacy/security, and customer service) that significantly predict customer assessments of service quality. (Sasono et al., 2021) assert that fulfilment significantly influences overall e-service quality. Fulfilment has the highest impact on e-service quality (Rita, 2019). Based on the exposition above, the hypothesis that can be posited is:

H4: Fulfilment significantly influences e-Service Quality.

According to (Rita et al., 2019), customer satisfaction is a consequence of the customer's experience during the purchase process. It is crucial in influencing future customer behaviour, such as online repurchase and loyalty. The increased e-service quality in Internet banking will result in enhanced customer satisfaction. Within the means-end-chain theory, overall e-service quality can be linked to key outcomes such as customer satisfaction (Vatolkina et al., 2020). Additionally, the expectancy disconfirmation theory is



an essential framework for measuring customer satisfaction based on perceived product or service quality (Hossain, 2019).

(Uzir et al., 2021) assert that the conceptual model of service quality highlights the alignment between service quality standards and customer standards, reducing service performance gaps and enhancing perceived customer value in the quality system. Consequently, this alignment can lead to higher customer satisfaction. (Sasono et al., 2021) state that e-service quality significantly and positively influences e-customer satisfaction. (Tran & Vu, 2019) contends that e-service quality has a direct positive impact on e-customer satisfaction. Supporting this notion, (Juwaini et al., 2022) strengthen the hypothesis that e-service quality significantly and positively affects e-customer satisfaction. (Shared, 2019) affirms the positive influence of overall e-service quality on e-customer satisfaction. (Rita et al., 2019) emphasise the positive impact of e-service quality on e-customer satisfaction.

(San et al., 2020) posit a strong correlation between e-Service Quality and customer satisfaction. Furthermore, (Rahmawaty, 2021) states that e-service quality positively and significantly impacts e-customer satisfaction. Based on these explanations, the hypothesised relationship can be formulated as follows:

H5: e-Service Quality significantly influences e-Customer satisfaction.

Customer satisfaction is the most significant factor influencing loyalty (Leninkumar, 2017). The ultimate goal of the expectancy disconfirmation theory is to foster loyal customers for a specific website (Lin et al., 2018). (Arif et al., 2023) demonstrate that satisfaction affects consumers' post-purchase intention to repurchase a product or reuse a service. According to (Zhou et al., 2019), the quality and satisfaction of electronic services are significant predictors of loyalty. When customers are satisfied with a website, they are more inclined to interact with it in the future, becoming loyal customers (Adwan et al., 2020). Increased e-customer satisfaction leads to enhanced e-customer loyalty (Sathiyavany & Shivany, 2018).

(They, 2019) assert that e-service quality and e-customer satisfaction significantly positively influence e-customer loyalty in online transactions in Malaysia. (Juwaini et al., 2022) state the positive effect of e-customer satisfaction on e-customer loyalty. (Sasono et al., 2021) affirm that e-customer satisfaction significantly and positively influences e-customer loyalty. Additionally, e-customer satisfaction positively and significantly impacts e-customer loyalty (Rahmawaty, 2021). Furthermore, customer satisfaction influences customer loyalty in online shopping (Rita et al., 2019). Based on this exposition, the hypothesised relationship is:

H6: e-Customer Satisfaction significantly influences e-Customer Loyalty positively.

In delivering superior service quality to influence electronic satisfaction and customer loyalty, online retailers must pay closer attention to the attributes consumers utilise in evaluating their electronic service quality. Low prices and web presence are no longer considered the sole drivers of success (Dwivedi et al., 2021). E-customer loyalty is the consumer's intention to revisit a website and consider making future purchases from it (Miao et al., 2021). The Evolution of Expectancy Disconfirmation Theory indicates that this theory



can measure the service quality and information provided by B2C E-commerce from the customer's perspective (Rachbini et al., 2021).

According to (Revilla-Camacho et al., 2017), electronic service quality influences customer loyalty in online shopping. (Sasono et al., 2021) assert that e-service quality significantly and positively influences e-customer loyalty. The improvement of internet banking service quality results in increased e-customer loyalty. (Pasaribu, 2023) strengthens the hypothesis that e-service quality significantly and positively influences the e-customer loyalty of Go-Jek customers. (Shafiee & Bazargan, 2018) state that e-service quality and e-customer satisfaction significantly and positively impact e-customer loyalty in online transactions in Malaysia. (Tran & Vu, 2019) and (Rahmawaty, 2021) argue that e-service quality directly impacts e-customer loyalty. Based on the exposition above, the hypothesis that can be posited is:

H7: E-Service Quality significantly influences e-Customer loyalty.

E-customer satisfaction can be defined as the customer's satisfaction regarding their prior purchasing experience with a specific e-commerce company, resulting in favourable responses such as repeat purchases and recommendations (Sasono et al., 2021). Satisfied consumers repeat purchases and recommend products or services (Meesala & Paul, 2018). Conversely, dissatisfied customers are likely to choose alternative companies and exhibit no inclination to establish relationships with the previous company (Hayati et al., 2020).

(Hansopaheluwakan, 2021) reinforces the hypothesis that e-service quality significantly influences e-customer loyalty through e-customer satisfaction. (Sasono et al., 2021) research concludes that the role of e-customer satisfaction significantly mediates the impact of e-service quality on e-customer loyalty. (Miao et al., 2021) findings state that e-customer trust and e-customer satisfaction act as mediators in developing e-customer loyalty in the context of online clothing stores for female online apparel buyers. Additionally, e-service quality positively and significantly impacts e-customer loyalty through e-customer satisfaction (Rahmawaty, 2021). Based on these discussions, the following hypothesis can be posited:

H8: e-Service Quality significantly influences e-Customer Loyalty mediated by e-Customer Satisfaction.



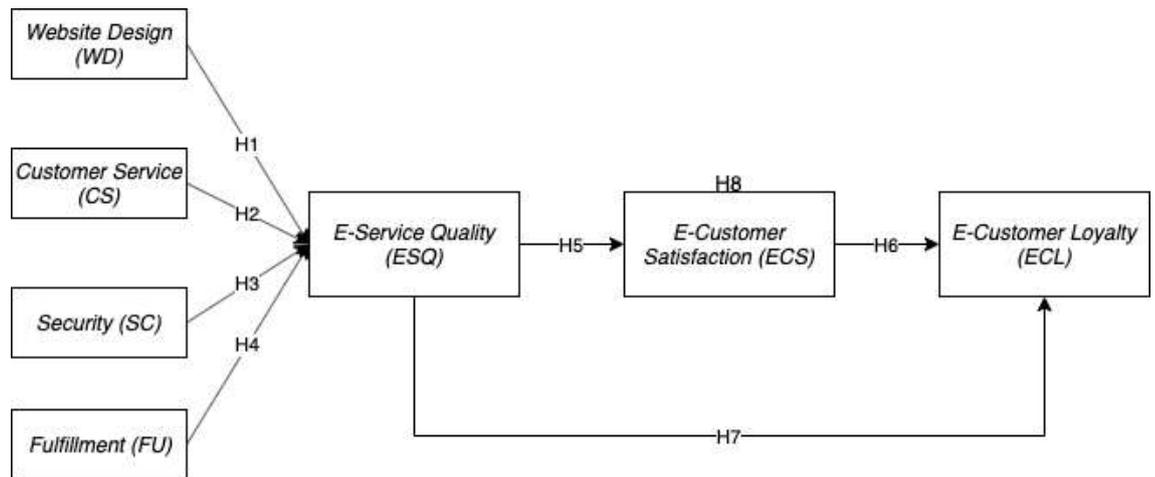


Figure 1. Research Model

Source: Author (2023)

METHODS

This study takes a quantitative approach, utilising numerical data to assess variables linked to online shopping behaviour on Shopee (Apuke, 2017). It aims to explain the relationships between these variables, specifically how factors influence each other (Bloomfield & Fisher, 2019) through surveys distributed to Indonesian Shopee users. The target population encompasses all Indonesian internet users who have purchased on Shopee within the past six months and are aged 17 or older. Due to the lack of precise user statistics, the population size remains to be discovered, prompting the use of non-probability sampling. To ensure participants meet the study criteria, purposive sampling focuses on individuals with Shopee usage experience (Asiamah et al., 2017).

A minimum sample size of 155 Shopee users in Indonesia is determined based on statistical considerations and Hair's recommendations for SEM analysis with a significance level of 5 per cent (Hair et al., 2022). Both primary data, collected through questionnaires, and secondary data, such as existing statistical reports, contribute to the study's findings. The questionnaire was designed to measure four types of variables: independent variables (Website Design, Customer Service, Security, and Fulfillment), a dependent variable (e-Customer Loyalty), and two mediating variables (e-Service Quality and e-Customer Satisfaction). The measurement scale used a Likert scale with scores ranging from 1 to 5 (Zebardast & Radaei, 2022). Two hundred seventy-nine valid responses were successfully retrieved and analysed using PLS-SEM.

This study employed quantitative rigour of PLS-SEM to explore the relationships between e-service Quality, e-customer Satisfaction, Trust, and Loyalty in online shopping. Descriptive statistics initially unveiled trends and patterns, laying a foundation for more nuanced analysis. PLS-SEM is deployed to evaluate both the measurement and structural models. Validity tests ensured the validity and reliability of constructs, encompassing indicator reliability, convergent validity, and discriminant validity (Hair et al., 2022). The structural model revealed crucial relationships and predictive power, while mediation testing further enriched the analysis (Hair et al., 2022).



To assess convergent validity, this study examined the correlations between item scores calculated using SmartPLS (Hair et al., 2022). Loading factors above 0.700 indicate strong indicator reliability, while items with values below this threshold should be removed from the measurement model. This study considered the Average Variance Extracted (AVE) above 0.500 to further strengthen convergent validity.

Reliability refers to the accuracy and consistency of a research instrument (Souza et al., 2017). When administered repeatedly under the same conditions, a reliable instrument should produce similar results. This study employed Cronbach's alphas with a 0.600 value threshold, calculated using SmartPLS, to evaluate the reliability of our instrument (Kamranfar et al., 2023). Discriminant validity is reached when a construct's correlation with a measurement item (indicator) is more robust than its correlations with other constructs; this suggests that the latent construct is a better predictor of that indicator than other constructs. To assess discriminant validity, this study examined the HTMT Ratio with a threshold value below or equal to 0.900 (Franke & Sarstedt, 2019).

RESULTS

Two hundred seventy-nine respondents in this study were classified based on gender, latest education, job, monthly income, and length of time purchasing via Shopee, as presented in **Table 2**.

Table 2. Respondents' Characteristics

	Item	Frequency	Percentage
Gender	Women	201	72.043
	Men	78	27.957
Age (Year(s))	23 to 27	94	33.692
	18 to 22	61	21.864
	28 to 32	53	18.996
	32 to 36	27	9.677
	42 to 46	16	5.735
	37 to 41	11	3.943
	47 to 51	9	3.226
	52 to 56	5	1.792
	57 to 60	3	1.075
Latest Education	Bachelor	116	41.577
	Senior Highschool	99	35.484
	Diploma	43	15.412
	Master	21	7.527
Job	Student	81	29.032
	Entrepreneur	47	16.846
	Teacher	36	12.903
	Civil Servant	32	11.470



	Item	Frequency	Percentage
Monthly Income (Rupiah)	Housewife	27	9.677
	Others	23	8.244
	Employee	22	7.885
	Military	5	1.792
	Farmer	4	1.434
	Police Officer	2	0.717
	3,111,112 to 5,222,223	94	33.692
	1,000,000 to 3,111,111	77	27.599
	5,222,224 to 7,333,335	56	20.072
	7,333,336 to 9,444,447	24	8.602
	9,444,448 to 11,555,559	13	4.659
	(Choose not to closure)	5	1.792
	13,666,672 to 15,777,783	4	1.434
	11,555,560 to 13,666,671	3	1.075
17,888,896 to 20,000,000	3	1.075	
15,777,784 to 17,888,895	0	0.000	
Shopee Usage Duration (Year(s))	3 to 4	96	34.409
	1 to 2	90	32.258
	Below one year	64	22.939
	More than four years	29	10.394

Source: Author (2023)

The study first meticulously evaluated the measurement model to ensure the reliability and validity of the chosen constructs and their associated items. This involved examining the dimension and variable levels, employing statistical measures using Cronbach's Alpha, Average Variance Extracted, and Heterotrait-Monotrait Ratio. By thoroughly evaluating the measurement model at both the dimension and variable level, the study aimed to ensure that the chosen constructs are reliable, consistent, stable, and valid, meaning they truly measure what they are intended to measure. This strengthens the foundation for the subsequent analysis and interpretation of the research findings.

Table 3. Items, Loadings, Cronbach's Alpha, and AVE value

Variable	Dimension	Item	Outer Loading	Cronbach's Alpha	AVE
Website Design (WD)	<i>Information Quality (WD₁)</i>	WD.1.1	0.806	0.718	0.639
		WD.1.2	0.823		
		WD.1.3	0.770		
	<i>Website Aesthetics (WD₂)</i>	WD.2.1	0.753	0.753	0.671
		WD.2.2	0.869		
		WD.2.3	0.832		
	<i>Purchase Process (WD₃)</i>	WD.3.1	0.853	0.717	0.638
		WD.3.2	0.814		
		WD.3.3	0.724		



Variable	Dimension	Item	Outer Loading	Cronbach's Alpha	AVE		
Customer Service (CS)	<i>Website Convenience</i> (WD ₄)	WD.4.1	0.841	0.730	0.650		
		WD.4.2	0.815				
		WD.4.3	0.761				
	<i>Product Selection</i> (WD ₅)	WD.5.1	0.774				
		WD.5.2	0.840				
		WD.5.3	0.784				
	<i>Price Offerings</i> (WD ₆)	WD.6.1	0.850			0.732	0.650
		WD.6.2	0.799				
		WD.6.3	0.768				
	<i>Website Personalisation</i> (WD ₇)	WD.7.1	0.729			0.716	0.640
		WD.7.2	0.806				
		WD.7.3	0.860				
<i>System Availability</i> (WD ₈)	WD.8.1	0.786	0.718	0.638			
	WD.8.2	0.770					
	WD.8.3	0.839					
Customer Service (CS)	<i>Service Level</i> (CS ₁)	CS.1.1	0.769	0.714	0.637		
		CS.1.2	0.763				
		CS.1.3	0.858				
	<i>Return Handling/ Policies</i> (CS ₂)	CS.2.1	0.792			0.726	0.646
		CS.2.2	0.839				
		CS.2.3	0.778				
Security (SC)	<i>Security</i> (SC ₁)	SC.1.1	0.761	0.707	0.631		
		SC.1.2	0.860				
		SC.1.3	0.758				
	<i>Privacy</i> (SC ₂)	SC.2.1	0.824			0.781	0.696
		SC.2.2	0.848				
		SC.2.3	0.830				
Fulfillment (FU)	<i>Timeliness of Delivery</i> (FU ₁)	FU.1.1	0.784	0.722	0.642		
		FU.1.2	0.834				
		FU.1.3	0.785				
	<i>Order Accuracy</i> (FU ₂)	FU.2.1	0.823			0.708	0.630
		FU.2.2	0.792				
		FU.2.3	0.766				
	<i>Delivery Condition</i> (FU ₃)	FU.3.1	0.817			0.716	0.639
		FU.3.2	0.852				
		FU.3.3	0.724				
e-Service Quality (ESQ)	NA	ESQ.1	0.764	0.739	0.657		
e-Customer Satisfaction (ECS)	NA	ESQ.2	0.797				
		ESQ.3	0.866				
		e-Customer Loyalty (ECL)	NA	ECS.1	0.795	0.722	0.642
ECS.2	0.785						
ECS.3	0.823						
ECL.1	0.774						
e-Customer Loyalty (ECL)	NA	ECL.2	0.813	0.790	0.614		
		ECL.3	0.755				
		ECL.4	0.792				

Source: Author (2023)

The results confirmed excellent convergent (Loading Factor greater than 0.700, Cronbach's Alpha greater than 0.600, AVE greater than 0.500) as shown in **Table 3**. This means that the measures used in the study demonstrated strong convergent validity. The



result indicates that they are capturing the intended constructs they were designed to measure.

Table 4. HTMT Ratio

	WD	CS	SC	FU	ESQ	ECS	ECL
Website Design (WD)							
Customer Service (CS)	0.538						
Security (SC)	0.607	0.693					
Fulfillment (FU)	0.566	0.626	0.747				
e-Service Quality (ESQ)	0.585	0.479	0.582	0.788			
e-Customer Satisfaction (ECS)	0.546	0.352	0.547	0.656	0.756		
e-Customer Loyalty (ECL)	0.565	0.503	0.610	0.628	0.719	0.754	

Source: Author (2023)

As shown in **Table 4** shows, the HTMT values for all construct pairs are below 0.900, which indicates that all constructs have achieved discriminant validity. This means that the items used to measure each construct (e.g., Website Design, Customer Service, Security) capture unique aspects of those constructs and do not simply measure the same underlying concept. The result indicates that the items accurately captured the intended concepts without significant overlap.

Table 5. Path Coefficient Result

Hypothesis	Relationship	Original Sample (O)	T-Statistic	P-Values	Interpretation
1	WD -> ESQ	0.245	4.217	0	Significant
2	CS -> ESQ	0.013	0.245	0.807	Not Significant
3	SC -> ESQ	0.023	0.376	0.707	Not Significant
4	FU -> ESQ	0.509	8.473	0	Significant
5	ESQ -> ECS	0.564	10.991	0	Significant
6	ECS -> ECL	0.244	4.043	0	Significant
7	ESQ -> ECL	0.218	3.931	0	Significant
8	ESQ -> ECS -> ECL	0.138	3.836	0	Significant

Source: Author (2023)

Moving to the structural model, the analysis revealed significant relationships between the e-commerce platform features Website Design, Customer Service, Security, and Fulfillment—and the customer outcomes of Satisfaction, Trust, and Loyalty. All path coefficients were statistically significant (p is less than 0.050) except for hypotheses 2 and 3, as shown in **Table 5**.



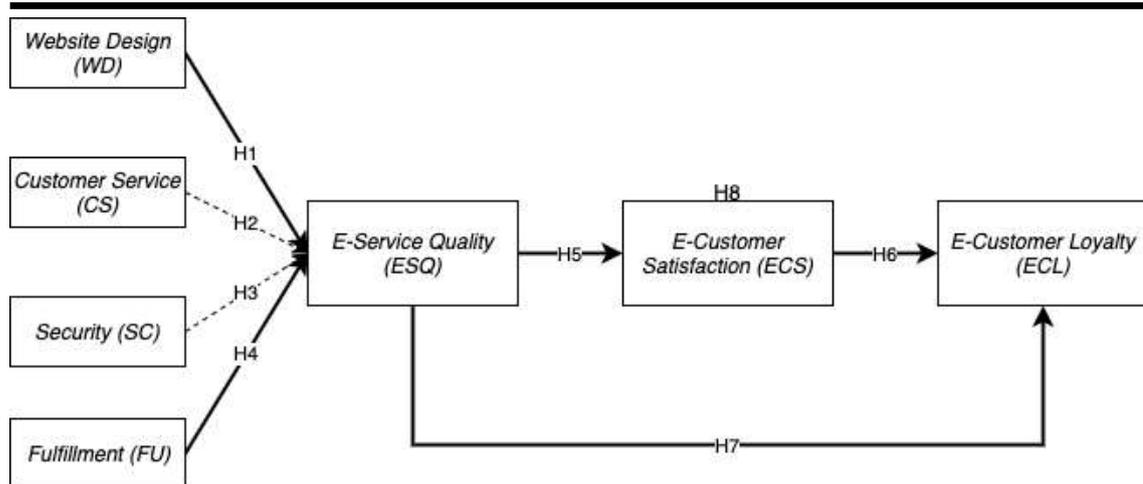


Figure 2. Research Model after Hypothesis Testing

Source: Author (2023)

The analysis results show that the variable Website Design (WD) exerts a significant favourable influence on e-Service Quality (ESQ), as indicated by the path coefficient value of 0.245. The positive direction of the relationship signifies that an improvement in Website Design (WD) corresponds to an enhancement in e-Service Quality (ESQ). Path analysis reveals a probability or significance value of 0.000 with an alpha level of 0.050 (p-value is less than 0.050), confirming the rejection of H0 and acceptance of H1.

The analysis further indicates that the variable Customer Service (CS) has a positive but non-significant impact on e-Service Quality (ESQ), reflected in the path coefficient value of 0.013. The positive direction implies that better Customer Service (CS) results in improved e-Service Quality (ESQ). However, path analysis shows a probability of 0.807 with an alpha of 0.050 (0.807 is more than 0.050), supporting the acceptance of H0 and rejection of H2.

Similarly, the analysis demonstrates that the variable Security (SC) has a positive yet non-significant effect on e-Service Quality (ESQ), evident in the path coefficient value of 0.023. The positive relationship indicates enhanced Security (SC) corresponds to improved e-Service Quality (ESQ). However, path analysis reveals a probability of 0.707 with an alpha of 0.050 (0.707 is more than 0.050), leading to the acceptance of H0 and rejection of H3.

On the other hand, the variable Fulfilment (FU) significantly and positively influences e-Service Quality (ESQ), as reflected in the path coefficient value of 0.509. The positive direction signifies that better Fulfilment (FU) results in improved e-Service Quality (ESQ). Path analysis yields a significance value of 0.000 with an alpha of 0.050 (less than 0.050), supporting the rejection of H0 and acceptance of H4.

Furthermore, the analysis reveals that the variable e-Service Quality (ESQ) significantly and positively influences e-Customer Satisfaction (ECS), with a path coefficient value of 0.564. The positive relationship suggests that higher e-Service Quality (ESQ) leads to increased e-Customer Satisfaction (ECS). Path analysis indicates a significance value of 0.000 with an alpha of 0.050 (0.000 is less than 0.050), resulting in the rejection of H0 and acceptance of H5.

Additionally, the variable e-Customer Satisfaction (ECS) significantly and positively affects e-Customer Loyalty (ECL), as indicated by the path coefficient value of 0.244. The



positive direction implies that improved e-Customer Satisfaction (ECS) corresponds to increased e-Customer Loyalty (ECL). Path analysis yields a significance value of 0.000 with an alpha of 0.050 (p-value is less than 0.050), supporting the rejection of H₀ and acceptance of H₆.

Moreover, the variable e-Service Quality (ESQ) significantly and positively influences e-Customer Loyalty (ECL), as evidenced by the path coefficient value of 0.218. The positive relationship suggests that enhanced e-Service Quality (ESQ) leads to increased e-Customer Loyalty (ECL). Path analysis indicates a significance value of 0.000 with an alpha of 0.050 (less than 0.050), resulting in the rejection of H₀ and acceptance of H₇.

Finally, statistical analysis using path analysis reveals that the variable e-Service Quality (ESQ) significantly and positively influences e-Customer Loyalty (ECL), mediated by e-Customer Satisfaction (ECS), with a path coefficient value of 0.138. The positive direction indicates that a higher level of e-Customer Satisfaction (ECS) strengthens the relationship between e-Service Quality (ESQ) and e-Customer Loyalty (ECL). Path analysis yields a significance value of 0.000 with an alpha of 0.050 (p-value is less than 0.050), supporting the rejection of H₀ and acceptance of H₈.

DISCUSSION

Website design is not just about aesthetics; it is a powerful tool for shaping customer experience and loyalty. This study sheds light on the significant positive influence of website design on e-service quality within the Shopee platform, indicating that the platform's design directly impacts the quality of electronic services offered. This correlation is attributed to information quality, visual appeal, overall website usability, good product selection, and reasonable pricing, enhancing customer satisfaction and streamlining the user journey. Furthermore, elements like clear product descriptions and seamless checkout processes contribute to the perceived quality of service. This aligns with the Means-End Chain theory, which posits that consumers associate personal meanings with website attributes like information quality. Implementing the research findings involves investing in user-centric website design, optimising features, and continuously monitoring user interactions to improve e-service quality. Shopee's effective information retrieval through a well-designed interface translates to positive functional and psychological consequences for customers, contributing to perceived value and satisfaction with the overall service, as suggested by previous research by (Ma'rifah, 2019) and (Rita et al., 2019).

While customer service might not directly translate into a significant boost in e-service quality, its positive influence should be noticed. The Means-End Chain theory again provides valuable insights here, highlighting the crucial role of customer understanding in purchase decisions. When customers encounter ambiguity during the Shopee buying process, they turn to customer service for clarification, forging a connection between service quality and responsiveness to individual needs. A previous study by (Rita et al., 2019) found that customer service only significantly affects overall e-service quality in Indonesian e-commerce customers. This finding is consistent with the results of the present study.

The research finding indicates that security did not emerge as a significant driver of e-service quality, suggesting that users may either trust existing security measures implicitly or prioritise other aspects of service quality over security. This could be due to users' unawareness of security protocols or the assumption of basic security standards in the



study's environment. Consequently, based on this study's findings, e-service providers may need to focus more on web design, such as enhancing usability, reliability, and efficiency while ensuring that security measures are in place but not necessarily highlighted as a primary selling point (Vatolkina et al., 2020). This finding offers a nuanced understanding of user priorities beyond security compared to related research.

Fulfilment, on the other hand, shines as a critical antecedent in enhancing e-service quality. The study revealed a significant positive relationship between meeting customer needs through efficient and timely fulfilment and their perception of overall service quality. In the context of Shopee, smooth delivery and order accuracy translate to happy customers and a boost in their perception of service quality. This aligns with the Means-End Chain theory, which emphasises the fundamental link between satisfying customer needs and positive consequences, including satisfaction with the service (Rita et al., 2019). This result is supported by previous studies of (Putra & Antonio, 2021), (Rita et al., 2019), and (Suryani et al., 2020). (Putra & Antonio's, 2021) study on antecedents of e-service quality of courier service applications finds that fulfilment becomes the strongest predictor of e-service quality among other variables such as Apps Design and Customer Service.

A direct, robust and positive relationship confirmed the expectancy disconfirmation theory. This theory posits that customer satisfaction stems from comparing their expectations and the perceived quality of the service received. This study is supported by previous studies by (Rita et al., 2019), (Sasono et al., 2021), and (Tran & Vu, 2019). When Shopee delivers a high-quality service that meets or exceeds customer expectations, it increases satisfaction. (Tran & Vu, 2019) also found a significant influence of e-service quality on Vietnamese online shopper customer satisfaction.

The positive influence of e-service quality extends beyond mere satisfaction, directly impacting customer loyalty on the Shopee platform. This finding aligns with the expectancy disconfirmation theory, suggesting that a positive customer experience driven by quality service fosters loyalty. Previous studies by (Rachbini et al., 2021) and (Sasono et al., 2021) support this result. Loyal customers on Shopee are more likely to return for future purchases and recommend the platform to others, solidifying its success in the e-commerce landscape.

The impact of customer satisfaction only exists partially; it plays a critical role in mediating the relationship between e-service quality and customer loyalty. The study revealed that e-service quality significantly influences customer loyalty, but this effect is amplified when customer satisfaction is a bridge between the two. This aligns with prior research and the expectancy disconfirmation theory, highlighting the importance of satisfaction as a critical factor in building and nurturing customer loyalty (Rahmawaty, 2021; Rita et al., 2019; Sasono et al., 2021). Satisfied customers on Shopee are likelier to become loyal brand advocates, contributing to the platform's long-term success.

CONCLUSION

This study offers valuable insights into the intricate web of factors influencing customer loyalty within the Shopee e-commerce platform. It validates and extends existing theories, providing a roadmap for Shopee and other e-commerce players to prioritise website design, efficient fulfilment, and quality service to cultivate a loyal customer base. By understanding the underlying mechanisms driving customer behaviour, Shopee can continue to thrive in the ever-evolving e-commerce landscape.



The research findings and hypothesis testing have led to several conclusions. Firstly, it was observed that website design (WD) significantly influences e-Service Quality (ESQ), affirming the positive impact of a well-designed website on service quality. In contrast, customer service (CS) had no significant effect on e-Service Quality (ESQ), indicating that Shopee's customer service does not play a vital role in shaping service quality.

Similarly, security (SC) was determined to have no significant influence on e-Service Quality (ESQ). This implies that the security measures implemented by Shopee are relatively low in terms of the overall quality of service. On the other hand, fulfilment (FU) was identified as having a significant positive impact on e-Service Quality (ESQ), highlighting the importance of efficient fulfilment processes in enhancing service quality.

The study revealed that e-service Quality (ESQ) significantly positively affects e-customer Satisfaction (ECS). This underscores the critical link between service quality and customer satisfaction in the context of Shopee's platform. Furthermore, e-service Quality (ESQ) significantly influenced e-customer Loyalty (ECL), challenging the notion that service quality has no bearing on customer loyalty.

In a related vein, e-Customer Satisfaction (ECS) was shown to have a significant positive impact on e-Customer Loyalty (ECL). This reinforces the idea that higher levels of customer satisfaction contribute to increased customer loyalty within the Shopee platform. Additionally, the study indicated that e-Service Quality (ESQ) significantly influences e-Customer Loyalty (ECL) when mediated by e-Customer Satisfaction (ECS), emphasising the interconnectedness of these factors in shaping customer loyalty.

After the research discussions, limitations, and conclusions, several recommendations emerge. For the company, it is advisable to educate customers about the range of services offered, facilitating direct interaction and quick responses. This is particularly crucial as the study identified a need for more customer understanding regarding the benefits and usage of features provided by Shopee.

Future research endeavours should consider conducting in-depth investigations into non-significant factors, particularly exploring why variables like Customer Service (CS) and Security (SC) did not exhibit statistical significance in their direct impact on e-Service Quality (ESQ). A more nuanced understanding of these relationships may emerge through a deeper exploration of the intricacies not captured in the current analysis.

Additionally, future research could benefit from cross-industry comparative studies to broaden the scope of the findings. Analysing whether the identified factors and their relationships hold across different sectors may lead to industry-specific recommendations for optimising electronic services. Future research could explore the influence of emerging technologies, such as artificial intelligence, blockchain, or augmented reality, on electronic service quality and its subsequent impact on customer satisfaction and loyalty. Investigating how cultural factors influence the relationships identified in this study could also be valuable. Research considering global consumer behaviour and preference variations may offer insights into tailoring electronic services to diverse cultural contexts.

REFERENCES

- Acquisti, A., Adjerid, I., Balebako, R., Brandimarte, L., Cranor, L. F., Komanduri, S., Leon, P. G., Sadeh, N., Schaub, F., Sleeper, M., Wang, Y., & Wilson, S. (2018). Nudges For Privacy And Security. *ACM Computing Surveys*, 50(3), 1–41.



<https://doi.org/10.1145/3054926>.

- Adwan, A. S. Al, Kokash, H., Adwan, A. Al, Alhorani, A., & Yaseen, H. (2020). Building Customer Loyalty In Online Shopping: The Role Of Online Trust, Online Satisfaction And Electronic Word Of Mouth. *International Journal of Electronic Marketing and Retailing*, 11(3), 278. <https://doi.org/10.1504/IJEMR.2020.108132>.
- Ahsan, K., & Rahman, S. (2022). A Systematic Review Of E-Tail Product Returns And An Agenda For Future Research. *Industrial Management & Data Systems*, 122(1), 137–166. <https://doi.org/10.1108/IMDS-05-2021-0312>.
- Ajzen, I. (1982). *On behaving by one's attitudes*. (3–15).
- Ajzen, I., & Fishbein, M. (1975). A Bayesian Analysis Of Attribution Processes. *Psychological Bulletin*, 82(2), 261–277. <https://doi.org/10.1037/h0076477>.
- AL-Hawary, S. I. S., & AL-Smeran, W. F. (2017). Impact Of Electronic Service Quality On Customer Satisfaction Of Islamic Banks In Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7(1). <https://doi.org/10.6007/IJARAFMS/v7-i1/2613>.
- Amegbe, H., Hanu, C., & Mensah, F. (2019). We Are Achieving Service Quality And Student Loyalty Through The Intimacy And Trust Of University Employees. A Test Case Of Kenyan Universities. *International Journal of Educational Management*, 33(2), 359–373.
- APJII. (2022). *APJII Di Indonesia Digital Outlook 2022*. APJII. <https://apjii.or.id/berita/d/apjii-di-indonesia-digital-outlook-2022> 857.
- Apuke, O. D. (2017). Quantitative Research Methods : A Synopsis Approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40–47. <https://doi.org/10.12816/0040336>.
- Arif, N. P., Lux, R., & Arif, Y. C. (2023). The Role Of Online Post-Sale Service Toward Repurchase Intention And Word Of Mouth. *Cakrawala Repositori IMWI*, 6(4), 1371–1387. <https://doi.org/https://doi.org/10.52851/cakrawala.v6i4.397>.
- Ashiq, R., & Hussain, A. (2023). Exploring The Effects Of E-Service Quality And E-Trust On Consumers' E-Satisfaction And E-Loyalty: Insights From Online Shoppers In Pakistan. *Journal of Electronic Business & Digital Economics*. <https://doi.org/10.1108/JEBDE-09-2023-0019>.
- Asiamah, N., Mensah, H., & Oteng-Abayie, E. F. (2017). General, Target, And Accessible Population: Demystifying The Concepts For Effective Sampling. *The Qualitative Report*. <https://doi.org/10.46743/2160-3715/2017.2674>.
- Baek, S. K., Nam, S.-H., & Chang, B.-H. (2017). Feedback Effect Of Brand Extension In Cable Networks Established By Parent Newspaper Brands: Applying Expectation Disconfirmation Theory. *Journal of Media Economics*, 30(4), 173–190. <https://doi.org/10.1080/08997764.2018.1515766>.
- Bloomfield, J., & Fisher, M. (2019). Quantitative Research Design. *Journal of the Australasian Rehabilitation Nurses' Association*, 22(2), 27–30. <https://doi.org/10.33235/jarna.22.2.27-30>.
- Blue, C. L. (1995). The Predictive Capacity Of The Theory Of Reasoned Action And The Theory Of Planned Behaviour In Exercise Research: An Integrated Literature Review. *Research in Nursing & Health*, 18(2), 105–121. <https://doi.org/10.1002/nur.4770180205>.
- Blut, M. (2016). E-Service Quality: Development Of A Hierarchical Model. *Journal of*



- Retailing*, 92(4), 500–517. <https://doi.org/10.1016/j.jretai.2016.09.002>.
- Bolo, S. J., Suryaputra, R., & Amelia, D. (2021). Analysis Of The Influence Of Fulfillment, Responsiveness, Website Design, And Privacy On Loyalty Through Trust And Satisfaction On Tokopedia Customers In Surabaya. *International Journal of Research Publications*, 69(1). <https://doi.org/10.47119/IJRP100691120211693>.
- Bray, G. A. (2024). Capturing Consumer Attention: An In-Depth Analysis Of Tiktok Live Shopping. *Law and Economy*, 3(1), 32–46. <https://doi.org/10.56397/LE.2024.01.04>.
- Chang, J.-H., & Wang, S.-H. (2019). Different Levels Of Destination Expectation: The Effects Of Online Advertising And Electronic Word-Of-Mouth. *Telematics and Informatics*, 36, 27–38. <https://doi.org/10.1016/j.tele.2018.11.004>.
- Chang, Y. P., & Li, J. (2022). Seamless Experience In The Context Of Omnichannel Shopping: Scale Development And Empirical Validation. *Journal of Retailing and Consumer Services*, 64, 102800. <https://doi.org/10.1016/j.jretconser.2021.102800>.
- Cheng, Y. E., Cheah, Y. Y., Jimenez, D. V. R., Chen, Y., & Chen, Y. (2024). The Linked Factor Of Customer Satisfaction And Loyalty In F& Industry: A Study Of Operational Performance Factor. *International Journal of Tourism & Hospitality in Asia Pacific*, 7(1), 31–44. <https://doi.org/10.32535/ijthap.v7i1.2167>.
- Collins, S., & Mostert, P. (2021). Loyalty And Word-Of-Mouth As Outcomes Of South African Airbnb Customers' Relationship Quality. *J. for Global Business Advancement*, 14(1), 24. <https://doi.org/10.1504/JGBA.2021.114317>.
- Damuri, Y. R., Aswicahyono, H., Hirawan, F., Setiati, I., & Simanjuntak, I. (2020). *Langkah Pemberdayaan Umkm Dalam Menghadapi Covid-19*. <http://www.jstor.org/stable/resrep26733>.
- Darboe, B. (2022). *Towards Excellent Customer Experience In E-Commerce Investigating The E-Commerce Journey From Customer Perspective* [Aalto University]. <https://aaltodoc.aalto.fi/bitstreams/68c333ca-6627-4740-b71f-dfe37799937d/download>.
- De Keyser, A., Köcher, S., Alkire (née Nasr), L., Verbeeck, C., & Kandampully, J. (2019). Frontline Service Technology Infusion: Conceptual Archetypes And Future Research Directions. *Journal of Service Management*, 30(1), 156–183. <https://doi.org/10.1108/JOSM-03-2018-0082>.
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021). Setting The Future Of Digital And Social Media Marketing Research: Perspectives And Research Propositions. *International Journal of Information Management*, 59, 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>.
- Felix, A., & Rembulan, G. D. (2023). Analysis Of Key Factors For Improved Customer Experience, Engagement, And Loyalty In The E-Commerce Industry In Indonesia. *Aptisi Transactions on Technopreneurship (ATT)*, 5(2sp), 196–208. <https://doi.org/10.34306/att.v5i2sp.350>.
- Franke, G., & Sarstedt, M. (2019). Heuristics Versus Statistics In Discriminant Validity Testing: A Comparison Of Four Procedures. *Internet Research*, 29(3), 430–447. <https://doi.org/10.1108/IntR-12-2017-0515>.
- Gupta, A., Singh, R. K., Mathiyazhagan, K., Suri, P. K., & Dwivedi, Y. K. (2023). Exploring Relationships Between Service Quality Dimensions And Customers Satisfaction: An



- Empirical Study In Context To Indian Logistics Service Providers. *The International Journal of Logistics Management*, 34(6), 1858–1889. <https://doi.org/10.1108/IJLM-02-2022-0084>.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2022). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Structural Equation Modeling: A Multidisciplinary Journal*. <https://doi.org/10.1080/10705511.2022.2108813>.
- Hanif, R., Astuti, W., & Sunardi, S. (2024). The Mediating Role Of Customer Satisfaction In The Effect Of Perceived Enjoyment On Customer Trust In Online Investment Applications. *Innovation Business Management and Accounting Journal*, 3(1), 18–29. <https://doi.org/https://doi.org/10.56070/ibmaj.2024.003>.
- Hansopaheluwakan, S. (2021). Analysis Of E-Service Quality And Website Quality Effect On E-Customer Loyalty Through E-Customer Satisfaction (Case Study: Tokopedia). *IOP Conference Series: Earth and Environmental Science*, 794(1), 012086. <https://doi.org/10.1088/1755-1315/794/1/012086>.
- Hassan, M. U., Iqbal, M. S., & Habibah, U. (2020). Self-Service Technology Service Quality: Building Loyalty And Intention Through Technology Trust In Pakistani Service Sector. *SAGE Open*, 10(2), 1–19. <https://doi.org/10.1177/2158244020924412>.
- Hayati, S., Suroso, A., Suliyanto, S., & Kaukab, M. E. (2020). Customer Satisfaction As A Mediation Between Micro Banking Image, Customer Relationship And Customer Loyalty. *Management Science Letters*, 2561–2570. <https://doi.org/10.5267/j.msl.2020.3.039>.
- Heydari, M., Lai, K. K., & Zhou, X. (2020). Creating Sustainable Order Fulfillment Processes Through Managing The Risk: Evidence From The Disposable Products Industry. *Sustainability*, 12(7), 2871. <https://doi.org/10.3390/su12072871>.
- Hossain, M. J. (2019). Redefining Expectancy Disconfirmation Theory Using LIS SERVQUAL + : An Integrated Framework for Evaluating Library Service Quality and User Satisfaction. *International Information & Library Review*, 51(3), 203–216. <https://doi.org/10.1080/10572317.2018.1496316>.
- Ighomereho, S. O., Ojo, A. A., Omoyele, S. O., & Olabode, S. O. (2022). *From Service Quality to E-Service Quality: Measurement, Dimensions and Model*. <https://doi.org/10.48550/arXiv.2205.00055>.
- Inandika, H. W. (2019). *The Impact Of Website Features On Customer Satisfaction In The E-Commerce Context In Indonesia* [University Of Twente]. http://essay.utwente.nl/79257/1/Inandika_MA_BMS.pdf.
- Juwaini, A., Chidir, G., Novitasari, D., Iskandar, J., Hutagalung, D., Pramono, T., Maulana, A., Safitri, K., Fahlevi, M., Sulisty, A. B., & Purwanto, A. (2022). The Role Of Customer E-Trust, Customer E-Service Quality And Customer E-Satisfaction On Customer E-Loyalty. *International Journal of Data and Network Science*, 6(2), 477–486. <https://doi.org/10.5267/j.ijdns.2021.12.006>.
- Kamranfar, S., Damirchi, F., Pourvaziri, M., Abdunabi Xalikovich, P., Mahmoudkelayeh, S., Moezzi, R., & Vadiee, A. (2023). A Partial Least Squares Structural Equation Modelling Analysis Of The Primary Barriers To Sustainable Construction In Iran. *Sustainability*, 15(18), 13762. <https://doi.org/10.3390/su151813762>.
- Kaur, H., & Soch, H. (2018). Satisfaction, Trust And Loyalty: Investigating The Mediating



- Effects Of Commitment, Switching Costs And Corporate Image. *Journal of Asia Business Studies*, 12(4), 361–380. <https://doi.org/10.1108/JABS-08-2015-0119>.
- Khatoon, S., Zhengliang, X., & Hussain, H. (2020). The Mediating Effect Of Customer Satisfaction On The Relationship Between Electronic Banking Service Quality And Customer Purchase Intention: Evidence From The Qatar Banking Sector. *SAGE Open*, 10(2), 215824402093588. <https://doi.org/10.1177/2158244020935887>.
- Kusnandar. (2021). *Pengguna Internet Indonesia Peringkat ke-3 Terbanyak di Asia*. <https://databoks.katadata.co.id/>.
- Leninkumar, V. (2017). The Relationship Between Customer Satisfaction And Customer Trust On Customer Loyalty. *International Journal of Academic Research in Business and Social Sciences*, 7(4). <https://doi.org/10.6007/IJARBS/v7-i4/2821>.
- Lidwina, A. (2021). *Penggunaan E-Commerce Indonesia Tertinggi Di Dunia*. Databoks Indonesia. <https://databoks.katadata.co.id/datapublish/2021/06/04/penggunaan-e-commerce-indonesia-tertinggi-di-dunia>.
- Lin, C., Wei, Y.-H., & Lekhawipat, W. (2018). Time Effect Of Disconfirmation On Online Shopping. *Behaviour & Information Technology*, 37(1), 87–101. <https://doi.org/10.1080/0144929X.2017.1406004>.
- Ma'rifah, A. (2019). *Analisis Means-End Chain Pada Pembelian Produk Restoran Cepat Saji*. Brawijaya University.
- Marcos, A. M. B. de F., & Coelho, A. F. de M. (2022). Service Quality, Customer Satisfaction And Customer Value: Holistic Determinants Of Loyalty And Word-Of-Mouth In Services. *The TQM Journal*, 34(5), 957–978. <https://doi.org/10.1108/TQM-10-2020-0236>.
- McLean, G., & Osei-Frimpong, K. (2017). Examining Satisfaction With The Experience During A Live Chat Service Encounter-Implications For Website Providers. *Computers in Human Behavior*, 76, 494–508. <https://doi.org/10.1016/j.chb.2017.08.005>.
- Meesala, A., & Paul, J. (2018). Service Quality, Consumer Satisfaction And Loyalty In Hospitals: Thinking For The Future. *Journal of Retailing and Consumer Services*, 40, 261–269. <https://doi.org/10.1016/j.jretconser.2016.10.011>.
- Miao, M., Jalees, T., Zaman, S. I., Khan, S., Hanif, N. ul A., & Javed, M. K. (2021). The Influence Of E-Customer Satisfaction, E-Trust And Perceived Value On Consumer's Repurchase Intention In The B2C E-Commerce Segment. *Asia Pacific Journal of Marketing and Logistics*, 34(10), 2184–2206. <https://doi.org/10.1108/APJML-03-2021-0221>.
- Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal Of Marketing*, 63, 33. <https://doi.org/10.2307/1252099>.
- Olson, J. C., & Reynolds, T. J. (1983). Understanding Consumers' Cognitive Structures: Implications For Advertising Strategy. *Advertising and Consumer Psychology*, 1, 77–90.
- Orsingher, C., Marzocchi, G. L., & Valentini, S. (2011). Consumer (Goal) Satisfaction: A Means-Ends Chain Approach. *Psychology & Marketing*, 28(7), 730–748. <https://doi.org/10.1002/mar.20409>.
- Pasaribu, L. N. (2023). The Influence Of E-Service Quality And Trust On E-Customer Loyalty Through Satisfaction For Users Of Grab Online Services In Medan City. *ProBisnis : Jurnal Manajemen*, 14(6), 806–819.



<https://doi.org/10.62398/probis.v14i6.433>.

- Putra, H. U., & Antonio, F. (2021). Antecedents Of E-Service Quality, Customer Satisfaction And Trust Which Affects Customer Intention. *Jurnal Mantik*, 5(36), 1104–1112. <https://doi.org/10.35335/jurnalmantik.Vol5.2021.1471.pp1104-1112>.
- Rachbini, W., Anggraeni, D., & Wulanjani, H. (2021). The Influence Of Electronic Service Quality And Electronic Word Of Mouth (eWOM) Toward Repurchase Intention (Study On E-Commerce In Indonesia). *Jurnal Komunikasi: Malaysian Journal of Communication*, 37(1), 42–58. <https://doi.org/10.17576/JKMJC-2021-3701-03>.
- Rahmawaty, S. (2021). *Pengaruh E-Service Quality Dan E-Trust Terhadap E-Customer Loyalty Melalui E-Customer Satisfaction Sebagai Variabel Intervening (Studi Pada Pengguna Gopay Di Kota Bandung)*. Telkom University.
- Rawung, T. P., Kindangen, P., & Tumewu, F. J. (2022). The Impact Of Web Design, Customer Service, Security, And Fulfillment Towards Customer Satisfaction Of Online Shoppers Platform (Case Study: Sam Ratulangi University Student). *Jurnal EMBA*, 10(4), 1070–1078. <https://doi.org/10.35794/emba.v10i4.43907>.
- Revilla-Camacho, M., Vega-Vázquez, M., & Cossío-Silva, F. (2017). Exploring The Customer's Intention To Switch Firms: The Role Of Customer-Related Antecedents. *Psychology & Marketing*, 34(11), 1039–1049. <https://doi.org/10.1002/mar.21043>.
- Rita, P., Oliveira, T., & Farisa, A. (2019). The Impact Of E-Service Quality And Customer Satisfaction On Customer Behaviour In Online Shopping. *Heliyon*, 5(10), e02690. <https://doi.org/10.1016/j.heliyon.2019.e02690>.
- San, W. H., Von, W. Y., & Muhammad Imran Qureshi. (2020). The Impact Of E-Service Quality On Customer Satisfaction In Malaysia. *Journal of Marketing and Information Systems*, 3(1), 46–62. <https://doi.org/10.31580/jmis.v3i1.1452>.
- Sasono, I., Jubaedi, A. D., Novitasari, D., Wiyono, N., Riyanto, R., Oktabrianto, O., Jainuri, J., & Waruwu, H. (2021). The Impact Of E-Service Quality And Satisfaction On Customer Loyalty: Empirical Evidence From Internet Banking Users In Indonesia. *Journal of Asian Finance, Economics and Business*, 8(4), 465–473. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0465>.
- Sathiyavany, N., & Shivany, S. (2018). E-Banking Service Qualities, E-Customer Satisfaction, And E-Loyalty: A Conceptual Model. *International Journal of Social Sciences and Humanities Invention*, 5(6), 4808–4819. <https://doi.org/10.18535/ijsshi/v5i6.08>.
- Shafiee, M. M., & Bazargan, N. A. (2018). Behavioral Customer Loyalty In Online Shopping: The Role Of E-Service Quality And E-Recovery. *Journal of Theoretical and Applied Electronic Commerce Research*, 13(1), 26–38. <https://doi.org/10.4067/S0718-18762018000100103>.
- Shared, H. A. (2019). The Relationship Between E-Service Quality And E-Customer Satisfaction: An Empirical Study In Egyptian Banks. *International Journal of Business and Management*, 14(5), 171. <https://doi.org/10.5539/ijbm.v14n5p171>.
- Souza, A. C. de, Alexandre, N. M. C., Guirardello, E. de B., Souza, A. C. de, Alexandre, N. M. C., & Guirardello, E. de B. (2017). Psychometric Properties In Instruments Evaluation Of Reliability And Validity. *Epidemiologia e Serviços de Saúde*, 26(3), 649–659. <https://doi.org/10.5123/S1679-49742017000300022>.
- Subrahmanyam, A. (2017). Relationship Between Service Quality, Satisfaction, Motivation And Loyalty. *Quality Assurance in Education*, 25(2), 171–188.



<https://doi.org/10.1108/QAE-04-2013-0016>.

- Sumrit, D., & Sowijit, K. (2023). Winning Customer Satisfaction Toward Omnichannel Logistics Service Quality Based On Integrated Importance-Performance Analysis And Three-Factor Theory: Insight From Thailand. *Asia Pacific Management Review*, 28(4), 531–543. <https://doi.org/10.1016/j.apmr.2023.03.003>.
- Surahman, S. (2023). The Influence Of Service Quality, Innovation, And Customer Satisfaction On User Compliance (Literature Review). *Dinasti International Journal Of Digital Business Management*, 4(4), 817–824. <https://doi.org/https://doi.org/10.31933/dijdbm.v4i4.1915>.
- Suryani, T., Fauzi, A. A., & Nurhadi, M. (2020). The Determinant Of Website Quality And E-Service Quality At Sme In Indonesia. *Jurnal Manajemen Dan Kewirausahaan*, 22(2), 131–141. <https://doi.org/10.9744/jmk.22.2.131-141>.
- Susanto, H., Fang Yie, L., Mohiddin, F., Rahman Setiawan, A. A., Haghi, P. K., & Setiana, D. (2021). Revealing Social Media Phenomenon In Time Of COVID-19 Pandemic For Boosting Start-Up Businesses Through Digital Ecosystem. *Applied System Innovation*, 4(1), 6. <https://doi.org/10.3390/asi4010006>.
- Tabaeian, R. A., Mohammad Shafiee, M., & Ansari, A. (2023). Developing A Scale For Gamified E-Service Quality In The E-Retailing Industry. *International Journal of Retail & Distribution Management*, 51(4), 444–464. <https://doi.org/10.1108/IJRDM-06-2022-0181>.
- THET, P. (2022). *Effect Of E-Service Quality On Satisfaction And Customer Loyalty Of Online Organic Product Shoppers In Myanmar* [Yangon University Of Economics]. <https://meral.edu.mm/records/8354>.
- Tran, V.-D., & Vu, Q. H. (2019). Inspecting The Relationship Among E-Service Quality, E-Trust, E-Customer Satisfaction And Behavioural Intentions Of Online Shopping Customers. *GLOBAL BUSINESS & FINANCE REVIEW*, 24(3), 29–42. <https://doi.org/10.17549/gbfr.2019.24.3.29>.
- Tsai, S. (2017). E-Loyalty Is Driven By Website Quality: The Case Of Destination Marketing Organisation Websites. *Journal of Organizational Computing and Electronic Commerce*, 27(3), 262–279. <https://doi.org/10.1080/10919392.2017.1331674>.
- Tseng, H.-T., Nadeem, W., Hajli, M. S., Featherman, M., & Hajli, N. (2023). Understanding Consumers' Interest In Social Commerce: The Role Of Privacy, Trust And Security. *Information Technology & People*. <https://doi.org/10.1108/ITP-05-2020-0322>.
- Tyagi, V., & Dhingra, V. (2021). Return Policy Of E-Retailers: An Extensive Review. *Journal of Contemporary Issues in Business and Government*, 27(02). <https://doi.org/10.47750/cibg.2021.27.02.144>.
- Uzir, M. U. H., Al Halbusi, H., Thurasamy, R., Thiam Hock, R. L., Aljaberi, M. A., Hasan, N., & Hamid, M. (2021). The Effects Of Service Quality, Perceived Value And Trust In-Home Delivery Service Personnel On Customer Satisfaction: Evidence From A Developing Country. *Journal of Retailing and Consumer Services*, 63, 102721. <https://doi.org/10.1016/j.jretconser.2021.102721>.
- Van Ryzin, G. G. (2004). Expectations, Performance, And Citizen Satisfaction With Urban Services. *Journal of Policy Analysis and Management*, 23(3), 433–448. <https://doi.org/10.1002/pam.20020>.
- Vatolkina, N., Gorbashko, E., Kamynina, N., & Fedotkina, O. (2020). E-Service Quality



- From Attributes To Outcomes: The Similarity And Difference Between Digital And Hybrid Services. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 143. <https://doi.org/10.3390/joitmc6040143>.
- Yang, H., Zhang, Y., Chen, K., & Li, J. (2023). The Double-Edged Sword Of Delivery Guarantee In E-Commerce. *Decision Support Systems*, 175, 114042. <https://doi.org/10.1016/j.dss.2023.114042>.
- Zebardast, L., & Radaei, M. (2022). The Influence Of Global Crises On Reshaping Pro-Environmental Behaviour, Case Study: The COVID-19 Pandemic. *Science of the Total Environment*, 811, 151436. <https://doi.org/10.1016/j.scitotenv.2021.151436>.
- Zeithaml, V. A. (1988). Consumer Perceptions Of Price, Quality, And Value: A Means-End Model And Synthesis Of Evidence Evidence. *Journal of Marketing*, 52, 2–22. <https://doi.org/10.1182/blood.v62.5.1047.1047>.
- Zhou, R., Wang, X., Shi, Y., Zhang, R., Zhang, L., & Guo, H. (2019). Measuring E-Service Quality And Its Importance To Customer Satisfaction And Loyalty: An Empirical Study In A Telecom Setting. *Electronic Commerce Research*, 19(3), 477–499. <https://doi.org/10.1007/s10660-018-9301-3>.

ACKNOWLEDGEMENTS

We gratefully acknowledge the invaluable contributions of all co-authors, whose intellectual insight and collaborative spirit were instrumental in bringing this research to fruition. Furthermore, we sincerely thank the respondents who participated in this study. Their willingness to share their time and experiences played a crucial role in the success of our research. We are also indebted to Brawijaya University for providing the resources and infrastructure necessary to conduct this research. The university's unwavering support allowed us to pursue this inquiry with confidence and depth.

