

ADOPTION OF E-WALLET TECHNOLOGY: ANALYZING INNOVATION DIFFUSION FACTORS

Resa Nurlaela Anwar^{1*}, Cattleya Maharani Kusuma Putri²

^{1,2}Department of Management, Faculty of Economics, Darma Persada University
Email: resa.anwar@gmail.com¹; maharanicattleya@gmail.com

ABSTRACT

To analyzing the influence of relative advantage, compatibility, complexity, and trialability on the intention to adopt DANA e-wallet. Quantitative approach with multiple linear regression analysis. The purposive sampling technique is used in determining the sample. The data collected through the questionnaire was analyzed and processed using SPSS Ver26. Simultaneously Diffusion of Innovation has a positive and significant influence on the intention to adopt DANA e-wallet in East Jakarta. Partially, relative advantage, complexity, and trialability had a positive and significant influence on the intention to adopt DANA e-wallet in East Jakarta, while compatibility had no affect. Combining Diffusion of Innovation (DOI), such as relative advantage, compatibility, complexity, and trialability to the intention to adopt. Can provide input for companies in designing more effective marketing strategies according to the market's desires, can contribute to the design of government policies that support the deployment of inclusive financial technology. In addition, it can assist individuals in making the right decision in adopting e-wallets.

Keywords: *Diffusion of Innovation (DOI), Intention to Adopt, E-Wallet DANA*

INTRODUCTION

The significant development of information technology (IT), initially of web-based technology 1.0 and 2.0 era in the 1990s, to web technology 3.0, has changed people's habit patterns (Saragih & Husain, 2012). A new target markets as one of the trends that have become the societal adherence in developing countries, i.e., shopping trends. The financial and banking sectors play a major role in people's lives in their routines in the digital era and facing the web 3.0 era (Nasution & Nasution, 2023; Handayani, 2022). Digital innovation in the financial sector, particularly by ways of information technology advancements, has carried out about significant changes in the transaction habits of the global community, including in Indonesia. One of the increasingly popular innovations is the use of e-wallets, which allow for practical and efficient non-cash transactions (Populix, 2024). In Indonesia, e-wallets are a non-cash payment instrument that continues to grow along with the increasing internet penetration and smartphone use (Reynaldy, 2024).

DANA is one of the most famous about e-wallets, which offers various conveniences in transactions such as bill payments, credit purchases, transfers between users at no additional cost, as well as additional features such as DANA Gold, DANA Cicil, cashback promos, and balance security (Kristardi, 2024). Although DANA has a high number of downloads, its active user rankings are still below competitors such as GoPay, OVO, and ShopeePay (AppBrain, 2024; Scuderia, 2024).

Even so, the high rating on Google Play and the many positive reviews show great potential for DANA if it is able to improve shortcomings such as security and expand its use ecosystem (Google Play Store, 2024).

This study uses the Diffusion of Innovation Theory approach initiated by Everet M. Rogers and D. Williams (1983), which explains how an innovation is disseminated and adopted in society through five main characteristics: Relative Advantage, Compatibility, Complexity, Trialability, and Observability (Indriyati & Aisyah, 2019). Relative advantage explains that a new innovation is considered better than the innovation it replaces. The better the relative advantage, the faster the innovation will be adopted. Compatibility describes an innovation considered in accordance with existing values, past experience, and the needs of its users. An innovation that is contrary to the general values and principles of the social system will be difficult to accept quickly (Rianti & Rikumahu, 2020).

Complexity is the level of innovation complexity that is taken because of the difficulty of innovation to understand and use. Innovations that are easy to understand and use will be quickly accepted by the social system. The user experience will make it easier to use technology. Trialability describes that new innovations can be tested first before being bound for use. Innovations that can be tested first 18 times in real situations will be adopted more quickly. Observability indicates the extent to which the results of using an innovation

can be seen by others. The easier it is to see the results, the more likely it is that the innovation will be accepted (Indriyati & Aisyah, 2019). However, this study will not further explain the characteristics of Observability. DOI factors are key in increasing public intention to adopt DANA as the main digital payment tool.

LITERATURE REVIEW

The Effect of Diffusion of Innovation (DOI) on Intention to Adopt

Diffusion of Innovation (DOI) is a concept that describes how innovation is disseminated and adopted by individuals or groups in a social system through the process of communication (Suryafma *et al.*, 2023). This theory was originally developed by Gabriel Tarde and later popularized by Everett Rogers (Wiratno, 2020). In the book *Diffusion of Innovation*, Rogers states that the adoption of innovation is influenced by five main characteristics, namely: Relative Advantage (advantage over previous methods), Compatibility (conformity with user values and needs), Complexity (level of ease of use), Trialability (ease of trying), and Observability (visibility of results). However, in this study, the observability aspect was not the focus of the study. The innovation adoption phases covered by 5 (five) stages, namely: knowledge, persuasion, decision, implementation and confirmation (Wibowo, 2019). These stages are the foundation for understanding how individuals or communities decide to accept an innovation. In this process, the persuasion stage becomes very important because this is where individuals begin to form attitudes towards innovation based on their perception of the characteristics of innovation.

In the context of Intention to Adopt, DOI theory is particularly relevant because it explains how a person's perception of the characteristics of an innovation affects their intention to adopt it. Intention to adopt is the initial stage of the actual process of use, where a person shows a tendency or desire to use a new technology based on the belief that the innovation brings benefits, according to his needs, is easy to use, can be tried, and the results are obvious.

One form of information technology innovation that is widely researched in the context of DOI is e-wallets (digital wallets). E-wallets enable cashless transactions quickly and efficiently, and are now part of Indonesia's rapidly growing digital payment system. Although many e-wallet platforms have emerged, such as DANA, GoPay, and OVO, the adoption rate of each one varies. DOIs help explain why some users are quick to adopt e-wallets (early adopters), while

others tend to be slow or even rejecting (laggards), depending on their perception of the characteristics of the innovation as well as social influence and access to information (Houston, 2020). Thus, the DOI provides a strong theoretical framework for understanding why and how someone has the intention to adopt an e-wallet, as well as the factors that accelerate or hinder the process in society.

H1: Diffusion of Innovation (DOI) has a positive and significant effect on Intention to Adopt

The Effect of Relative Advantage on Intention to Adopt

Relative advantage is the degree to which an innovation is allowed better compared to the prior method. Innovations that provide real benefits in terms of finance, efficiency, convenience, social status, and user satisfaction will be more quickly accepted by the public. The assessment of these advantages is subjective, depending on individual perceptions and the needs of the user group. On the contrary, if not, then adoption will be hampered (Alim & Fitria, 2020; Azman *et al.*, 2021; Latip *et al.*, 2021; Jatmiko & Imronudin, 2023). According to Alim & Fitria (2020), there are indicators of relative advantage, namely economic and social achievement.

H2: Relative Advantage has a positive and significant effect on Intention to Adopt

The Effect of Compatibility on Intention to Adopt

Compatibility is the level of conformity of innovation with values, culture, social norms, needs, and user experience. Innovations that are in harmony with people's conditions and lifestyles will be easier to accept and adopt. On the other hand, innovations that are not suitable tend to be difficult to implement and risk rejection (Sutisna *et al.*, 2022; Latip *et al.*, 2021; Jatmiko & Imronudin, 2023). According to Hariyani *et al.* (2019), compatibility indicators are according to needs, according to values and experience, according to values in society.

H3: Compatibility has a positive and significant effect on Intention to Adopt

The Effect of Complexity on Intention to Adopt

Complexity is the extent to which an innovation is considered difficult to understand and use. Easy-to-understand innovations tend to be adopted faster, while complex innovations hinder adoption because they require new understanding and skills. The level of complexity can differ between groups, so the management and simplification of innovation is key to accelerating the adoption process (Sutisna *et al.*, 2022; Latip *et al.*, 2021). According to Badri (2020), the complexity indicator is easy to install, easy to learn, and easy to use.

H4: Complexity has a positive and significant effect on Intention to Adopt

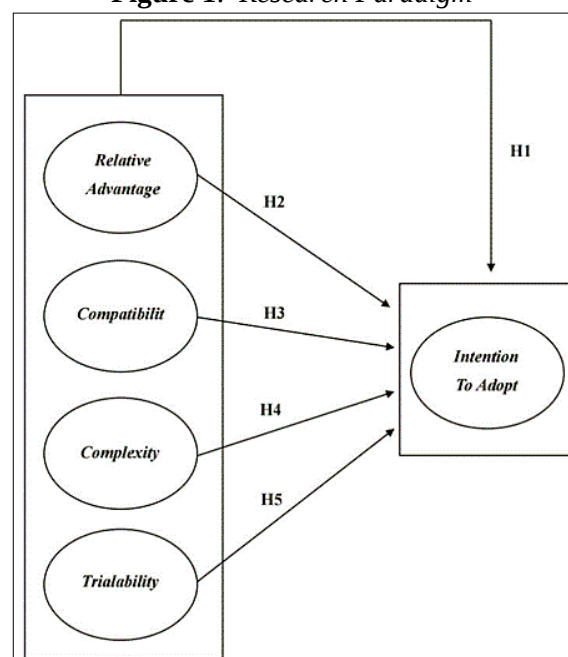
The Effect of Trialability on Intention to Adopt

Trialability is the extent to which an innovation can be tested before it is fully adopted. Easy-to-test innovations help users understand the benefits, functions, and risks, thereby accelerating the adoption process. Trials also allow for customization and improvement of innovations based on user experience, as well as reduce uncertainty in adoption decision-making (Sutisna *et al.*, 2022; Winarti *et al.*, 2021; Latip *et al.*, 2021). According to Badri (2020) and Pynnönen *et al* (2021), indicators of trialability are partial trials and factors that affect trial learning.

H5: Trialability has a positive and significant effect on Intention to Adopt

The framework in study is something relatively small in size and objectives to show the linkage among variables that influence each other (Supranto & Limakrisna, 2019, hal. 31). Furthermore, a building (model) in establish of structure, form, content, and meaning with assure parameters and boundaries in making decisions (Husain, 2019). A research paradigm is a framework that is designed and needed as a medium for a researcher's thinking framework to be specifically formulated into a research model, which viewed in Figure 1 below:

Figure 1: Research Paradigm



Source: Proposed in (2024)

METHOD

This study utilizes a quantitative approach that objectives to test the linkage between instruments through numerical data analysis (Fraenkel & Wallen, 2012:328). The data collection technique is carried out through a survey by distributing questionnaires online using Google Forms. The questionnaire was distributed through social media such as WhatsApp and Instagram, and consisted of two parts, namely respondents' personal data and statements related to research variables measured using the Likert scale. The variables in this study were described into 13 indicators, which were then used as the basis for the preparation of 39 statements in the questionnaire. The data is processed using SPSS Software Ver26, where testing of hypothetical models was carried out with regression equations. Primary data is used in this study, namely

questionnaire by closed statement, as well as secondary data gathered from journals, books, papers, articles, and previous research accessed via the internet. The population in this study is DANA e-wallet users who are domiciled in East Jakarta and have made transactions at least twice in the past month. To determine the sample, the author used a non-probability sampling method, especially the purposive sampling technique, with the criteria of respondents: (a) DANA e-wallet users who have transacted at least twice in the past month, (b) reside in East Jakarta, and (c) are 17 years old and older. Because the population in this study is very large and unknown, the number of samples will be computed using the Lemeshow formula as follows:

$$n = \frac{Z^2 \cdot P(1 - P)}{d^2}$$

Information:

n = Number of samples

Z = 1.96 (at 95% confidence)

P = 5% or 0.05 (maximum estimate/proportion)

d^2 = 10% or 0.1 (sample error level tolerance limit/precision)

By using the formula above, the following calculation is obtained (Riyanto & Hatmawan, 2020, hal. 13-14):

$$n = \frac{1,96^2 \cdot 0,5(1 - 0,5)}{0,1^2} = 96,04$$

Based on the formula above, 96.4 were obtained, which were rounded up into 100 respondents. Data analysis processing with multiple regression technique, with data validity and instrument reliability before hypothesis testing.

A significant probability level must less than 0.05 was decided from t-Test and F-Test (ANOVA).

RESULT AND DISCUSSIONS

The respondents in this study are DANA e-wallet users who are domiciled in East Jakarta and have made transactions at least twice in the past month. Before entering the data analysis, a description of the respondent's characteristics obtained through identity tabulation from the questionnaire that has been filled out is first presented. This data provides an overview of respondent profiles based on gender, age, and job categories.

Table 1 Respondent Profile

Characteristic	Information	Number of Respondents	Percentage
Gender	Man	13	13%
	Woman	87	87%
Age	17-25 years old	91	91%
	26-35 years old	9	9%
Final Education	High School/Vocational School	40	40%
	Diploma (D1/D2/D3)	3	3%
	Bachelor (S1)	56	56%
	Postgraduate (S2)	1	1%
	Student/Student	39	39%
Profession	Educators	6	6%
	Private Employees	41	41%
	Businessman	1	1%
	Other	13	13%
Marital Status	Married	10	10%
	Unmarried	90	90%
Monthly Revenue	< Rp 2.000.000	40	40%
	Rp 2.000.000 - Rp 5.000.000	52	52%
	Rp 6.000.000 - Rp 10.000.000	7	7%
	> Rp 10.000.000	1	1%
Reasons to Use DANA E-Wallet	Practical and efficient	80	80%
	Promo	2	2%
	Try new technology	13	13%
	Recommendations from friends	5	5%
Monthly Withdrawal For DANA E-Wallet Top-Up	< Rp 50.000	23	23%
	Rp 50.000 – Rp 500.000	65	65%
	Rp 600.000 – Rp 1.000.000	9	9%
	> Rp 1.000.000	3	3%
Routine Activities When Using the DANA E-Wallet Application	Transfer	52	52%
	Pay bills (Electricity, Credit, Card, etc.)	24	24%
	Shop	20	20%
	Other	4	4%

Source: Results in (2024)

The majority of DANA e-wallet users in this study are women, because they are more active in daily transactions and are interested in the convenience and promos offered. The 17–25 years old age group is the most users because they are a digital native generation who are familiar with technology and love fast and convenient transactions. Most of the users are educated at the end of their bachelor's degree, as a high level of digital literacy makes it easier for them to understand and adopt financial technology. The dominant jobs are private employees and students/students who need flexible transaction tools to support daily activities. The majority are unmarried, so they have freer spending and tend to be exploratory towards digital services. From an

economic point of view, users with an income below IDR 5,000,000 per month prefer e-wallets because of cost-saving features such as cashback and free admin fees. The main reason for using e-wallets is practicality and efficiency in transactions, especially for money transfers, paying bills, and shopping. The average monthly expenditure for e-wallet top-up is in the range of IDR 50,000 to IDR 500,000, reflecting regular use for daily needs.

This study presents several types of tests, namely validity tests, reliability tests, regression tests, and ANOVA tests. All variables studied consisted of 13 indicators, with a total of 39 statements that respondents had to answer through questionnaires.

Table 2 Results of Validity Yield

Variable	Indicators	Item Statements	R Score	R Table	Information
<i>Relative Advantage</i>	1	RA1	0,589	0,196	<i>Valid</i>
		RA2	0,689		
		RA3	0,691		
	2	RA4	0,771		
		RA5	0,760		
		RA6	0,628		
<i>Compatibility</i>	1	CB1	0,713	0,196	<i>Valid</i>
		CB2	0,660		
		CB3	0,665		
	2	CB4	0,770		
		CB5	0,682		
		CB6	0,624		
	3	CB7	0,703		
		CB8	0,738		
		CB9	0,719		
<i>Complexity</i>	1	CX1	0,521	0,196	<i>Valid</i>
		CX2	0,704		
		CX3	0,741		
	2	CX4	0,724		
		CX5	0,715		
		CX6	0,592		
	3	CX7	0,692		
		CX8	0,531		
		CX9	0,613		
<i>Trialability</i>	1	TR1	0,792	0,196	<i>Valid</i>
		TR2	0,747		
		TR3	0,798		
	2	TR4	0,812		
		TR5	0,768		
		TR6	0,685		
<i>Intention to Adopt</i>	1	ITA1	0,783	0,196	<i>Valid</i>
		ITA2	0,830		
		ITA3	0,825		
	2	ITA4	0,778		
		ITA5	0,821		
		ITA6	0,818		
	3	ITA7	0,810		
		ITA8	0,823		
		ITA9	0,805		

Source: Results in (2024)

Based on the table above, it is known that the calculated r value of all indicators is greater than the r value of the table, which is more than

0.196 (Ghozali, 2021), so it can be concluded that all indicators in this study are valid.

Table 3 Results of Reliability Yield

Variable	Cronbach's Alpha	Significance Levels	Information
<i>Relative Advantage (X1)</i>	0,759	0,600	<i>Reliable</i>
<i>Compatibility (X2)</i>	0,865		
<i>Complexity (X3)</i>	0,823		
<i>Trialability (X4)</i>	0,859		

Variable	Cronbach's Alpha	Significance Levels	Information
Intention To Adopt (Y)	0,933		

Source: Results in (2024)

From the Table 3, the Cronbach Alpha score of all variables is higher than 0.600 (Sugiyono, 2023), it means *reliable*. Thus, the each of item statement of these variable are appropriate for take as a measuring tool. Multiple linear regression

analysis objectives to assign wheter there is an implication of of independent components to the dependent variables. The statistical calculations used in this analysis are obtained below:

Table 4 Regression t Test Yield

Variable	β Score	Std. Error	t-Statistic	Sig	Information
Relative Advantage → Intention to Adopt	0,865	0,188	4.604	.000	Accepted
Compatibility → Intention to Adopt	0,016	0,137	.121	.904	Rejected
Complexity → Intention to Adopt	0,367	0,139	2.630	.010	Accepted
Trialability → Intention to Adopt	0,450	0,139	3.247	.002	Accepted

Source: Results in (2024)

The analysis yielded that the tested influence between the variables relative advantage, complexity, and trialability on intention to adopt was proven to be significant. However, it is different from the compatibility variable, which does not have a significant implication on the intention to adopt. From the Tabel 4 above, the relative advantage has the strongest influence on intention to adopt, followed by trialability and complexity. This shows that the relative advantage

that focuses on the adoption of innovation has the greatest impact in influencing consumers' intentions in adopting DANA e-wallets.

The next is to perform the F Test to determine the influence of free variables on bound variables together or simultaneously. In this study, the independent components are relative advantage, complexity, and trialability, while the dependent variables are intention to adopt. The statistical of ANOVA analysis below:

Table 5 ANOVA Test Yield

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2686.501	4	671.625	40.615	.000 ^b
Residual	1570.939	95	16.536		
Total	4257.440	99			

Source: Results in SPSS Programs (2024)

The regression analysis yield represent that the regression model that connects the components relative advantage, compatibility, complexity, and trialability with intention to adopt has a very high significance. A value of F (40.615) with a value of Sig. (0.000) indicates that this regression model is significant overall and can explain the variability of intention to adopt significantly. Simultaneously, these results support that the variables relative advantage, compatibility, complexity, and trialability have a significant implication on intention to adopt.

DISCUSSIONS

Based on table 5, the F value is calculated as 40.615 with the F value of the table 2.469 (k; n-k = 4; 96). So it can be known, F calculates > F table

(40.615 > 2.469) so that the F test is simultaneously valid in this regression test where H0 is rejected and H1 is accepted, this result shows that together there is a significant positive influence between relative advantage, compatibility, complexity, and trialability on the intention to adopt DANA e-wallet. The effect was 0.631 or 63.1% and the remaining 36.9% was influenced by other factors that were not studied. This can be interpreted as that users feel that DANA e-wallets have advantages, are suitable, easy to use, can be tried first so as to encourage their intention to adopt them. Users perceive DANA e-wallets as a faster, more practical, or more economical payment method than cash or debit card payments. DANA e-wallets are also in accordance with the values, needs, and habits of users, especially urban people

who are used to transacting digitally and mobilely. Supported by a simple interface, easy to use even for new users, making DANA e-wallets faster to adopt. A variety of attractive promos and cashback also make users more confident and encouraged to use it regularly. Therefore, by understanding the characteristics in Diffusion of Innovation, users feel more secure and confident as they can assess whether the DANA e-wallet is suitable and beneficial for them, thus reducing doubts and increasing adoption. The results of this study are also in line with previous research (Hidayat, 2023; Suryafma *et al*, 2023; Katiya & Rikumahu, 2022) which states that simultaneously Diffusion of Innovation (relative advantage, compatibility, complexity, and trialability) affects the intention to adopt.

The relative advantage variable (from Table 4), has positive and significant influence towards intention to adopt. The effect yields were proven by the t Test, the t result was calculated $> t$ table and the sig value < 0.05 . The effect was 0.509 or 50.9% and the remaining 49.1% was effected by other variables that were not studied. The intention to adopt DANA e-wallet can be influenced by relative advantage because many respondents in the study indicated that they chose to use DANA e-wallet because it is considered a more effective and efficient payment method than the previous method. Relative advantage itself refers to the coverage to which an innovation is considered superior to the previous idea. In this case, DANA e-wallets provide convenience in transactions, save time, and reduce the difficulty of carrying physical money. In addition, users also consider DANA to be a modern and practical service, which is in accordance with today's all-digital lifestyle. This perception of convenience and real benefits encourages individuals to be more interested, interested, and finally decide to adopt the DANA e-wallet as part of their daily transaction habits. The yields of this finding also in line with prior study (Jatmiko & Imronudin, 2023; Suryafma *et al*, 2023; Katiya & Rikumahu, 2022; Rianti & Rikumahu, 2020; Indriyati & Aisyah, 2019; Syarifah *et al*, 2020; Fahad & Shahid, 2022) which states that relative advantage affects the intention to adopt.

The compatibility variable (from Table 4), doesn't have a positive and significant influence towards intention to adopt. This finding is evidenced by the t Test, the t-stats. Of the calculation $< t$ table is $0.121 < 1.985$ and sig. $0.904 > 0.05$, meaning that there is no significant effect between compatibility and intention to adopt DANA e-wallet in this research. Although compatibility and intention to adopt are related,

compatibility is not strong enough to directly affect intention to adopt. This is in line with study conducted by Fahad & Shahid (2022) and Do & Do (2020) which explains that compatibility does not affect intention to use. In addition, research by Nawi *et al* (2024), revealed that perceived trust mediates the linkage among compatibility and intention to adopt on e-wallets. According to him, one of the most important components of increasing new technological advancements for service providers is to ensure that users can trust the service. If the level of trust is low, they will tend to think that the e-wallet is less compatible so that users choose not to use it. Those who feel that e-wallets are in accordance with their values, past experiences, and needs will form a sense of trust, which will increase the intention to adopt e-wallets. As such, technology providers must undertake specific and distinctive strategies to develop trust, confidence, and compatibility to meet the various needs and expectations of consumers. E-wallet providers should focus on the app's features and provide services that are appropriate and can be used to gain user trust and increase adoption intent. This also intersects with what has happened to the DANA e-wallet, where the DANA e-wallet faces challenges in building user trust, especially as many reviews express disappointment regarding the loss of balances without prior notice. While DANA e-wallets offer a relative advantage in terms of ease of use and compatibility with digital needs, fragile trust can hinder further adoption. This security problem makes users feel wary and reluctant to make DANA e-wallets the main choice in transactions. What's more, amid the increasingly fierce competition in the e-wallet industry, with many other platforms offering similar features to security systems that are considered more reliable. As a result, most users prefer to use other e-wallets as their main service, while DANA is only used as an alternative. To regain trust and retain users, DANA e-wallets need to strengthen its security system and increase transparency so that similar incidents do not happen again.

Based on table 4, the complexity variable has a positive and significant influence on the intention towards adopt. The effect yields were proven by the t Test, the t result was calculated $> t$ table and the sig value < 0.05 . The effect was 0.404 or 40.4% and the remaining 59.6% was influenced by other variables that were not studied. Based on the responses of the respondents, many of them choose to use the DANA e-wallet because this application is considered uncomplicated and easy to operate. For example, the DANA e-wallet is easy to install and the installation process is very simple and fast, so users don't feel burdened when they first try it.

In addition, the display of the features is clear and easy to understand, making it easier for users to navigate menus or make transactions. Respondents also stated that learning how the app works is not difficult, even for new users, as using DANA e-wallets does not require any special technical skills. In addition, DANA is able to simplify the process of purchasing goods, which makes users feel more comfortable and efficient in transactions. Therefore, the low level of complexity of DANA e-wallets has also encouraged the public's intention to adopt it as a practical digital payment method. The results of this study are also in line with previous research (Katiya & Rikumahu, 2022; Fahad & Shahid, 2022) which states that complexity affects the intention to adopt.

Based on table 4, the trialability variable has a positive and significant influence on intention to adopt. The effect results were proven by the t Test, the t result was calculated $> t$ table and the sig value < 0.05 . The effect was 0.401 or 40.1% and the remaining 59.9% was influenced by other variables that were not studied. Based on the respondents' responses, they were encouraged to try using the DANA e-wallet because there was an opportunity to conduct a trial within a certain period of time, for example for one month. During this period, users can evaluate the benefits and convenience offered by the application without having to make a full commitment right away. Some respondents stated that they feel more comfortable trying out DANA's features first, in order to understand how it works and its benefits firsthand. In addition, promotional periods such as cashback or discounts are also triggers that make respondents willing to use DANA for a certain period of time as a form of trial. This attitude shows that the ease of trying an innovation such as the DANA e-wallet can reduce users' doubts, strengthen trust in the product, and ultimately encourage their intention to adopt overall by upgrading to a premium account. The yields of this finding are also in line with prior research from (Jatmiko & Imronudin, 2023; Suryafma et al., 2023; Rianti & Rikumahu, 2020; Indriyati & Aisyah, 2019; Shantika et al., 2022) which states that trialability affects the intention to adopt. The yield of regression analysis on the components Brand Personality (X_1), Online Customer Review (X_2), and Variety Seeking (X_3) to prove H_1 regarding its effectiveness on Brand Switching (Y) have an F-count of 19.395 with a probability of 0.000 which is statistically significant. So, it can be inferred that there is a simultaneous influence of the Brand Personality, Online Customer Review, and Variety-seeking variables on environmentally friendly skincare products effectively on Brand Switching because the probability of significance is

less than 0.05 which accepts H_1 . This finding also produces an adjusted R-Square of 0.358, which in this regression model illustrates the contribution of the effectiveness of consumer Brand Switching for environmentally friendly Skincare products in the DKI Jakarta area, meaning that 35.8 percent is affected by components originating from Brand Personality, Online Customer Review, and Variety Seeking, the remaining 64.2 percent is influenced by other variables included in the regression model.

CONCLUSIONS

Diffusion of Innovation (relative advantage, compatibility, complexity, and trialability) has been proven to have a positive and significant influence on intention to adopt. This is supported by the results of the F test, where the calculated F value is greater than the F of the table and the significance value is less than 0.05. Simultaneously, the four variables contributed 63.1% to intention to adopt, while the remaining 36.9% were influenced by other factors outside the study. The Diffusion of Innovation (DOI) characteristics represented by these four variables show an important role in increasing user intention to adopt DANA e-wallets. Therefore, DANA needs to maintain and improve these elements through improving service quality, developing application features, attractive offers, and responsiveness in services. In addition, companies also need to pay attention to market needs periodically and adjust applications to make them more accessible to various groups, especially the generation that is the main target. Continuous innovation and satisfactory service will encourage public trust and interest in choosing DANA e-wallets as the main solution in conducting digital transactions. Likewise, partially, each characteristic of Diffusion of Innovation (DOI) has a positive and significant influence on the intention to adopt DANA e-wallet in East Jakarta. However, it is different with compatibility which has no influence on the intention to adopt DANA e-wallet in East Jakarta.

REFERENCES

- Alim, Z., & Fitria, S. (2020). Analisis Pengaruh antara Relative Advantage dan Competitive Pressure terhadap Adoption E-Commerce pada UMKM Tekstil di Kota Bandung (Studi pada UMKM di Kawasan Tekstil Cigondewah). *eProceedings of Management*, 7, pp. 70-78.
- AppBrain. (2024). *DANA Indonesia Digital Wallet*. Retrieved from <https://www.appbrain.com/app/DANA Indonesia Digital Wallet/id.dana#google-play-rankings>

- Azman, N. A. N. N., Zahari, N. H. M., & ... (2021). Virtual Learning Adoption Challenges among Educators in Malaysia during Pandemic Era: A Conceptual Paper. *Global Business and Management Research: An International Journal*, 13(4s), 277-285.
- Badri, M. (2020). Adopsi Inovasi Aplikasi Dompot Digital di Kota Pekanbaru. *Inovbiz: Jurnal Inovasi Bisnis*, 8(1), 120. doi:10.35314/inovbiz.v8i1.1335
- Do, N. B., & Do, H. N. T. (2020). An investigation of Generation Z's Intention to use Electronic Wallet in Vietnam. *Journal of Distribution Science*. doi:10.15722/jds.18.10.202010.89
- Fahad, & Shahid, M. (2022). Exploring the determinants of adoption of Unified Payment Interface (UPI) in India: A study based on diffusion of innovation theory. *Digital Business*, 2(2). doi:10.1016/j.digbus.2022.100040
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to design and evaluate research in education (8th Ed.). New York: Mc Graw Hill.
- Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM Statistik SPSS 26* (10th Ed.). Semarang: Badan Penerbit Universitas Diponegoro.
- Google Play Store. (2024). *Ulasan Pengguna E-Wallet DANA*. Retrieved Desember 2024, from Updated: <https://play.google.com/store/apps/details?id=id.dana&hl=id&pli=1>
- Hariani, D., Nurcahyanto, H., & Adipurnawati, D. (2019). Relative Advantage dalam Inovasi Laporan Hendi di Kota Semarang. *Conference on Public Administration and Society*. 1, pp. 440-452. Semarang: Universitas Diponegoro.
- Hidayat, A. R. (2023). Analisis Adopsi Penggunaan Sistem Pembayaran Fintech pada Generasi Milenial Menggunakan Teori Difusi Inovasi. *Jurnal Ilmu Manajemen*, 13(1), 117-132. doi:10.32502/jimn.v13i2.6974
- Husain, T. (2019). An Analysis of Modeling Audit Quality Measurement Based on Decision Support Systems (DSS). *European Journal of Scientific Exploration*, 2(6), 1-9.
- Indriyati, R. N., & Aisyah, M. N. (2019). Determinan Minat Individu Menggunakan Layanan Financial Technology dengan Kerangka Innovation Diffusion Theory. *Nominal: Barometer Riset Akuntansi Dan Manajemen*, 8(2), 209-223. doi:10.21831/nominal.v8i2.26660
- Jatmiko, M. H., & Imronudin, I. (2023). Pengaruh Relative Advantage, Compatibility, Complexity, Observability Dan Trialability Terhadap Intention To Use Pada E-Wallet Dana. *Jurnal Lentera Bisnis*, 12(2), 538. doi:10.34127/jrlab.v12i2.780
- Katiya, R. A., & Rikumahu, B. (2022). Analisis Minat Penggunaan Fitur Paylater Sebagai Media Pembayaran Online (Fintech) Menggunakan Diffusion Of Innovation Theory. *SEIKO: Journal of Management & Business*, 4(3), 324-336. doi:10.37531/sejaman.v4i3.2601
- Latip, A. E., Suparman, A., & Nadiroh. (2021). *DIFUSI INOVASI PEMBELAJARAN TEMATIK*. UNJ PRESS. [https://repository.uinjkt.ac.id/dspace/bitstream/123456789/56283/1/2021-06-03-P0517_BUKU_ASEP_DIFUSI_INOVASI_PEMBELAJARAN TEMATIK-dikonversi-digabungkan.pdf](https://repository.uinjkt.ac.id/dspace/bitstream/123456789/56283/1/2021-06-03-P0517_BUKU_ASEP_DIFUSI_INOVASI_PEMBELAJARAN_TEMATIK-dikonversi-digabungkan.pdf)
- Nasution, S. U. A., & Nasution, S. P. W. (2023). The Determinants Factor on Repurchase Intentions: A Study from Developing Economies. *International Journal of Management Science and Application*, 2(2), 87-107. doi:10.58291/ijmsa.v2i2.216
- Nawi, N. C., Husin, H. S., Said Al-Jahwari, N., Zainuddin, S. A., Khan, N. U., Hassan, A. A., Wan Ibrahim, W. S. A. A., Mohamed, A. F., Mohd Nasir, N. S., & Muhamad Hasan, M. Z. (2024). The path to sustainability begins with going paperless: Antecedents of intention to use electronic wallet using serial mediation approach. *Heliyon*, 10(2), e24127. doi:10.1016/j.heliyon.2024.e24127
- Populix. (2024). *Consumer Preference Towards Banking and E-Wallet Apps*. (PT Populix Informasi Teknologi) Retrieved from <https://info.populix.co/articles/report/digital-banking-survey/>
- Pynnönen, S., Haltia, E., & Hujala, T. (2021). Digital forest information platform as service innovation: Finnish Metsaan.fi service use, users and utilisation. *Forest Policy and Economics*, 125, 102404. doi:10.1016/j.forpol.2021.102404
- Reynaldy, B. (2024, Juli 24). 96% Masyarakat Indonesia Sudah Menggunakan E-Wallet. Retrieved Nopember 2024, from GoodStats: <https://data.goodstats.id/statistic/96-masyarakat-indonesia-sudah-menggunakan-e-wallet-itxIc>

- Rianti, B. P. D., & Rikumahu, B. (2020). Determinan Minat Individu Menggunakan Layanan Financial Technology Linkaja Dengan Kerangka Innovation Diffusion Theory. *Jurnal Mitra Manajemen*, 4(6), 951-966. doi:10.52160/ejmm.v4i6.407
- Riyanto, S., & Hatmawan, A. (2020). *Metode Riset Penelitian Kuantitatif Penelitian di Bidang Manajemen, Teknik Pendidikan dan Eksperimen*. Yogyakarta: CV Budi Utama.
- Rogers, E., & Williams, D. (1983). *Diffusion of Innovations* (3rd Ed.). New York: Macmillan Publishing Co., Inc.
- Saragih, H., & Husain, T. (2012). Pengaruh Fitur-Fitur Blog terhadap Continuance Intention to Visit Blogs pada Toko Online Multiply. *Journal of Computer Information*, 1(1), 5-18.
- Scuderia, A. M. (2024, November 8). *Preferensi Mobile Banking dan E-Wallet di Kalangan Generasi Muda*. Retrieved Desember 2024, from Goodstats: <https://goodstats.id/article/preferensi-mobile-banking-dan-e-wallet-di-kalangan-generasi-muda-OrBZG>
- Shantika, N. R., Ardiatama, A. L., Oktania Purwaningrum, Putra, Y. Y., & Syafira, A. O. (2022). Analisis Adopsi Inovasi Teknologi Informasi Dompot Digital DANA Menggunakan Innovation-Diffusion Theory (IDT). *Jurnal Information System & Artificial Intelligence*, 2(2), 1-8. doi:10.26486/jisai.v2i2.80
- Sugiyono. (2023). *Metode Penelitian Kombinasi (Mixed Methods) dengan 9 Desain* (2nd Ed., Vol. 2). Bandung: Alfabeta.
- Supranto, J., & Limakrisna, N. (2019). *Petunjuk Praktis Penelitian Ilmiah untuk Menyusun Skripsi, Tesis dan Disertasi* (5th Ed.). Bogor: Penerbit Mitra Wacana Media.
- Suryafma, Y., Haryadi, A. D., & Afni, Z. (2023). Penerapan Innovation Diffusion Theory terhadap Niat Mengadopsi Fintech Peer to Peer Lending. *Jurnal Akuntansi, Bisnis Dan Ekonomi Indonesia (JABEI)*, 2(1), 1-12. doi:10.30630/jabei.v2i1.50
- Sutisna, N., Muhaemin, M., & Ramadhan, A. (2022). Difusi Inovasi Aplikasi Siputeri dalam Meningkatkan Pelayanan Informasi Publik di Pemerintah Kabupaten Pandeglang. *Jurnal Ilmu Politik Dan Pemerintahan*, 8(2), 62-77. doi:10.37058/jipp.v8i2.5746
- Syarifah, Winarno, W. W., & Putro, H. P. (2020). Analisis Karakteristik Penggunaan Aplikasi Peer To Peer Lending Fintech dengan Model PCI. *Jurnal Media Informatika Budidarma*, 4(2). doi:10.30865/mib.v4i2.2059
- Wibowo, I. T. (2019). Proses Difusi Inovasi Program Sistem Aplikasi Keuangan Tingkat Instansi (Sakti): Studi Kasus pada Ditjen Perbendaharaan di D.I. Yogyakarta Tahun 2018. *Jurnal Perbendaharaan, Keuangan Negara dan Kebijakan Publik*, 4(4), 323-337. doi:10.33105/itrev.v4i4.139
- Winarti, Y., Sarkum, S., & Halim, A. (2021). Product Innovation on Customer Satisfaction and Brand Loyalty of Smartphone Users. *Journal of Applied Business Administration*, 5(2), 179-187. doi:10.30871/jaba.v5i2.3166
- Wiratno, W. E. (2020). Analisis Adopsi Aplikasi Uang Elektronik melalui Pendekatan Teori Difusi Inovasi (Studi terhadap Pengguna Aplikasi Uang Elektronik DANA di Kota Malang). *Jurnal Ekonomi dan Bisnis*, 9(1), 155-177.