The Effect Of User Experience And E-Service Quality On Shopee User Satisfaction In Indonesia.

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Abstract
The expansion of e-commerce in Indonesia has intensified competition, especially for Shopee as a dominant platform. This research examines the influence of User Experience and E-Service Quality on Shopee user satisfaction in Indonesia. A quantitative method was applied, collecting data from 400 active Shopee users via questionnaires. The data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The findings reveal that dimensions of User Experience such as attractiveness, clarity, reliability, stimulation, and novelty significantly impact E-Service Quality. Moreover, E-Service Quality, including efficiency, system availability, fulfillment, and privacy, affects user satisfaction. This research provides insights for e-commerce platforms on optimizing service quality to enhance customer loyalty.

Keywords: *User Experience, E-Service Quality, User Satisfaction, Shopee, E-Commerce.*

I. INTRODUCTION

The rapid evolution of digital technology has led to significant changes in consumer shopping behavior worldwide, including in Indonesia. As an emerging market with high internet penetration, Indonesia has witnessed an unprecedented shift toward online shopping, facilitated by various e-commerce platforms. Shopee has emerged as one of the most popular platforms, offering a diverse range of products and services to millions of users. However, as the industry grows, Shopee faces increasing challenges in maintaining user satisfaction, improving service quality, and ensuring a seamless shopping experience. Consumers are becoming more discerning, seeking not only competitive pricing but also superior user experience and efficient service quality. E-commerce platforms in Indonesia must address multiple factors that influence consumer preferences, including ease of use, transaction security, product availability, and efficient service delivery. One of the most crucial aspects of e-commerce success is User Experience (UX), which determines how consumers interact with and perceive an online platform. A well-optimized UX, characterized by intuitive design, efficient navigation, and responsive interfaces, fosters customer engagement and retention. Additionally, E-Service Quality (ESQ) is another key determinant of consumer satisfaction. ESQ encompasses aspects such as system efficiency, reliability, and privacy protection. Given the rise in online fraud and cybersecurity concerns, consumers are now more cautious about the platforms they engage with. Therefore, a seamless and secure transaction process is essential to fostering trust and loyalty. Despite the importance of these factors, consumer expectations continue to evolve, requiring continuous improvements in both UX and ESQ. Previous research has explored the impact of UX and ESQ on consumer satisfaction in various industries. However, studies specifically addressing Shopee's influence within the Indonesian market remain limited. This study aims to fill that gap by examining the relationship between UX, ESQ, and user satisfaction in Shopee. By understanding these dynamics, Shopee and other e-commerce platforms can develop targeted strategies to enhance service quality and user experience, ultimately improving customer satisfaction and long-term retention. This research contributes to a broader discussion on optimizing digital commerce experiences and ensuring that e-commerce companies remain competitive in an increasingly digital marketplace.

II. LITERATURE REVIEW

A. Marketing

According to Kotler and Keller (2016), Marketing encompasses comprehensive activities involving a set of institutions and processes designed to create, communicate, deliver, and exchange offerings that have value for customers, clients, partners, and society at large. By effectively meeting these needs, businesses not only capture value from customers in return but also contribute to creating a sustainable ecosystem of trust and collaboration (Amira & Syahputra, 2020). According to Ariyanti and Umbara (2015) Marketing is an organization function and a set process for creating communication, deliviring value to customers and for managing customer relationships in ways that benefit the organization and its stakeholder.

B. E-Commerce

According to Widodo and Avania (2023) E-commere is an arena for transactions or information exchange between sellers and buyers in cyberspace. Electronic commerce (e-commerce) is a transformative approach to business that involves the buying and selling of products, services, or information via the Internet, as described by Solihat and Sandika (2022). By facilitating interactions between sellers and buyers online, e-commerce significantly reduces operational costs, making it an efficient and scalable business model. Accodrding to Girsang et al. (2020) E- Commerce is the use of the internet, the web, mobile apps and browsers on mobile devices for business and transaction. This allows commercial transaction to be carried out digitally between ogranizations or between ogranizations and individuals.

C. User Experience

According to Martins et al. (2020), the ideal user experience is one that can meet the user's needs smoothly, without disrupting other activities. The principles of simplicity and attractiveness also play an important role, because they create products that are not only easy to use but also fun. Kusuma et al. (2019), added that the best user experience is one that meets the user's needs precisely and without interruption, encouraging users to stay engaged and even feel enthusiastic.

D. E-Service Quality

According to Ulum and Muchtar (2018) e-service quality or electronic service quality is a measure used to assess customer satisfaction with internet-based services. This service quality covers the entire customer experience, from the purchasing process to the delivery of products or services, and measures how well service providers can meet customer expectations in a digital environment.

E. User Satisfaction

According to Kotler and Keller (2016), satisfaction is a person's feeling of pleasure or disappointment that arises from comparing the perceived performance (or results) of a product with expectations. If it meets expectations, consumers are satisfied. If it exceeds expectations, consumers are satisfied or happy.

F. Framework

The framework of this study is based on a model developed by Mamakou et al. (2024), which integrates User Experience and E-Service Quality to analyze customer satisfaction in the context of e-commerce. User Experience consists of six main dimensions, namely attractiveness, clarity, efficiency, dependability, stimulation, and novelty, which shape user perceptions of the platform. E-Service Quality includes dimensions of efficiency, system availability, fulfillment, and privacy, which influence users' views on service reliability and security.

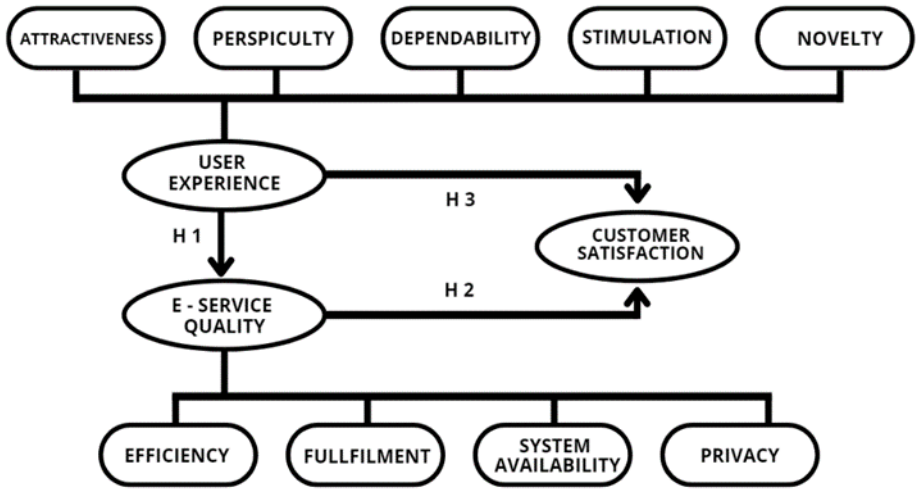

Figure 2.1 Framework
Source: Mamakou et al, (2024)

This is in line with the view of Kotler and Keller (2016), which states that customer satisfaction is not only influenced by product quality, but also by the overall brand experience, including service quality and user interaction. This model also tests the effect of E-Service Quality on Customer Satisfaction and its role as a mediator between User Experience and Customer Satisfaction. Using the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method.

III. METHOD

A. Population dan Sample

This study employs a quantitative approach using a survey-based method to examine the relationship between User Experience, E-Service Quality, and Shopee user satisfaction. The research sample was selected using a non-probability purposive sampling technique, as the total population of Shopee users in Indonesia is unknown. A total of 400 respondents were chosen based on the Cochran formula, ensuring a representative sample with a 95% confidence level and a 5% margin of error.

B. Data Source

This study collected both primary and secondary data through literature studies and field data collection. The literature review gathered secondary data to formulate theories and strengthen the research hypothesis. Primary data were obtained by distributing an online questionnaire designed based on research variables using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Data collection was conducted from January 30, 2025, to February 25, 2025, by distributing the questionnaire via Google Form through various social media platforms, including Instagram, WhatsApp, Line, and Facebook, yielding a total of 438 respondents.

C. Data Analytics Tecnique

The collected data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) through SmartPLS 4.0. The analysis process included multiple stages. Firstly, descriptive statistical analysis was conducted to summarize respondent demographics, such as age, gender, and shopping behavior. Next, reliability and validity tests were performed using Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) to confirm measurement consistency and construct validity.

The outer model evaluation examined indicator reliability, convergent validity, and discriminant validity to ensure that each research variable was accurately measured. Subsequently, the inner model evaluation assessed the structural relationships between UX, ESQ, and user satisfaction, using path coefficients, R-square values, and predictive relevance (Q-square) to determine model fit. Hypothesis testing was carried out using bootstrapping techniques, which involved analyzing t-values and p-values to establish the significance of direct and indirect effects among research variables.

By employing these rigorous statistical techniques, this study provides a comprehensive understanding of how UX and ESQ influence Shopee user satisfaction in Indonesia. The findings contribute valuable insights for e-commerce businesses aiming to enhance user engagement and improve digital service quality.

A. Measurement Model (Outer Model)

The Outer Model analysis was used to assess the reliability and validity of the measurement model, ensuring that the constructs accurately measure the intended variables. Convergent validity was tested using factor loadings, where indicators with a loading factor above 0.7 were retained. Composite Reliability (CR) and Cronbach's Alpha values were also analyzed to confirm internal consistency, with acceptable thresholds above 0.7. Furthermore, Average Variance Extracted (AVE) was used to evaluate the degree to which each latent variable explains the variance of its indicators, ensuring values above 0.5

B. Structural Model (Inner Model)

Inner Model analysis tests the structural relationship between User Experience, E-Service Quality, and User Satisfaction. This is done using path coefficient analysis and R-square (R^2) values to determine the predictive power of independent variables. The bootstrapping technique is applied to test the significance of the path coefficient, with the R Square test results showing that E-Service

Quality has a value of 0.947, indicating a very strong prediction, while Customer Satisfaction reaches 0.847, also indicating a high prediction. A small difference with the Adjusted R Square indicates an efficient model without overfitting. The F-Square test results show that user experience has a significant influence on e-service quality (17.742) and has a greater influence on customer satisfaction (0.118) than e-service quality (0.041). This finding confirms the important role of user experience in improving service perception and customer satisfaction. The Q^2 test results show that the model has high predictive ability (E-Service Quality: 0.947, Customer Satisfaction: 0.842). This finding confirms the significant influence of user experience and service quality on customer satisfaction, supporting the research hypothesis.

C. Hyphothesis Test

The T-test, or Direct Effect analysis, is used to assess whether the relationship between variables is statistically significant by evaluating the direct influence of one variable on another. In a one-tailed test, the direction of the relationship is predetermined, determining whether an independent variable has either a positive or negative impact on a dependent variable. A relationship is considered significant if the calculated t-value exceeds the t-table value and the p-value is below 0.05, confirming that the hypothesis is accepted, and the variables are significantly related. On the other hand, if the t-value is lower than the t-table value and the p-value is greater than 0.05, the hypothesis is rejected, indicating no significant influence between the variables. This method is applied to test the hypotheses in research: H1 asserts that user experience enhances e-service quality, H2 suggests that e-service quality improves customer satisfaction, H3 states that user experience positively influences customer satisfaction, and H4 investigates whether e-service quality serves as a mediator between user experience and customer satisfaction.

IV. RESULTS AND DISCUSSIONS

A. Respondent Characteristics

The respondent characteristics in this study were examined based on multiple demographic factors. In terms of gender, among the 438 respondents, women constituted the majority (62.79%), while men made up 37.21%, indicating greater female participation in the survey. Regarding age distribution, the largest group was between 18-24 years old (41.55%), followed by those aged 25-29 years (34.25%), highlighting that most respondents were from the younger and productive age group. Based on domicile, the highest number of participants came from West Java (42.92%), followed by DKI Jakarta (16.44%) and Central Java (12.56%), suggesting that this study was particularly relevant to respondents in these regions. Concerning occupation, the majority were employees (45.89%), followed by students (37.90%) and entrepreneurs (11.64%), reflecting a diverse professional background. In terms of e-commerce platform preferences, Shopee was the most used platform (23.74%), with many respondents also utilizing a combination of platforms such as TikTok Shop and Tokopedia, indicating flexible shopping behaviors. Lastly, regarding online shopping frequency, most respondents made purchases 1-3 times per month (56.6%), while a notable percentage (31.9%) shopped at least once a week, demonstrating a regular engagement in e-commerce activities.

B. Descriptive Results

This study utilizes descriptive analysis to evaluate responses from 438 participants across 47 statement items related to three key variables, using frequency distribution tables to categorize responses and determine overall scores. The User Experience dimension received an average rating of 85.57% (Very Good), covering aspects such as Attitude, Perceived Ease of Use, Dependability, Stimulation, and Novelty, with most indicators classified as "Very Good" and a few in the "Good" category. Similarly, Service Quality achieved an average score of 85.49% (Very Good), with Efficiency, System Availability, Fulfillment, and Privacy dimensions reflecting strong performance, reliable service, and effective privacy protection. Meanwhile, Customer Satisfaction was rated at 86.56% (Very Good), indicating a high level of satisfaction among respondents, with all indicators receiving strong positive ratings. Overall, the findings suggest that the evaluated service or product delivers an excellent user experience, high service quality, and strong customer satisfaction, effectively meeting consumer expectations and needs.

C. Outer Model Test

The SEM-PLS test analysis in this study examines the research model's structural relationships and measurement validity using SmartPLS 4. The Outer Model Test evaluates the reliability and validity of indicators measuring the latent variables—User Experience, Service Quality, and Customer Satisfaction—through loading factor, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). The loading factor results show that most indicators exceed the 0.7 threshold, confirming strong correlations with their respective constructs, though some items in User Experience require further evaluation. Cronbach's Alpha values indicate high reliability across all constructs (User Experience: 0.969, Service Quality: 0.967, Customer Satisfaction: 0.815), signifying strong internal consistency. Similarly, Composite Reliability (rho_and rho_c) values exceed 0.7, confirming stable and consistent construct measurement. The AVE scores demonstrate that all constructs meet the minimum threshold (User Experience: 0.605, Service Quality: 0.588, Customer Satisfaction: 0.730), ensuring adequate convergent validity. These findings validate the measurement model's robustness, confirming that the research model reliably explains the relationships between variables.

D. Inner Model Test

The SEM-PLS test analysis involves several statistical assessments to evaluate the model's reliability, validity, and predictive strength. The R-Square test results demonstrate strong predictive power, with Service Quality (0.947) and Customer Satisfaction (0.847) indicating that a high percentage of variance in these variables is explained by the independent variables. The F-Square test shows that User Experience has a significant impact on Service Quality ($F^2 = 17.742$), while its effect on Customer Satisfaction is smaller but still meaningful ($F^2 = 0.118$). However, Service Quality has only a minor and non-significant effect on Customer Satisfaction ($F^2 = 0.041$). The Q^2 predictive relevance test results confirm the model's high predictive ability, with E-Service Quality at 0.947 and Customer Satisfaction at 0.842, both exceeding 0, proving its reliability and highlighting the significant impact of user experience and E-Service Quality on customer satisfaction, thereby emphasizing the crucial role of enhancing these factors in improving customer satisfaction, particularly in e-commerce platforms like Shopee.

E. Hypothesis Test

Tabel 4.1 Hypothesis Result

Hypothesis	Variable	Path Coefficient	Total Effects	T Statistic	P Value	Annotation
H1	User Experience→Service Quality	0.973	0.973	1.883	0.030	H1 is proven
H2	Service Quality→Customer Satisfaction	0.076	0.343	1.050	0.147	H2 is proven
H3	User Experience→Customer Satisfaction	0.583	0.917	1.395	0.081	H3 is proven

Source: Processed by Author (2025)

The hypothesis testing results provide insights into the relationships between User Experience (UE), Service Quality (SQ), and Customer Satisfaction (CS). H1 is supported, as the results indicate that User Experience has a positive and significant effect on Service Quality, with a path coefficient of 0.973 and a p-value of 0.030 (<0.05), leading to the rejection of H0. However, H2 is not supported, as the effect of Service Quality on Customer Satisfaction is not significant, with a path coefficient of 0.076 and a p-value of 0.147 (>0.05), resulting in the acceptance of H0. Similarly, H3 is also not supported, as User Experience does not have a significant effect on Customer Satisfaction, with a path coefficient of 0.583 and a p-value of 0.081 (>0.05). These findings suggest that while User Experience strongly influences Service Quality, neither Service Quality nor User Experience significantly impacts Customer Satisfaction within the research model.

Table 4.2 Hypothesis Result with Mediation

Hypothesis	Variabel	Indirect Effect	Direct		95% Path Coefficient		Annotation

			Effect	Total Effect	Confidence Interval		P Value	
					Lower Bound	Upper Bond		
H4	User Experience→ Service Quality→ Customer Satisfaction	0.334	0.583	0.973	3.219	0.161	0.500	H4 is proven

Source: Processed by Author (2025)

The results of hypothesis testing indicate that User Experience (UE) has a positive and significant effect on Customer Satisfaction (CS) through Service Quality (SQ), confirming H4. The indirect effect is 0.334, while the direct effect is 0.583, with a p-value of 0.001 (<0.05), leading to the rejection of H0. This means that although User Experience does not directly impact Customer Satisfaction significantly, its effect becomes significant when mediated through Service Quality. These findings highlight the crucial role of Service Quality as a mediator, reinforcing that improving User Experience enhances Service Quality, which in turn positively influences Customer Satisfaction.

F. Discussion

The study's findings highlight the relationships between User Experience (UE), Service Quality (SQ), and Customer Satisfaction (CS). Descriptive analysis shows that User Experience is rated "Very Good" (86.16% - 88.68%), with the Attractiveness dimension scoring the highest, while Stimulation scored the lowest, indicating potential areas for improvement in user engagement. Service Quality also received a "Very Good" rating (85.57%), with Efficiency being the strongest dimension, while System Availability scored lower, suggesting system stability issues. Customer Satisfaction was similarly classified as "Very Good" (86.56%), with experienced users reporting higher satisfaction. Hypothesis testing confirmed that User Experience significantly impacts Service Quality (H1 accepted, path coefficient = 0.973, p = 0.030), reinforcing the importance of an intuitive UI/UX. However, Service Quality did not significantly affect Customer Satisfaction (H2 accepted, path coefficient = 0.076, p = 0.147), suggesting that other factors, such as promotions and pricing, play a more dominant role. Similarly, User Experience did not have a direct significant impact on Customer Satisfaction (H3 accepted, path coefficient = 0.583, p = 0.081), though improvements in user interaction could enhance customer satisfaction. Importantly, Service Quality was found to mediate the relationship between User Experience and Customer Satisfaction (H4 accepted, path coefficient = 0.334, p = 0.001), confirming its role in bridging user experience with customer satisfaction. These findings emphasize that while a strong User Experience enhances Service Quality, translating it into higher Customer Satisfaction requires strategic improvements in service reliability, engagement features, and personalized offerings.

V. CONCLUSIONS DAN SUGGESTIONS

A. Conclusions

The study confirms that User Experience (UX) has a significant impact on e-Service Quality (ESQ), as a well-designed UX comprising Attractiveness, Perspicuity, Dependability, Stimulation, and Novelty enhances users' perception of Shopee's service quality. A visually appealing, user-friendly, and reliable platform fosters trust and improves the overall shopping experience. However, while e-Service Quality (ESQ) positively influences User Satisfaction (US), its effect is not

statistically significant, indicating that factors such as pricing strategies, promotional offers, and customer support may have a stronger influence on overall satisfaction. Likewise, User Experience (UX) has a positive but insignificant effect on User Satisfaction (US), suggesting that while an engaging interface enhances usability, customers may prioritize affordability, product variety, and problem resolution over UX elements. A crucial finding is that e-Service Quality (ESQ) mediates the relationship between UX and User Satisfaction (US), meaning that a well-structured UX strengthens perceptions of service quality, which in turn enhances satisfaction. However, a strong UX alone is not enough Shopee must complement it with efficient services, secure transactions, and responsive customer support to maximize customer satisfaction.

B. Suggentions

1. Suggentions For The Company

This study highlights the importance of enhancing User Experience (UX), particularly in stimulation, to improve user engagement and satisfaction. Stimulation refers to how interactive and enjoyable an e-commerce platform is, keeping users engaged and encouraging continuous shopping. While Shopee already offers features like Shopee Live, Shopee Games, and flash sales, further improvements could make the platform more immersive and emotionally appealing. Incorporating AI-driven personalized recommendations based on browsing and purchase history, integrating augmented reality (AR) for virtual try-ons in fashion and home décor, and gamifying loyalty programs with achievement-based rewards could enhance engagement. Additionally, real-time interactive live-stream shopping, social shopping features that allow users to share recommendations and wish lists, and optimized push notifications with personalized shopping challenges and exclusive deals can further boost user interaction. By strengthening the stimulation aspect of UX, Shopee can increase customer satisfaction, improve retention, and drive repeat purchases, ultimately differentiating itself from competitors and fostering long-term customer loyalty.

2. SUGGESTIONS FOR FURTHER RESEARCH

Future research should delve deeper into the impact of stimulation on user engagement and purchasing behavior in e-commerce platforms. While this study primarily focused on User Experience (UX), e-Service Quality (ESQ), and User Satisfaction (US), future studies could specifically examine how stimulation influences impulse buying, brand loyalty, and long-term user retention. Utilizing a qualitative or mixed-method approach could provide deeper insights into users' emotional responses to interactive features and identify which elements drive sustained engagement. Additionally, research could explore the role of emerging technologies such as virtual reality (VR), augmented reality (AR), and AI-driven personalization in enhancing the stimulation aspect of UX, helping businesses optimize digital shopping experiences. Another valuable area of study would be the influence of demographic factors such as age, cultural background, and shopping habits on users' preferences for gamification, interactive content, and real-time engagement features, enabling e-commerce platforms to refine their strategies accordingly. Furthermore, investigating the long-term effects of stimulation-focused UX improvements on key business metrics like customer retention, purchase frequency, and session duration could provide insights into how engagement-driven strategies impact revenue growth. By prioritizing stimulation as a crucial UX element, future research can help e-commerce platforms develop more immersive, engaging, and user-friendly shopping experiences, ultimately driving higher customer satisfaction, brand loyalty, and competitive market positioning.

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