

# Analysis of Factors Affecting Customer Satisfaction in Online Marketplace: Service Quality, Platform Usability and Transaction Security

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**Abstract**—Due to rapid advancement of technology, business people and society are starting to adapt to the modernization process in transactions and doing business. Meanwhile, competition for online shopping platforms is getting higher, therefore service quality, platform usability and transaction security are vital factors in winning the market. The existence of a fast response, friendly service, and effective resolution of consumer problems or complaints can support online shopping activities, where platform usability and transaction security are supporting factors in achieving customer satisfaction. This study uses purposive sampling technique with a total sample of 100 students who has been using marketplace platform, Shopee. In this study, interview and questionnaire were used as data collection methods which were then analyzed by using multiple linear regression techniques and processed through SPSS program. Research has shown that high service quality can increase user perceptions of platform usability and transaction security. In addition, high ease of platform usability also contributes to user confidence in transaction security. Overall, positive interactions between the three constructs provide a positive experience to users, which in turn can increase user satisfaction and online business sustainability.

**Keywords**— Customer Satisfaction; Service Quality; Platform Usability; Transaction Security.

## I. INTRODUCTION

Technological advances in years have had a major impact on developments in the fields of communications, business applications, financial technology (fintech) and e-commerce. Where online shopping is a current trend in the digital era, many business people use technology to promote and market their products with an online buying and selling system. This technological development can provide very broad access for consumers to access a variety of the latest information related to marketplace. The change in consumer behavior in doing online shopping has provided opportunities as well as business challenges. Businesses must adapt to this trend by providing a good online shopping experience, easy platform access, and transaction security to build consumer trust. The ease of internet access, limited time and efficiency as well as wider product offerings have brought changes in customer perceptions of shopping and transacting digitally.

Shopee is a growing e-commerce in Indonesia or a consumer-to-consumer (C2C) based marketplace which is known as a user friendly, practical and safe to use for digital

transactions. A high performance of platform usability as well as competitive service quality have been driving this marketplace to capture Indonesian market in all circles of society. Service quality is the existing control and responsibility for a service and has high stability in fulfilling the wishes and expectations of its consumers[4], so that it becomes something consumers can remember about service. Students as millennial generation are also designated as the largest users of e-commerce in Indonesia. The problems in service quality that has been occurred were: some services are not match with product description, limited use of free shipping vouchers, slow delivery, ad slow refund system.

Customer satisfaction is a feeling of pleasure or disappointment which arise after comparing customer expectation to customer perception[2]. Platform usability has a good influence on customer perceived usefulness, which a real platform usability can increase customer satisfaction[9]. According to Listiani and Wulandari (2023) transaction security is able to distance oneself from cyber-crime, such as detecting fraud in an information-based system[6]. Besides, satisfaction is a response which arises after considering product or service performance according to their expectations[1]. Irawan (2009:37-39) argued that to measure satisfaction, there are five triggers, namely convenience, service performance, quality of goods, price, and emotional factors[3]. Vasic (2019) revealed an important factor that can create customer satisfaction is through online transaction security[15].

## II. LITERATURE REVIEW

Miao et al., (2022) stated the notion of consumer satisfaction as a consumer's feelings in assessing the difference between customer expectations and customer perceived value: disappointment happend if product performance does not meet expectations, and otherwise [7].

While several studies have established a positive relationship between service quality and customer satisfaction, higher service quality leads to increased customer loyalty, positive word-of-mouth, and repeat purchases[14]. Ramya et al. (2019) claimed that service quality refers to customers' perceptions of the overall excellence or superiority of a service[12]. It encompasses various dimensions such as reliability, responsiveness, assurance, empathy, and tangibles.

In the context of online platforms, several studies have examined the impact of service quality on user satisfaction and loyalty. For example, Parasuraman et al. (1988) developed the SERVQUAL model, which has been widely used to measure service quality across different industries[11]. Additionally, studies have emphasized the importance of personalized and timely customer support, efficient complaint resolution, and accurate information provision to enhance service quality[8].

According to Pal and Vanijja (2020) platform usability refers to the ease with which users can interact with online platforms[10]. It encompasses factors such as website design, navigation, search functionality, responsiveness, and accessibility. Usability significantly impacts user experience and satisfaction. Studies have found that a user-friendly platform enhances engagement, reduces frustration, and increases user loyalty. Besides, transaction security is vital to establish trust between platform providers and customers[5]. Users expect their personal information and payment details to be protected from unauthorized access and fraudulent activities. Researchers have explored various security measures, including encryption, secure sockets layer (SSL) certificates, two-factor authentication, and fraud detection systems. The implementation of these measures contributes to building customer trust. Several studies have examined the relationship between transaction security, user perceptions, and trust. Findings suggest that users' perceived security positively influences their trust in the platform and willingness to engage in transactions.

III. METHODS OF RESEARCH

This research was conducted at Warmadewa University in Denpasar, as the millennial generation with the largest users of e-commerce with the population of 10,516 active students and 100 respondents are taken as a research sample. This research was identified by using purposive sampling technique with certain criteria[13] then analyzed by using multiple linear regression techniques. The hypothesis in this study was tested by using a simultaneous test (F-test) and partial test (t-test) to determine the effect between variables. There is a classic assumption test used in this study, namely normality test, heteroscedasticity test, and multicollinearity test. Sampling criteria are used to specify this study, namely:

1. Student who has been actively using Shopee application,
2. Student who has made at least 5 times transaction by using Shopee application

IV. RESULTS AND DISCUSSION

The result of validity and reliability tests indicate that the questionnaire instrument proposed in this study is valid and reliable. testing the relationship in the classic assumption test, namely: data normality test, multicollinearity, heterodasticity which shows that the entire questionnaire instrument has fulfilled several criteria for hypothesis testing through regression. the following is a summary of the results of the regression hypothesis testing:

TABLE 1. The Coefficient of determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.961 <sup>a</sup>	.923	.917	.94602

a. Predictors: (Constant), Platform Usability, Transaction Security, Emphaty, Responsiveness, Assurance, Reliability, Tangible.

Source: Data Processed

The result of the correlation value is 0.961 which can be interpreted that the relationship between variables X1-X7 and variable Y can be categorized as very strong. From the table it is also obtained that the coefficient of determination (R square) is 0.923, which means that the influence of variables X1-X7 on variable Y is 92.3%, while the remaining 7.7% is influenced by other variables outside the study.

TABLE 2. Simultaneous Test

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
		1	Regression	990.174	7	141.453
	Residual	82.336	92	.895		
	Total	1.072.510	99			

a. Predictors: (Constant), Platform Usability, Transaction Security, Emphaty, Responsiveness, Assurance, Reliability, Tangible.

b. Dependent Variable: Customer Satisfaction

Source: Data Processed

Based on ANOVA table, it can be seen that the value of Sig. = 0.000. If 0.000 < 0.05, it can be concluded that there is an influence jointly on the independent variable on the dependent variable.

TABLE 3. UJI T

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.513	.741		.693	.490
	Platform Usability	.174	.079	.119	2.218	.029
	Transaction Security	.198	.076	.185	2.598	.011
	Tangible	.238	.112	.136	2.126	.036
	Reliability	.263	.114	.112	2.314	.023
	Responsiveness	.212	.103	.096	2.054	.043
	Assurance	.276	.133	.108	2.077	.041
	Emphaty	.649	.106	.331	6.126	.000

a. Dependent Variable: Customer Satisfaction

Source: Data Processed

This test is used to test the significance of each regression coefficient so that it is known whether there is a partial effect between Platform Usability, Transaction Security, and Service Quality (Tangible, Reliability, Responsiveness, Assurance, and Empathy) on Customer Satisfaction is real (significant) or a coincidence.

V. CONCLUSION

Based on the research, there is a significant influence between Platform usability, Transaction Security and Service Quality variables on customer satisfaction. Which means the

better the Platform usability, Transaction Security and Service Quality, the consumer satisfaction will increase. Service quality, platform ease of use, and transaction security are closely related in the context of online business. Research has shown that high service quality can increase user perceptions of platform usability as well as transaction security. In addition, platform usability also contributes to user confidence in transaction security. Overall, positive interactions between the three constructs provide a positive experience to users, which in turn can increase user satisfaction and online business sustainability.

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