

THE INFLUENCE OF MOBILE MARKETING, E-SERVICE QUALITY, AND COST ON CUSTOMER SATISFACTION AMONG DANA APPLICATION USERS

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Abstract

This study aims to analyze the influence of mobile marketing, e-service quality, and cost on customer satisfaction among DANA application users, specifically students of the Faculty of Economics and Business at Malikussaleh University. A quantitative method was used through a survey of 114 respondents. Multiple linear regression analysis revealed that all three independent variables have a positive and significant effect on customer satisfaction. Mobile marketing and cost have the strongest influence, followed by e-service quality. These findings suggest that enhancing mobile marketing strategies, service quality, and cost efficiency can improve customer satisfaction with the DANA application. The results provide valuable insights for DANA managers to improve digital service quality.

Keywords: *Mobile Marketing, E-Service Quality, Cost, Customer Satisfaction, DANA Application.*

INTRODUCTION

The rapid advancement of technology in the digital era has transformed various aspects of human life, including the financial sector. One of the most notable developments is the emergence of financial technology (fintech), particularly digital wallets or e-wallets, which enable users to perform transactions quickly and easily via mobile devices (Gunawan et al., 2021; Heryanti, 2023). Among the popular e-wallet platforms in Indonesia is DANA, a local digital payment service that offers various features such as QRIS payments, bill payments, and bank transfers. The increasing use of DANA among students, especially at the Faculty of Economics and Business, Universitas Malikussaleh, shows a shift in behavior toward cashless transactions. Factors such as mobile marketing, electronic service quality (e-service quality), and cost are believed to influence customer satisfaction in using this application (Al-Hawary & Obiadat, 2021; Pham et al., 2021; Syahputri et al., 2023).

Despite DANA's growing popularity, several challenges remain, such as issues related to service quality, transaction fees, and the relevance of mobile marketing strategies. These factors may affect user satisfaction and continued usage. Hence, understanding their influence is essential for improving service delivery and retaining users in a competitive digital finance landscape. This study focuses on whether mobile marketing, e-service quality, and the cost offered by the DANA application affect customer satisfaction, particularly among students of the Faculty of Economics and Business at Malikussaleh University. These three factors are assumed to play an important role in shaping users' perceptions and experiences with the digital services they use. The objective of this study is to examine and analyze the influence of mobile marketing, e-service quality, and cost on customer satisfaction among DANA application users. By understanding these factors, the study is expected to provide insights for application managers to improve service quality and enhance user satisfaction, especially among university students.

LITERATURE REVIEW

Customer Satisfaction

Customer satisfaction refers to the customer's emotional response after using a product or service, based on the comparison between expectations and actual performance (Gunawan et al., 2021). Satisfied customers tend to repurchase and recommend the product to others, while dissatisfied ones may switch to competitors. In digital

platforms, customer satisfaction is influenced by service quality, marketing communication, and perceived cost (Nurainun et al., 2024).

Mobile Marketing

Mobile marketing is a strategy that uses mobile devices to deliver personalized and real-time promotional content. It includes features such as interactivity, localization, personalization, and convenience (Al-Hawary & Obiadat, 2021). Studies have shown that effective mobile marketing can improve user experience and customer satisfaction by offering relevant and accessible information (Ibitomi et al., 2023). However, other research indicates that mobile marketing may not always have a statistically significant effect (Mukti Kemarauwana et al., 2021).

E-Service Quality

E-service quality is the customer's evaluation of the quality of services delivered through digital platforms such as apps or websites. Key indicators include responsiveness, ease of use, reliability, accessibility, and assurance (Venkatakrishnan et al., 2023). High e-service quality increases user trust and satisfaction (Pham et al., 2021). However, findings on its impact vary; some studies found no significant effect in certain contexts (Putra, 2021).

Cost

Cost refers not only to the monetary price but also to the perceived value compared to benefits received. Factors such as affordability, fairness, and price competitiveness influence satisfaction (Syahputri et al., 2023; Inayatullah et al., 2023). When the cost aligns with perceived benefits, users are more likely to feel satisfied. On the other hand, hidden or unclear fees can decrease trust and satisfaction. Several previous studies support the influence of mobile marketing, e-service quality, and cost on customer satisfaction. For example, Dung et al. (2021) and Loo & Asrah (2022) found that cost has a strong positive effect on satisfaction. Pham et al. (2021) emphasized the role of service quality in building long-term customer relationships. Meanwhile, mobile marketing has been proven effective in enhancing user engagement (Singh, 2019), although context and target audience may affect the strength of its impact. However, a study conducted by Putra (2021) reported that the relationship was not significant. This study aims to fill that gap by examining these variables in the context of DANA application users among university students. The study is expected to provide theoretical contributions as well as practical insights for improving customer satisfaction in digital financial applications.

Hypothesis Development

Customer satisfaction is influenced by various factors, particularly in digital service contexts such as e-wallet applications. This study focuses on three key predictors: mobile marketing, e-service quality, and cost.

Mobile marketing allows companies to deliver real-time, personalized, and interactive promotional content via mobile devices. Previous studies have shown that effective mobile marketing strategies can increase customer engagement and satisfaction by offering timely and relevant information (Al-Hawary & Obiadat, 2021; Ibitomi et al., 2023). Therefore, it is hypothesized that:

H₁: Mobile marketing has a significant positive effect on customer satisfaction.

E-service quality refers to how well digital platforms meet user expectations through ease of access, responsiveness, reliability, and assurance (Pham et al., 2021; Venkatakrishnan et al., 2023). High service quality can build trust and lead to greater customer satisfaction. Thus, the second hypothesis is:

H₂: E-service quality has a significant positive effect on customer satisfaction.

Cost in this study is viewed not only as the monetary amount spent but also as the perceived value of the service. Transparent and reasonable pricing enhances user perceptions and satisfaction (Syahputri et al., 2023; Inayatullah et al., 2023). Hence, the third hypothesis proposed is:

H₃: Cost has a significant positive effect on customer satisfaction.

Based on these hypotheses, the research framework can be illustrated as follows:

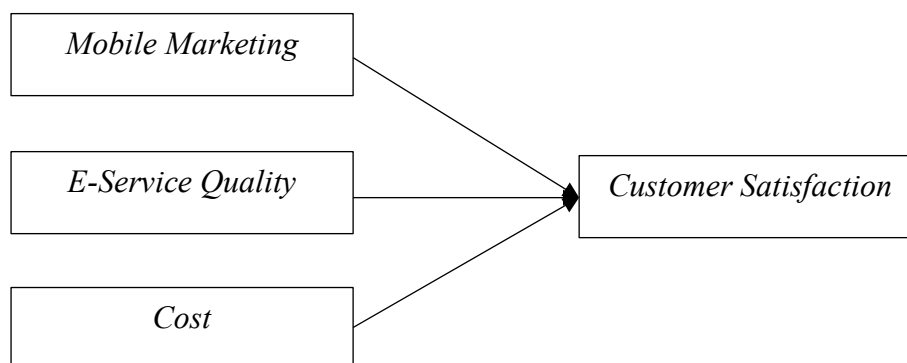


Figure 1. Research Framework

METHOD

This study employs a quantitative approach using a survey method to examine the influence of mobile marketing, electronic service quality, and cost on customer satisfaction among DANA application users. The research object consists of active students of the Faculty of Economics and Business at Malikussaleh University who use the DANA application. The sample includes 114 respondents selected through purposive sampling. Primary data were collected through a questionnaire using a 5-point Likert scale. The mobile marketing variable is measured through interactivity, localization, personalization, and convenience. Electronic service quality is measured through reliability, ease of use, accessibility, and assurance. The cost variable is assessed based on affordability, transaction efficiency, fairness, and clarity. Customer satisfaction is measured through repurchase intention, willingness to recommend, and the level of satisfaction. Data analysis includes validity and reliability testing, as well as classical assumption tests (normality, heteroscedasticity, and multicollinearity). Hypothesis testing is conducted using multiple linear regression with the help of SPSS version 25. The regression model used is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

- Y = Customer Satisfaction
- X1 = Mobile Marketing
- X2 = E-Service Quality
- X3 = Cost
- α = Konstanta
- $\beta_1, \beta_2, \beta_3$ = Koefisien Regresi
- ε = Error

RESULTS AND DISCUSSION (TNR, 12 BOLD)

Validity Test

The validity test is used to measure the validity of a questionnaire. If the calculated R value is greater than the R table and the significance value is less than the 0.05 level of significance used, then the research data can be concluded as valid.

Table 1. Validity Test Result

Variable Customer Satisfaction			
No	r_{hitung}	r_{tabel}	Description
1	0.799	0.1840	Valid
2	0.785	0.1840	Valid
3	0.813	0.1840	Valid
4	0.721	0.1840	Valid
5	0.830	0.1840	Valid

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Variable Mobile Marketing			
No	r _{hitung}	r _{tabel}	Description
1	0.824	0.1840	Valid
2	0.827	0.1840	Valid
3	0.841	0.1840	Valid
4	0.863	0.1840	Valid

Variable E- Service Quality			
No	r _{hitung}	r _{tabel}	Description
1	0.746	0.1840	Valid
2	0.823	0.1840	Valid
3	0.798	0.1840	Valid
4	0.794	0.1840	Valid
5	0.790	0.1840	Valid
6	0.790	0.1840	Valid

Variable Cost			
No	r _{hitung}	r _{tabel}	Description
1	0.866	0.1840	Valid
2	0.866	0.1840	Valid
3	0.885	0.1840	Valid
4	0.848	0.1840	Valid

The calculated r-value is greater than 0.1840, indicating that each statement item in the questionnaire is considered valid.

Table 2. Reliability Test Result

Variable	Cronbach Alpha	Standar Alpha	Description
Mobile Marketing	0.859	0.60	Reliable
E- Service Quality	0.880	0.60	Reliable
Cost	0.889	0.60	Reliable
Customer Satisfaction	0.850	0.60	Reliable

The Cronbach's Alpha values for each variable namely mobile marketing, electronic service quality, and cost are all greater than 0.60. This indicates that the data obtained from the questionnaire responses in this study are reliable and considered trustworthy.

**Table 3. Normality Test Result (Kolmogorov-Smirnov)
One-Sample Kolmogorov-Smirnov Test**

Unstandardized Residual		
N		114
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.40794851
Most Extreme Differences	Absolute	.070
	Positive	.054
	Negative	-.070
Test Statistic		.070
Asymp. Sig. (2-tailed)		.200 ^{c,d}

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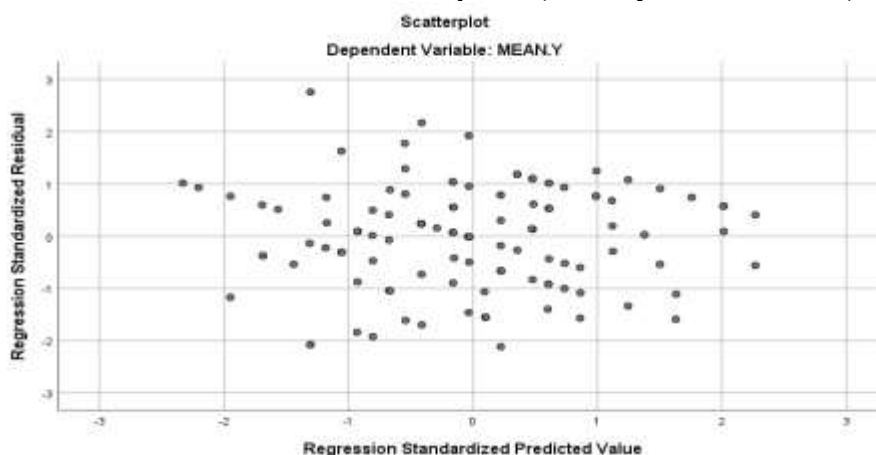
The Kolmogorov-Smirnov test shows a significance value of 0.200, indicating that the data is normally distributed.

Table 4. Multicollinearity Test Result

Variable	Tolerance	VIF
Mobile Marketing	0.994	1.006
E – Service Quality	0.996	1.004
Cost	0.997	1.003

Tolerance values > 0.10 and VIF < 10 indicate no multicollinearity issues.

Table 5. Heteroscedasticity Test (Scatterplot Observation)



There is no specific pattern in the scatterplot, suggesting no heteroscedasticity symptoms.

Table 6. Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 ^a	.308	.289	.41347

a. Predictors: (Constant), Cost, E- Service Quality, Mobile Marketing

The Adjusted R Square of 0.289 indicates that 28.9% of the variation in customer satisfaction can be explained by the three independent variables.

Table 7. Multiple Linear Regression

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.007	.470		2.141	.034
	H ₁	.278	.069	.319	4.006	.000
	H ₂	.208	.070	.236	2.975	.004
	H ₃	.279	.063	.355	4.462	.000

The regression results indicate that the constant is 1.007, with the coefficients for Mobile Marketing at 0.278, E-Service Quality at 0.208, and Costs at 0.279, each having a positive and significant effect on customer satisfaction, with significance values below 0.05.

Table 8. Partial Test Results (t-Test)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.007	.470		2.141	.034
	Mobile Marketing	.278	.069	.319	4.006	.000
	E- Service Quality	.208	.070	.236	2.975	.004
	Cost	.279	.063	.355	4.462	.000

a. Dependent Variable: Customer Satisfaction

All independent variables have significance values < 0.05 , indicating that mobile marketing, e-service quality, and cost each have a significant positive effect on customer satisfaction.

DISCUSSION

The findings of this study reveal that all three independent variables—mobile marketing, e-service quality, and cost—significantly influence customer satisfaction among users of the DANA application. Mobile marketing shows a positive and significant effect on customer satisfaction. This result supports the hypothesis (H_1) and aligns with previous research such as Al-Hawary & Obiadat (2021), which emphasized that interactive and personalized mobile marketing strategies improve user engagement and satisfaction. E-service quality also has a positive and significant impact on customer satisfaction, supporting hypothesis H_2 . This finding is consistent with Venkatakrishnan et al. (2023), who found that digital service attributes like reliability, accessibility, and personalization enhance the user experience and satisfaction in fintech platforms. Cost is found to significantly affect customer satisfaction, thereby supporting hypothesis H_3 . This result aligns with Loo & Asrah (2022), who stated that transparent, fair, and affordable costs in digital transactions play a critical role in influencing customer perceptions and satisfaction. The overall regression model shows that 28.9% of the variance in customer satisfaction is explained by the three variables, indicating a moderate level of influence. While these factors are significant, other variables beyond the scope of this study may also contribute to satisfaction. These findings highlight the importance for digital payment platforms like DANA to enhance mobile marketing effectiveness, maintain high e-service quality, and ensure cost transparency to foster positive customer experiences.

CONCLUSION

This study concludes that mobile marketing, e-service quality, and cost each have a significant and positive influence on customer satisfaction among users of the DANA digital wallet application. These findings affirm the importance of developing interactive mobile marketing strategies, maintaining reliable and personalized digital services, and ensuring transparent and affordable transaction costs. Theoretically, this research contributes to the understanding of consumer behavior in the fintech sector, particularly in how digital service factors shape user satisfaction. It reinforces existing theories such as the Technology Acceptance Model and Expectation Confirmation Theory in the context of mobile payment applications. Practically, the results provide insight for fintech developers, especially DANA, to focus on enhancing service quality, refining marketing efforts through mobile platforms, and improving the clarity and fairness of cost structures to increase customer loyalty. However, this study is limited by its focus on a single user group—students from the Faculty of Economics and Business at Universitas Malikussaleh—which may affect the generalizability of the findings. Future research is encouraged to include more diverse respondent groups and possibly apply longitudinal methods to capture changes in user perceptions over time.

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