| Research Article

Exploring the Influence of Digital Trust, Security, and Usability on User Satisfaction in E-Wallet Applications: Evidence from DANA Users

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Abstract: This study explores the influence of e-security, e-trust, and perceived ease of use on user satisfaction with the DANA digital financial application in Jember Regency, Indonesia. The rapid growth of fintech in Indonesia has transformed the financial landscape, providing more accessible and efficient financial services. However, user satisfaction is crucial for the continued success of digital financial services. Using a quantitative research approach, this study utilized a questionnaire based on a Likert scale to measure the perceptions of DANA users regarding e-security, e-trust, and perceived ease of use. The findings show that all three independent variables significantly impact user satisfaction, with e-trust having the greatest influence. Regression and t-test analyses confirm that these factors positively contribute to e-satisfaction, highlighting the importance of robust security, trust-building efforts, and user-friendly interfaces. The study emphasizes that improving these elements is essential for enhancing the overall user experience and sustaining long-term engagement with digital financial services. These insights can guide digital financial service providers in improving security features and customer service to meet user expectations and contribute to financial inclusion in Indonesia.

Key words: ideology, moral, spiritual experiences, phenomenon, social renewal, national traditions, development, ideological immunity, human dignity.

1. Introduction

Financial technology (*fintech*) in Indonesia has grown rapidly to become an important part of the national financial ecosystem, driven by technological advancements and increased internet access. *Fintech* plays a crucial role in expanding financial inclusion, especially for Indonesia's large unbanked population, so that more individuals and businesses can access financial services that were previously difficult to reach due to geographical barriers [1]. The growth of *fintech* in Indonesia is driven by innovations in various sectors, including *peer-to-peer lending*, mobile payments, and *fundingcrowd*, which provide financial solutions that are more affordable, efficient, and accessible than traditional banking systems [2]. Furthermore, *fintech* is considered a disruptive innovation that overhauls the market and encourages the development of new financial

regulations to ensure user safety and legal compliance [3] The rise of *fintech*, especially in payment systems and lending services, has made a significant contribution to Indonesia's economic growth by providing scalable and sustainable financial solutions including digital finance [4].

The rapidly growing digital finance in Indonesia has created a new dynamic in understanding the level of user satisfaction with these services. The successful adoption of digital financial technology not only depends on ease of access and service innovation, but is also heavily influenced by user satisfaction levels. User satisfaction is the main indicator in evaluating the extent to which digital financial services can meet user expectations and needs [5].

Consumer behavior is the study of how individuals or groups make decisions to choose, buy, use, and dispose of products or services to satisfy their needs (Sazanova, 2020). In this context, various theories have been developed to explain the factors that influence such behavior, including rational models and approaches that consider emotional as well as social aspects [7]. The Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (CPD), for example, highlight that attitudes, social norms, and perceptions of behavioral control play an important role in shaping consumer intentions and actions Meanwhile, the Technology Acceptance Model (TAM) shows that the perception of ease of use and usefulness of technology affects consumers' intention to adopt new technologies, especially in digital services [8]. Changes in consumer behavior are also influenced by social, affective, and cognitive factors that shape purchase decisions, both rationally and impulsively [9]. In this case, *e-security*, *e-trust*, and *perceived ease of use* are important variables that affect consumer satisfaction (*e-satisfaction*), where digital security and trust play a major role in creating a safe and comfortable experience for users of digital financial services such as DANA [10].

The advancement of digital finance in Indonesia is increasingly felt as a positive impact of information technology transformation. The rapid growth of smartphone penetration and internet access has opened up opportunities for Indonesians to adopt digital financial services more widely [11]. The use of online banking applications, such as interbank fund transfers, bill payments, and online product purchases, is becoming increasingly common in the community [12]. In addition, digital payment platforms, including *e-wallets* such as DANA, GoPay, and OVO, have played a central role in facilitating everyday transactions [13]. The adoption of this technology contributes positively to financial inclusion, enabling access to financial services for individuals that may have previously been difficult to reach by conventional systems [1]. However, along with these advancements, challenges arise related to the security aspects and user trust in digital finance. Increased awareness of digital security and trust is crucial to ensure that users feel comfortable and safe in using digital financial services [14]. Therefore, a deep understanding of the factors that affect user satisfaction is important in directing the positive development of digital finance in Indonesia.

Previous research has found findings that provide insight into the factors that influence satisfaction and adoption of digital services. [15] found that *e-security* and digital service quality have a positive and significant effect on user satisfaction. [16] also concluded that *e-trust* has a positive and significant impact on user satisfaction. [17] highlights the positive and significant influence of perceived usefulness and perceived enjoyment on the intention to continue using the service. Although *perceived ease of use* has a positive and significant influence on perceived usefulness and *perceived enjoyment,* it has a non-significant negative relationship with the intention to continue using the service directly. [18] presents the results of multiple linear analysis which shows that the perception of benefits, perception of convenience, service features, and trust have a positive and significant effect on the level of customer satisfaction in LinkAja users in Indonesia both partially and simultaneously. [19] stated that simultaneously, *e-service quality* has a positive effect on customer satisfaction in PLN mobile application users. However, partially, the

dimensions *of efficient and reliable, fulfillment, responsiveness*, and *ease of use* have an influence on customer satisfaction, while *e-security* and *e-trust* do not have a significant effect on PLN Mobile application user satisfaction.

The DANA application has become one of the key actors in the digital financial ecosystem in Indonesia. With the rapid development of the digital financial sector in the country, DANA has succeeded in establishing its presence as a popular payment and digital financial service provider [20]. Initial research by researchers found that the main factors driving this interest include ease of access, flexibility, and innovation offered by digital financial services.

The people of Jember find that the use of online banking applications, digital payment platforms, and electronic financial services provides convenience in conducting transactions, payments, and financial management efficiently, without having to rely on cash. Transaction security is DANA's main focus, and these service providers continue to improve security features, such as two-factor authentication, to provide users with a sense of security (Ramadhan et al., 2023). However, the challenges faced by digital financial services such as DANA include aspects of security and user trust. Increasing awareness of data protection and transaction security is essential to ensure the sustainability of positive adoption by the community [22]. "At 00.40, the user received an OTP from DANA without making a transaction. Although initially the balance was still recorded at Rp700,847, at 00.54, suddenly the balance disappeared. Checking the transaction history shows that there is a QRIS payment transaction of Rp700,000 that has never been made by the user."

Complaints about the slow response and quality of customer service also emerged. Users emphasize the risk of saving money in DANA and feel that there is no adequate guarantee of customer security [23]. In conclusion, this bad experience highlights some of the obstacles faced by DANA users, inviting serious questions about the security, responsiveness, and quality of customer service of this app provider. This research is very important and urgent to be carried out considering the phenomenon that describes the uncertainty and user complaints about the DANA application, especially related to security (*e-security*), trust *(e-trust),* and perceived *ease of use (perceived ease of use)*). Based on concrete complaints from users who have experienced loss of balance and difficulties in accessing customer service, there is an urgent need to dig deeper into the impact of these factors on user satisfaction. Gap in previous studies shows that there has been no specific study that explores the influence of *e-security, e-trust*, and *perceived ease of use* on *e-satisfaction* in the context of DANA's digital financial applications, especially in Jember Regency. Therefore, this research will make a significant contribution to filling the knowledge gap.

The decline in performance and adverse events in the DANA application indicates the need for a deeper understanding of the factors that can affect user satisfaction. Thus, this research will provide valuable insights for digital financial service providers, local governments, and the people of Jember Regency in improving the quality of services and the security of the DANA application. This research can also provide practical recommendations to improve the security, trust, and ease of use of digital financial applications not only for DANA but can also provide general guidance for similar service providers. Thus, this research not only has academic urgency but is also practically relevant for relevant stakeholders in Jember Regency and its surroundings.

2. Materials and Methods

This study is designed to involve the entire DANA user community in Jember Regency with the aim of evaluating the Influence of E-security, E-trust, and Perceived ease of use on the E-satisfaction of DANA Users. This research is incidental, focuses on a specific time period, and uses quantitative methods. The data collection method used was a questionnaire with a Likert scale of 1-5, where respondents were asked to give an assessment of statements related to the research variables
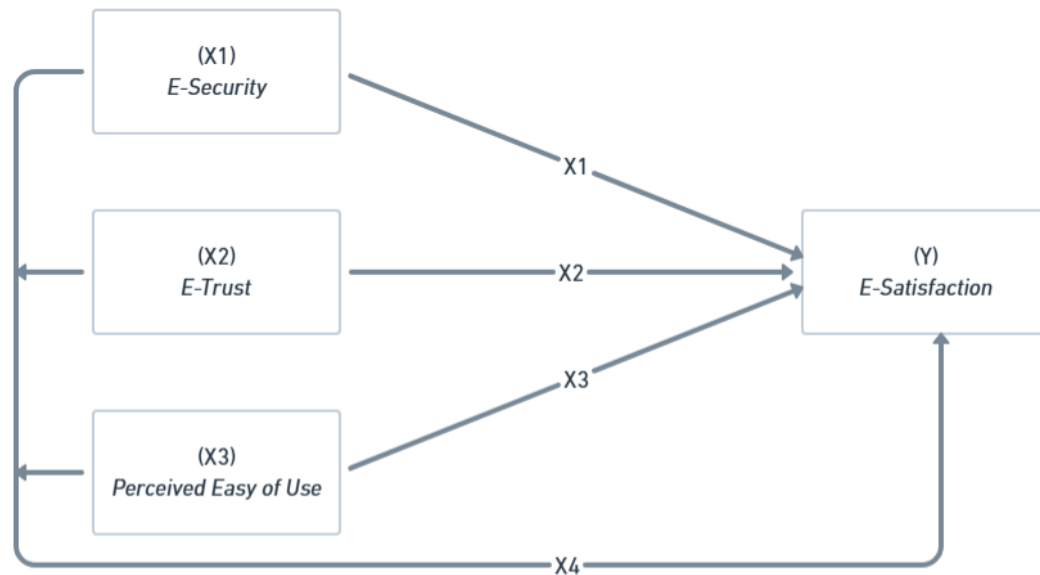
Figure 1. Conceptual Framework

By referring to the random sampling method and using the sample number guideline from [24] which multiplies the number of research indicators by 10, where this study has 18 indicators, the expected number of samples can be calculated as follows:

Number of Samples = Number of Indicators × Multiplier

Number of Samples =18 × 10 = 180 Respondent Samples

The research process begins with the planning and design of a questionnaire that includes questions designed to measure key variables, *namely E-security, E-trust, Perceived ease of use, and E-satisfaction.* The questionnaire was then distributed to all DANA users in Jember Regency. The collected data will then be processed and analyzed using *the SPSS for Windows statistical program.*Data analysis involves statistical techniques, such as regression, to assess the extent to which independent variables (*E-security, E-trust, and Perceived ease of use*) affect dependent variables (*E-satisfaction*). The results of this analysis will provide an understanding of the extent to which these factors contribute to the level of satisfaction of DANA users in Jember Regency.

3. Results

The t-test was used to test the partial influence between each independent variable on the dependent variable in the research model. This test aims to find out whether each independent variable, such as X1 (*E-Security*), X2 (*E-Trust*), and X3 (*Perceived Ease of Use*), has a significant influence on the dependent variable Y (*E-Satisfaction*). The significance value (*p-value*) obtained from the t-test will be compared with the significance level (α) of 0.05.

Table 1. t-test Result

1. Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	9.008	1.330		6.774	<,001
X1_Total	0.539	0.150	0.257	3.602	<,001
X2_Total	0.511	0.073	0.499	6.990	<,001
X3_Total	0.255	0.056	0.229	4.573	<,001

Based on the results of the t-test in the *Coefficients table*, it can be seen that all independent variables, namely X1 (*E-Security*), X2 (*E-Trust*), and X3 (*Perceived Ease of Use*), have a significance value (*p-value*) of <0.001, which means that these three variables partially have a significant effect on the dependent variable Y (*E-Satisfaction*). The t-values of each variable were 3.602 for X1, 6.990 for X2, and 4.573 for X3, indicating that X2 (*E-Trust*) had the greatest partial influence on Y. In addition, the Beta coefficient values for X1 (0.257), X2 (0.499), and X3 (0.229) indicated a positive direction of influence, which means that an increase in each independent variable would increase *E-Satisfaction.* Thus, these three independent variables make a significant and positive contribution to user satisfaction in this study. The next step is F test.

The F test was conducted to test the simultaneous influence between independent variables on dependent variables in the research model. This test aims to find out whether the independent variables, namely X1 (*E-Security*), X2 (*E-Trust*), and X3 (*Perceived Ease of Use*), together have a significant influence on the dependent variable Y (*E-Satisfaction*). The F test uses a significance value (*p-value*) which is compared to the significance level (α) of 0.05. If *the p-value* is less than 0.05, then it can be concluded that the independent variable simultaneously has a significant effect on the dependent variable. The results of this test provide an overview of the collective strength of independent variables in explaining changes in dependent variables.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	693.275	3	231.092	74.495	<.001
Residual	545.969	176	3.102		
Total	1239.244	179			

Based on the results of the F test in the *ANOVA table*, it can be seen that the F value is calculated at 74,495 with a significance value (*p-value*) of <0.001. This shows that the independent variables, namely X1 (*E-Security*), X2 (*E-Trust*), and X3 (*Perceived Ease of Use*), simultaneously have a significant influence on the dependent variable Y (*E-Satisfaction*). With a *Sum of Squares Regression* value of 693,275 and *a Residual* value of 545,969, the contribution of independent variables to the model is quite large.

4. Discussion

The results of this study highlight the significant impact of e-security, e-trust, and perceived ease of use on user satisfaction with DANA, a leading digital financial service provider in Indonesia. These factors, when examined both independently and in combination, play a pivotal role in shaping users' overall satisfaction with the application. E-security, particularly, was found to be a major determinant of user satisfaction, as it addresses concerns regarding transaction safety and personal data protection. This finding aligns with previous research by [10], which emphasized the importance of robust security measures in fostering trust among users of digital financial services. The need for secure platforms is particularly critical as users seek platforms that offer both reliability and protection against potential cyber threats.

In addition to e-security, e-trust emerged as a crucial factor influencing user satisfaction. As noted by Aryshia [16], trust in digital services can significantly enhance user satisfaction. This is particularly true for financial services where users expect transparency, consistent service quality, and the protection of their financial transactions. The results of this study corroborate these findings, as DANA's ability to build trust through its security measures and responsive customer support is directly linked to higher user satisfaction. However, the challenges related to user complaints about slow customer service and the perception of inadequate security measures, as mentioned in the study by [23], suggest that trust-building efforts need to be continuously improved.

Perceived ease of use was another key determinant of e-satisfaction in this study. Consistent with the Technology Acceptance Model (TAM), which suggests that the ease of use and perceived usefulness of technology significantly affect user adoption [8], the findings underscore the importance of user-friendly interfaces and seamless navigation in ensuring that users continue to engage with digital financial platforms. The positive relationship between perceived ease of use and e-satisfaction observed in this study further supports the idea that digital platforms must prioritize intuitive design and minimize user friction to enhance satisfaction levels.

Furthermore, the regression and t-test results reveal that all three independent variables—e-security, e-trust, and perceived ease of use have a statistically significant positive influence on e-satisfaction, with e-trust having the greatest impact. This result is consistent with prior studies by [4], [18], which highlight the central role of trust and security in the digital finance ecosystem. The F-test results also confirm that these variables, when considered together, provide a substantial contribution to explaining the variance in user satisfaction, highlighting the interconnectedness of these factors in shaping the user experience.

Overall, these findings emphasize the importance of addressing the key determinants of user satisfaction in digital financial services. For providers like DANA, ensuring robust security features, building and maintaining user trust, and enhancing the user experience through ease of use are essential strategies for sustaining and growing their user base. As digital finance continues to evolve, ongoing efforts to improve these factors will be critical to fostering long-term user satisfaction

5. Conclusion

This study demonstrates that e-security, e-trust, and perceived ease of use are critical factors that significantly influence user satisfaction with digital financial services, particularly in the case of DANA in Indonesia. The results underline the importance of providing secure, trustworthy, and easy-to-use platforms for enhancing user satisfaction. These findings are consistent with previous research, which emphasizes the role of these variables in fostering positive user experiences and ensuring the continued growth of digital finance. As digital finance services evolve, it is crucial for providers to focus on strengthening these elements to maintain and increase user satisfaction, while also addressing challenges such as customer service responsiveness and security concerns. By doing so, digital financial service providers can better meet user expectations and contribute to broader financial inclusion goals in Indonesia.

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