E-Satisfaction as a Mediator Between E-Service Quality, E-Trust, and E-Loyalty

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ABSTRACT

The rapid growth of online commerce has dramatically altered consumer behavior, highlighting the crucial role of high-quality digital services and customer trust in establishing lasting customer loyalty. Nevertheless, the mediating effect of e-satisfaction on the relationship between e-service quality, e-trust, and e-loyalty still requires deeper exploration. **The current research aims to** analyze the mediating role of e-satisfaction in the relationship between e-service quality and e-trust toward e-loyalty among consumers engaging in online shopping activities in the Greater Bandung region. **The study collected data from** 302 respondents through an online survey conducted using Google Forms, distributed via WhatsApp and Instagram. **The research employed Partial Least Squares** Structural Equation Modeling (PLS-SEM) to test the seven formulated hypotheses. **Findings indicate that e-service quality** significantly affects e-satisfaction, while e-trust also exhibits a direct positive effect on e-satisfaction. Additionally, both e-service quality and e-trust positively contribute to e-loyalty, with e-satisfaction playing a significant role in enhancing e-loyalty. The study further identifies e-satisfaction as a mediator between e-service quality and e-loyalty but not between e-trust and e-loyalty. **These results underline** the importance of high-quality service and trust in driving customer retention within online business environments. Consequently, online business platforms are encouraged to focus on enhancing user experiences by delivering secure, efficient, and superior quality services to foster stronger customer connections and promote enduring loyalty.

1. INTRODUCTION

In the past few years, the widespread adoption of e-commerce has been driven by advancements in information technology [1]. This digital marketplace enables the online exchange of goods and services, removing the necessity for face-to-face interactions and offering consumers the flexibility to shop anytime and from any location. E-commerce platforms leverage technologies such as online shopping carts, secure payment systems, and efficient logistics, while also offering customer review features that serve as valuable business performance indicators. These reviews help businesses understand consumer sentiment and formulate better strategies [2]. As a result, e-commerce has transformed not only how people shop but also how businesses approach customer engagement and service delivery [3].

The rise of mobile internet and the increasing accessibility of smartphones have further accelerated the growth of e-commerce, making online shopping even more accessible to a broader population. Furthermore, innovations such as personalized shopping experiences, targeted advertising, and advanced recommendation algorithms have enhanced customer satisfaction and retention. These technological advancements have significantly reshaped global consumer behavior, driving businesses to adapt and innovate continually.

As shown in Figure 1, the number of e-commerce users in Indonesia is projected to continue growing, reaching 189.6 million by 2024. The number of users was 70.8 million in 2017 and has consistently increased annually. In 2018, the number of users was approximately 87.5 million, and by 2020, it had grown to 129.9 million. The trend is expected to persist, with projections of 148.9 million users in 2021, 166.1 million in 2022, 180.6 million in 2023, and finally, 189.6 million in 2024. This surge is not just a reflection of technological adoption but also of changing consumer attitudes towards digital shopping platforms, which have become a dominant feature of modern retail landscapes.
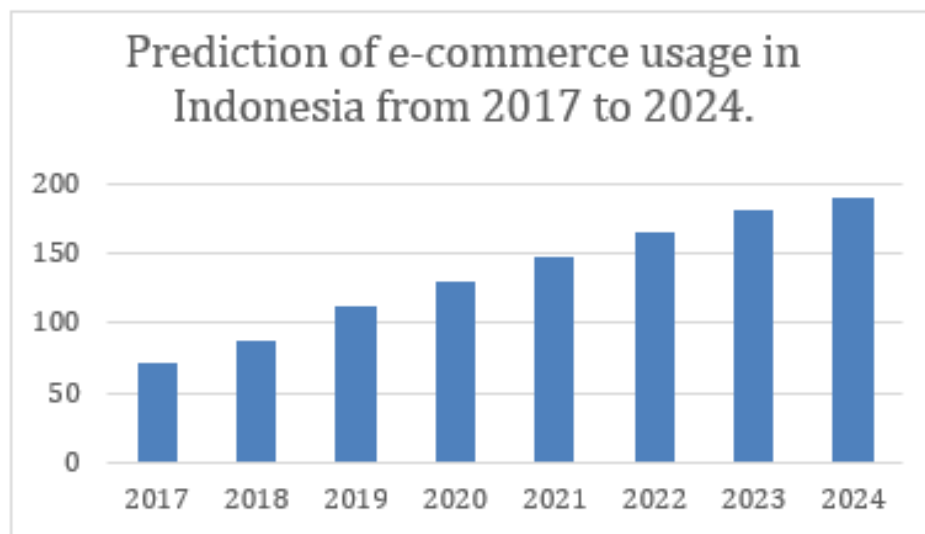

Figure 1. Projected E-commerce Usage in Indonesia (2017-2024)

The rapid growth of online shoppers is prompting various industries to enter the digital marketplace [4]. In developing countries like Pakistan, e-commerce is expanding quickly but faces challenges in building consumer trust, especially around concerns of security and privacy [5]. A similar scenario is observed in Indonesia, where concerns over data security hinder the full adoption of e-commerce despite its increasing usage. This highlights the essential role of service quality and trust in building and maintaining customer loyalty [6].

Ensuring excellent service quality is a crucial factor in achieving long-term competitive advantage [7]. Service quality (SQ) significantly influences how customers perceive the value derived from the services they receive [8]. Achieving customer satisfaction is possible through experiences with products or services, particularly by providing honest and reliable product information [9].

However, trust often referred to as e-trust remains a significant challenge in e-commerce. E-trust helps mitigate consumer uncertainty and enhances their confidence in the products offered [10]. Sellers can foster e-trust by providing detailed, transparent, and clear product information, which reassures customers about the credibility of the online platform. Alongside e-trust, e-service quality must be optimized to ensure that customers feel valued, leading to the creation of e-loyalty, This is a vital factor in the success of e-commerce businesses. E-loyalty represents a consumer's commitment to repeatedly using a platform and recommending it to others [11]. Strengthening customer loyalty enhances the probability of long-term customer retention [12].

Previous research has explored the influence of e-service quality and e-trust across multiple sectors, such as e-banking [13], e-learning [14], and food services [15]. Findings from these studies suggest that while e-service quality and e-trust contribute to e-satisfaction, their direct impact on e-loyalty remains ambiguous. Some studies indicate that e-service quality alone does not necessarily lead to e-loyalty, and the roles of e-satisfaction and e-trust in fostering e-loyalty often yield inconclusive results. Further research is

necessary to determine how these factors can best contribute to e-satisfaction and e-loyalty, ensuring that both e-commerce websites and apps meet customer expectations. The combination of excellent e-service quality, strong e-trust, customer satisfaction, and high e-loyalty is the foundation of success in the increasingly competitive e-commerce market.

2.   LITERATURE REVIEW

E-commerce has recently become a major research focus [16]. The rapid internet expansion has opened new business opportunities and transformed global shopping habits, with more consumers preferring online platforms over traditional stores [17]. E-commerce facilitates buying and selling goods and services online [18], aligning with consumer trends favoring the convenience of shopping from home [19].

Both brick-and-mortar and online retailers invest significant resources in enhancing service quality. Previous studies highlight a significant relationship between the quality of electronic services, electronic satisfaction, and long-term sustainability [20]. Customers' assessments and judgments regarding the quality of electronic services significantly influence business profitability, customer retention, and behavioral intentions [21]. Enhanced electronic service quality has a direct association with increased customer retention, as better service experiences lead to greater satisfaction [22]. The level of customer satisfaction is predominantly influenced by the quality of service delivered by a company [23]. In service marketing, service quality is recognized as a key factor influencing customer satisfaction and subsequent consumer behavior [24].

H1: e-service quality influences e-satisfaction.

Trust is a fundamental element in building strong relationships between businesses and consumers [25]. It is characterized by the anticipation of a favorable outcome based on the expected conduct of the involved parties [26]. Within the e-commerce domain, this concept is often termed e-trust, where credibility serves as a key component. [27], which influences customers' long-term commitment by reducing perceived risks associated with the company. Trust helps reduce uncertainty, making consumers feel more secure, knowing that a trusted organization is reliable. Trust also impacts commitment, which is essential for a successful business relationship [28].

Once trust is established between consumers and organizations, customers are assured that the features and benefits promised by the business will meet or exceed their expectations [29]. When consumers trust an online retailer, this trust fosters the perception that the retailer will deliver satisfactory service quality [30]. Elements such as ease of use, data security, and efficient problem resolution are key aspects of e-trust that enhance customer satisfaction, or e-satisfaction, in online stores [31].

H2: e-trust influences e-satisfaction.

Customer satisfaction is critical because it leads to numerous benefits for businesses, including increased loyalty and retention. Furthermore, satisfied customers frequently participate in positive word-of-mouth promotion, playing a vital role in the expansion of online businesses [32]. There is a strong interconnection between service quality, company image, and customer loyalty. Superior service quality significantly influences customer loyalty [33].

H3: E-service quality influences e-loyalty.

One of the major challenges for e-commerce providers is gaining and maintaining customer trust and loyalty, particularly in developing countries where e-commerce is still in its growth phase [34]. Trust has been recognized as a key factor in shaping customer loyalty, with previous research highlighting a strong correlation between brand authenticity, trust, and brand loyalty [26].

H4: E-trust influences e-loyalty.

Customer satisfaction has long been a fundamental topic in both academic research and business practices [35]. In the e-commerce sector, it stands as a critical determinant of success. Factors such as timely delivery and efficient product handling play a crucial role in enhancing customer satisfaction [36]. Numerous studies have highlighted that businesses capable of meeting customer expectations can not only retain existing customers but also attract new ones [37]. The pivotal role of customer satisfaction in influencing business outcomes is well-documented, as it directly impacts overall performance and profitability [38].

E-loyalty has been widely recognized in marketing literature as a result of e-satisfaction. It has been established that e-loyalty is significantly shaped by customers' e-satisfaction with their online shopping experiences. Satisfaction is key to securing future loyalty from customers, as shown in a study within the banking industry in Bangladesh, where satisfaction was found to be crucial for long-term customer loyalty.

H5: E-satisfaction influences e-loyalty.

In the virtual world, consumer loyalty is more complex than in traditional markets, as online shoppers often make purchasing decisions based on limited information. Loyalty can be seen as a determinant of consumer behavior that ensures long-term, sustainable purchases. It is also directly tied to increased profitability for businesses, making it a crucial strategy for long-term success. Loyalty is not merely a passing trend; it signifies a fundamental change in how consumers evaluate and engage with brands. Therefore, businesses need to align their practices with these evolving consumer values to foster and maintain loyalty [39].

Previous research has indicated that customer satisfaction plays a mediating role in the relationship between service quality and customer loyalty. For instance, higher e-service quality enhances e-satisfaction, which subsequently encourages repeat purchases. The link between e-satisfaction and e-loyalty emerges from customers' increasing expectations of service quality in their online shopping experiences. The effect of e-service quality on e-loyalty can fluctuate depending on the level of customer satisfaction. When customers are pleased with the service, their loyalty is reinforced; however, dissatisfaction may weaken the connection between service quality and loyalty. Accordingly, the following hypothesis is proposed.

H6: E-service quality influences e-loyalty through e-satisfaction.

Customers who have trust in a business and are satisfied with its services are more likely to develop loyalty. The relationship between e-satisfaction and e-loyalty is influenced by rising customer expectations regarding e-trust and the extent to which e-service quality aligns with their online shopping experience. While both e-satisfaction and e-trust play crucial roles in shaping e-loyalty, research suggests that the effect of e-trust on loyalty is often indirect, with e-satisfaction acting as a mediating factor [40].

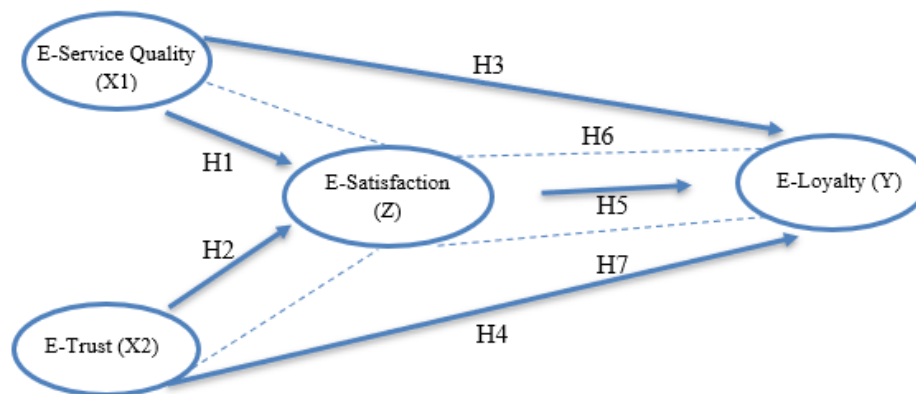**H7: E-trust influences e-loyalty through e-satisfaction.**

Figure 2. Outer Model Testing PLS-SEM

Figure 2 presents the results of the outer model assessment using PLS-SEM. This model provides a visual representation of the relationships among e-service quality, e-trust, e-satisfaction, and e-loyalty, with each path coefficient and its corresponding significance level clearly indicated [41]. Evaluating the outer model is essential for determining the reliability and validity of the measurement model, which serves as the foundation for analyzing the structural relationships in this study.

3. RESEARCH METHOD

This study utilized a quantitative approach with a Google Forms questionnaire to test the hypotheses. It measured e-service quality (SQ), e-trust (TR), e-satisfaction (ST), and e-loyalty (LY) using a Likert scale (1–5) [42]. Targeting e-commerce users in Bandung, the survey was distributed via WhatsApp and Instagram, collecting 302 responses, exceeding the minimum sample size of 210.

Reliability and validity were assessed through outer model testing. Factor loadings (≥ 0.7) and AVE (≥ 0.5) ensured convergent validity, while discriminant validity used the Fornell-Larcker criterion. Reliability was confirmed with Cronbach's Alpha and Composite Reliability (≥ 0.7). Inner model evaluation examined relationships between X1, X2 (independent), Z (mediator), and Y (dependent). Predictive power was analyzed using R^2 (strong: ≥ 0.75, moderate: ≥ 0.50, weak: ≥ 0.25), and path significance was tested via bootstrapping in SmartPLS ($t \geq 1.96$, $p < 0.05$). Stone-Geisser's $Q^2 > 0$ indicated predictive relevance.

Table 1. Definition of Variables in Research Context

Variable	Indicator	Source
E-Service Quality (X1):	Indicates the degree to which online services fulfill or surpass consumer expectations.	[43]
Reliability	1. Online shopping platforms offer helpful and trustworthy information.	[44] [45]
	2. Information provided by online shopping platforms is neatly arranged, precise, and regularly updated.	
	3. Online shopping platforms offer comprehensive details about products and services such as pricing, thorough descriptions, and clear guidelines on ordering and returns.	
Responsiveness	4. I can engage with online shopping platforms to access personalized information suited to my particular needs.	[46] [47] [48]
	5. Online shopping platforms demonstrate readiness and willingness to address customer needs promptly.	
	6. When encountering issues, online shopping platforms display sincere interest in finding solutions.	
Security	7. I feel safe when submitting my personal details during online transactions.	[49] [50]
	8. I believe that online shopping platforms safeguard my privacy effectively.	
	9. I feel secure when carrying out transactions through online shopping platforms.	
Convenience	10. Online shopping platforms simplify the process for me to locate items that I require.	[51] [52] [53]
	11. Online shopping platforms are accessible at all times, allowing shopping from any location.	
	12. Conducting transactions on online shopping platforms is fast and effortless.	
E-Trust (X2):	The level of trust consumers have in online shopping platforms.	[54]
	13. I trust that online shopping platforms will not misuse my personal data.	
	14. I feel confident placing my trust in online shopping platforms.	
	15. I have strong confidence in online shopping platforms.	
E-Satisfaction (Z):	Refers to customer evaluation after using online services, based on their experiences with convenience, site design, and service quality.	[55]
	16. I trust that my decision to shop on an online shopping platform will lead to satisfaction.	
	17. I am pleased with my choice of shopping through online shopping platforms.	
	18. My overall shopping experience on online platforms is highly satisfying.	
E-Loyalty (Y):	Describes the willingness of customers to continue using a particular platform and not switch to competitors.	[44, 45, 53] [49, 50]
	19. I regularly make repeat purchases on online shopping platforms.	
	20. I would recommend online shopping platforms to others who seek my advice.	
	21. I share positive feedback about online shopping platforms with others.	

Table 1 presents the operational definitions of the variables used in this study, along with the indicators that were measured. These indicators were adapted from existing literature to guarantee data reliability and validity. The table illustrates the primary constructs e-service quality, e-trust, e-satisfaction, and e-loyalty together with their corresponding indicators, assessed through a Likert scale, and references indicating their origins.

4. RESULTS AND DISCUSSION
4.1. Results

This study received responses from 302 participants, with 100% of respondents meeting the criteria, including their willingness to fill out the questionnaire voluntarily, prior experience with e-commerce, and residence in the Greater Bandung area. All respondents were individuals who had previously engaged in transactions through e-commerce platforms, ensuring that the data reflects insights from actual users. The respondents' diverse background, including various age groups, occupations, and spending patterns, allows for a comprehensive understanding of e-commerce usage within this region. The respondent characteristics are outlined in Table 2.

Table 2. Respondent Demographics

Description	Number of Respondents	Percentage
Gender	Male	149 (49.3%)
	Female	153 (50.7%)
Age	≤ 20 years	17 (5.6%)
	21–30 years	124 (41.1%)
	31–40 years	44 (14.6%)
	41–50 years	98 (32.5%)
	51–60 years	14 (4.6%)
	≥ 61 years	5 (1.7%)
Expenditure	< Rp 1,000,000	101 (33.4%)
	Rp 1,000,001–Rp 3,000,000	150 (49.7%)
	Rp 3,000,001–Rp 5,000,000	0 (0%)
	Rp 5,000,001–Rp 7,000,000	8 (2.6%)
	Rp 7,000,001–Rp 9,000,000	6 (2%)
	> Rp 9,000,000	37 (12.3%)
Occupation	Student	17 (5.6%)
	University Student	124 (41.1%)
	Civil Servant	18 (6%)
	Private Employee	60 (19.9%)
	Entrepreneur	34 (11.3%)
	Freelance	20 (6.6%)
	Housewife	18 (6%)
	Retired	11 (3.6%)

Table 2 presents the demographic profile of the study's respondents. The sample consisted of 50.7% female and 49.3% male participants. The predominant age group was 21–30 years (41.1%), followed by 31–40 years (14.6%). Smaller proportions were observed in other age categories, with 5.6% aged 20 years or younger, 32.5% between 41–50 years, 4.6% in the 51–60 years range, and 1.7% aged 61 years or older. In terms of monthly expenditures, nearly half of the respondents (49.7%) reported spending between Rp 1,000,001–Rp 3,000,000. The distribution of expenditures varied, with 12.3% spending above Rp 9,000,000, 2.6% between Rp 5,000,001–Rp 7,000,000, and 2% in the Rp 7,000,001–Rp 9,000,000 range. Interestingly, no respondents reported expenditures between Rp 3,000,001–Rp 5,000,000.

The majority of respondents were university students, making up 41.1% of the sample, reflecting the significant role of younger, tech-savvy individuals in e-commerce. This group is often the most active in online shopping, leveraging digital platforms for convenience and accessibility. Private employees, who accounted for 19.9%, represent individuals who commonly engage in e-commerce for both personal and professional purposes, contributing valuable insights into the behaviors of employed consumers. Entrepreneurs, comprising 11.3% of the sample, are also an essential group, as they often participate in both business-to-consumer (B2C) and business-to-business (B2B) transactions.

Smaller groups included civil servants (6%), freelancers (6.6%), housewives (6%), and retirees (3.6%). These groups add diversity to the sample, ensuring that the study captures a wide array of e-commerce user behaviors. Civil servants and retirees, though fewer in number, offer insights into more traditional or less technology-driven sectors, while freelancers and housewives bring perspectives shaped by flexible work hours

or household responsibilities. The broad occupational representation ensures the study's findings are more robust and applicable to a wider range of e-commerce users in the Greater Bandung area.

Table 3. Convergent Validity and Reliability Test Results

Variable	Item	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
E-Service Quality	REL 1	0.863	0.705	0.966	0.962
	REL 2	0.825			
	REL 3	0.852			
	RES 1	0.825			
	RES 2	0.842			
	RES 3	0.842			
	SC 1	0.829			
	SC 2	0.834			
	SC 3	0.856			
	CV 1	0.840			
	CV 2	0.821			
	CV 3	0.845			
E-Trust	TR 1	0.884	0.775	0.912	0.854
	TR 2	0.874			
	TR 3	0.882			
E-Satisfaction	ST 1	0.881	0.780	0.914	0.859
	ST 2	0.893			
	ST 3	0.876			
E-Loyalty	LY 1	0.864	0.764	0.907	0.846
	LY 2	0.882			
	LY 3	0.877			

Table 3 shows convergent validity and reliability results, with all indicators meeting criteria (loadings > 0.7, AVE > 0.5, Cronbach's Alpha/Composite Reliability > 0.7). Table 4 confirms discriminant validity, showing distinct constructs with AVE roots exceeding inter-construct correlations.

Table 4. Discriminant Validity Test (Fornell-Larcker Criterion)

	E-Loyalty (Y)	E-Satisfaction (Z)	E-Service Quality (X1)	E-Trust (X2)
E-Loyalty (Y)	0.874			
E-Satisfaction (Z)	0.616	0.883		
E-Service Quality (X1)	0.660	0.685	0.840	
E-Trust (X2)	0.597	0.627	0.635	0.880

Table 4 shows the discriminant validity test results using the Fornell-Larcker criterion. The square root of the AVE for each construct is greater than its correlations with other constructs, confirming each construct's distinctiveness. This reduces overlap and improves the model's accuracy in representing variable relationships. The clear differentiation among constructs strengthens the theoretical framework and boosts the model's predictive power, ensuring each construct uniquely contributes to understanding the studied phenomenon and supports the study's validity and practical relevance.

Table 5. Goodness of Fit Test

	Saturated Model	Estimated Model
SRMR	0.039	0.039
d_ULS	0.350	0.350
d_G	0.224	0.224
Chi-square	530.281	530.281
NFI	0.922	0.922

Table 5 summarizes the goodness of fit test results. The SRMR (0.039), Chi-square (530.281), and

NFI (0.922) values indicate a good fit, suggesting that the model is well-specified. The SRMR value, well below 0.08, shows minimal residuals, confirming the model's accuracy. The Chi-square and NFI values further indicate that the model fits the data well, ensuring that the hypothesized relationships are appropriately represented. These results validate the model as a reliable representation of the data, making it suitable for further analysis.

Table 6. Bootstrapping Hypothesis Testing

Hypothesis	Causal Direction	Original Sample (O)	Standard Deviation (STDEV)	T-Statistics (—O/STDEV—)	P-values	R-square
H1	SQ → ST	0.481	0.085	5.645	0.000	0.531
H2	TR → ST	0.321	0.084	3.842	0.000	
H3	SQ → LY	0.362	0.112	3.222	0.001	0.513
H4	TR → LY	0.224	0.089	2.530	0.011	
H5	ST → LY	0.228	0.094	2.433	0.015	
H6	SQ → ST → LY	0.109	0.049	2.218	0.027	
H7	TR → ST → LY	0.073	0.042	1.763	0.078	

Table 6 summarizes the bootstrapping analysis results, indicating significant impacts of e-service quality (SQ) and e-trust (TR) on both e-satisfaction (ST) and e-loyalty (LY). Specifically, e-service quality directly influences e-satisfaction (0.481) and e-loyalty (0.362), while e-trust shows relatively smaller effects on these variables (0.321 and 0.224, respectively). Additionally, e-satisfaction positively affects e-loyalty (0.228) and mediates the relationship between e-service quality and e-loyalty (0.109), whereas the indirect impact of e-trust on e-loyalty is not significant. The obtained R-squared values of 0.531 for e-satisfaction and 0.513 for e-loyalty demonstrate moderate predictive accuracy, further supported by positive Q-squared values confirming the model's predictive relevance.
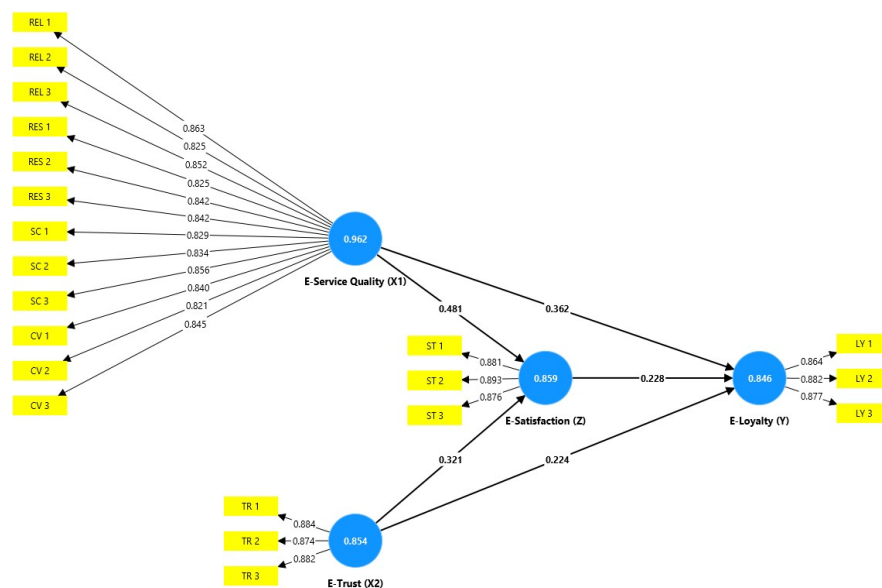

Figure 3. Inner Model Testing PLS-SEM

Figure 3 displays the inner model testing results from the bootstrapping procedure. The figure visually represents the relationships between the constructs, with path coefficients that indicate the strength and direction of the effects. The direct effects of e-service quality and e-trust on e-satisfaction and e-loyalty, as well as the indirect effect of e-service quality on e-loyalty through e-satisfaction, are clearly depicted. This visual representation helps to understand the model's structure and the interdependencies between the variables.

4.2. Discussion

H1 is accepted, This suggests that e-service quality positively affects e-satisfaction, confirming that responsive, reliable, and easily accessible electronic services significantly enhance customer satisfaction enhances customer satisfaction. Therefore, digital service providers should prioritize features that facilitate smooth and efficient transactions for users.

H2 is also accepted, as e-trust was found to significantly influence e-satisfaction. High trust, driven by security assurances, data privacy, and consistent service, leads to higher customer satisfaction. The more customers trust the platform, the more satisfied they are with their experience.

H3 is accepted, showing that e-service quality affects e-loyalty. Satisfied consumers are more likely to remain committed to a platform, emphasizing the importance of investing in robust digital infrastructures to provide optimal customer experiences.

H4 is accepted, confirming that e-trust significantly impacts e-loyalty. Trust in a platform makes customers feel secure and comfortable, fostering long-term loyalty despite the availability of other market alternatives.

H5 is accepted, aligning with prior evidence that e-satisfaction significantly impacts e-loyalty. Customers satisfied with their online experiences tend to stay loyal, recommend the platform to others, and overlook minor issues. This underscores the importance for businesses to consistently enhance customer satisfaction as a strategy for building enduring customer loyalty.

H6 is accepted, emphasizing that e-service quality indirectly influences e-loyalty via e-satisfaction. High-quality electronic services lead to greater customer satisfaction, which subsequently fosters stronger loyalty. The mediating function of e-satisfaction is thus essential to ensure that high service quality effectively translates into increased customer loyalty.

H7 is rejected, indicating that e-trust does not indirectly influence e-loyalty through e-satisfaction. This outcome suggests the presence of other influencing variables, such as user experience or competitive pricing strategies. Additional studies are required to identify and analyze these factors, providing a more comprehensive understanding of the complex interactions among trust, satisfaction, and customer loyalty.

5.   MANAGERIAL IMPLICATIONS

5.1. Enhancing E-Service Quality to Drive Satisfaction and Loyalty

The findings of this study confirm that e-service quality plays a vital role in shaping both e-satisfaction and e-loyalty. Therefore, managers of e-commerce platforms must prioritize investments in the reliability, responsiveness, security, and convenience of their digital services. For instance, ensuring timely responses to customer inquiries, maintaining accurate and up-to-date product information, and offering seamless transaction processes will not only enhance user experience but also boost satisfaction. These elements, once consistently implemented, can significantly reduce churn rates and encourage repeat purchases. Managers are encouraged to adopt continuous service improvement programs and conduct regular user experience (UX) testing to identify pain points and optimize digital touchpoints.

5.2. Building Consumer Trust Through Transparency and Data Protection

Trust is another essential driver of customer satisfaction and loyalty. This study underscores the importance of building e-trust through transparent communication, robust privacy policies, and secure transaction mechanisms. E-commerce managers must ensure that their platforms clearly communicate data usage policies and implement visible security certifications (e.g., SSL, third-party verifications). Regular audits and user education campaigns about privacy rights can further reinforce trust. Since e-trust does not significantly lead to loyalty via satisfaction alone, companies must combine trust-building with value-added services and customer-centric strategies to enhance loyalty outcomes more effectively.

5.3. Leveraging Customer Satisfaction as a Strategic Loyalty Driver

E-satisfaction was found to mediate the relationship between e-service quality and e-loyalty, suggesting that satisfied customers are more inclined to remain loyal and engage in positive word-of-mouth. For managers, this highlights the strategic value of measuring satisfaction not just as an outcome but as a key performance indicator (KPI) that drives loyalty. Regular collection of customer feedback through surveys, reviews, and net promoter scores (NPS) should be institutionalized. Insights derived from these tools can be translated

into actionable service improvements. Additionally, personalizing customer interactions and tailoring offers based on satisfaction trends can further deepen emotional engagement with the brand.

5.4. Strategic Focus on Loyalty Programs and Customer Retention

As e-loyalty remains a critical goal for long-term business sustainability, organizations must design loyalty programs that go beyond transactional benefits. This research emphasizes that loyalty is a multifaceted construct influenced by both perceived service quality and trust. Hence, managers should develop retention strategies that integrate rewards, personalization, and community-building initiatives. For instance, exclusive access to premium content, tiered membership benefits, and community forums can increase user stickiness. Such initiatives not only strengthen loyalty but also differentiate the platform in a highly competitive digital landscape.

6. CONCLUSION

Based on the results of data analysis and hypothesis testing, several important insights emerged. First, the quality of electronic services significantly influences e-satisfaction and e-loyalty, where aspects such as reliability, security, convenience, and responsiveness substantially shape customers' favorable perceptions toward online shopping platforms. Moreover, e-trust is found to have a meaningful impact on both e-satisfaction and e-loyalty, as it represents the extent to which consumers believe their privacy and personal information are safeguarded by online platforms, consequently increasing their willingness to remain loyal users. Additionally, e-satisfaction effectively mediates the relationship between e-service quality and e-loyalty, indicating that customers who have positive experiences with online shopping tend to exhibit stronger platform loyalty.

Nevertheless, the mediation effect of e-satisfaction on the relationship between e-trust and e-loyalty was not significant. This implies that although trust is a critical factor in maintaining customer retention, it alone might not adequately ensure long-term customer commitment. The result underscores the complexity of consumer behaviors in digital commerce, suggesting that trust should be complemented with additional factors to effectively enhance customer loyalty. Consequently, e-commerce businesses must develop comprehensive strategies combining trust-building initiatives and continuous service improvements to cultivate sustainable customer loyalty.

Despite its contributions, this study has some limitations. Its generalized approach does not focus on specific industry sectors, which may reduce its applicability to niche markets. Additionally, the use of purposive sampling could introduce bias, limiting the generalizability of the findings to a broader e-commerce user base. Since the study employed a quantitative method, it does not explore deeper insights into customer experiences and perspectives. Future research could benefit from case studies on specific companies, sector-based analysis, or a mixed-method approach (quantitative and qualitative) to gain richer, more detailed insights. Conducting in-depth interviews or direct engagement with respondents could help minimize bias and improve the robustness of future studies.

7. DECLARATIONS

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Conceptualization: JF; Methodology: AA; Software: AA; Validation: JF and AA; Formal Analysis: AA; Investigation: JF; Resources: AA; Data Curation: AA; Writing Original Draft Preparation: AA; Writing Review and Editing: JF and AA; Visualization: AA; All authors, JF and AA, have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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