Exploring Key Factors Influencing Digital Payment Continuance: Digital Financial Literacy, Security Behavior and UTAUT

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Abstract
The rapid growth of digital payment adoption has been accompanied by increasing concerns over transaction security risks, which can lead to both financial and non-financial losses for users. Addressing this issue, the present study investigates the determinants of continuance intention in digital payment usage, emphasizing the roles of digital financial literacy (DFL), online security behaviour (OSB), and the constructs from the Unified Theory of Acceptance and Use of Technology (UTAUT). Using a quantitative research design, data were collected from 449 digital payment users using snowball sampling. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that online security behaviour, performance expectancy, social influence, and facilitating conditions have a significant positive effect on users' intention to continue using digital payment services. These findings highlight the importance of user capabilities and perceptions in ensuring the sustainable adoption of digital financial services.

INTRODUCTION

The rapid development of technology has brought significant changes in various aspects of human life, including in the financial sector. Innovation in the field of technology and finance or often called fintech is one of the tangible forms of digital transformation. According to Bank Indonesia, Fintech is a technology-based financial services platform that includes electronic money services and online payment systems that can encourage increased digital economic activity and financial inclusion (Bank Indonesia, 2021). One form of this digital financial product is digital payment (Morgan et al., 2019). Digital payment is a transaction method that allows transactions to be made without the physical use of cash, but rather through digital media (Chauhan & Sharma, 2024). This platform is the most frequently used digital financial services globally which consists of various types of services such as the

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mobile money account, card payments, mobile phone or the internet payment and many more (World Bank Group, 2021b)

The growth of digital payments globally was going massively after the COVID-19 pandemic, which supported public's technological adoption. It can be seen from global data on adults using digital payments that 1/3 of them started doing it for the first time during COVID-19 (World Bank Group, 2021). A study reveals that pandemic COVID-19 and related lockdowns policies has improved the number of digital payment apps download for 270 million app downloads which was equal to 30% of incremental (OECD, 2021). The same phenomenon happens in Southeast Asia, especially Indonesia. Pandemic conditions and lockdown policies encouraged people to reduce physical interaction with others. In order to cope with the situation, online activities were merely accepted and significantly increasing, including people's preference for their financial transactions. At that period, Indonesia became the top three country with the most significant active user growth for mobile payments during the pandemic, with a rate of growth 44% (e-Conomy SEA, 2020)

The digital payment utilization in Indonesia continually grows. In 2024, Indonesia experienced an increase in gross transaction value from digital payments by 19% y-o-y, with a transaction value of 404 billion USD (E-Conomy SEA 2024 Country Overview Indonesia, 2024). This figure confirms the great potential of digital payments in driving digital economic transformation in Indonesia. For this reason, the continuance use of digital payments is important to continue to support Indonesia's progress towards a more massive digital economy. Additionally, maintaining continuous utilization of the platform become the crucial part for the service provider. Abbasi et al (2022) explains the continuous use of digital payments could determine the successful of a platform because the cost required to maintain existing customers is more efficient than finding new customers, which costs 5x more.

`Behind the desire to keep advancing and continuing digital payment as a means of digital transactions, the implementation of digital payment still faces many challenges especially in the aspect of security (World Bank Group, 2023). Unlike cash, digital payment transactions enable payment service providers to capture consumers' data. This digitization process can threaten consumers' privacy rights if not accompanied by adequate controls (The World Bank, 2022). Furthermore, for the next ten years the global losses from digital payments in the form of card fraud are expected to reach $400 billion and incremental of authorized push payment fraud is expected to reach 11 percent per year from 2023 to 2027 (Bruno et al., 2024). Moreover, GSMA (2025) reveals that even though the level of digital payment adoption in Indonesia is relatively high at 91%, consumer concerns regarding financial data protection remain strong. Besides that, the study also reveals that more than 60% of Indonesian digital payment consumers express concern over the security of their data, and nearly 75% of users claim they are willing to switch to other financial service providers to achieve higher security levels. Such circumstances clarify that security and privacy protection are the issues that still need to be watched over in maintaining the continuance or sustainability of Indonesia's digital payment ecosystem.

In order to cope with these issues, users need to be wise and having the proper capability to understand and use the digital financial services (Lyons & Kass-Hanna, 2021). Users are expected to have the skills, attitudes, and behaviors to use digital financial services safely and wisely to obtain financial well-being, or known as digital financial literacy (OECD, 2022). Morgan (2019) states that there are at least four components of digital financial literacy, consisting of a comprehensive understanding of digital financial service products and their risks, an understanding of digital financial product risk control, as well as an understanding of consumer rights and handling procedures if unexpected risks befall users.

In addition to obtain a safe digital environment to protect user digital financial information in digital payment, users need to take action to prevent unwanted risk and threat of unsecure digital environment. It can be achieved by maintaining data security and privacy when doing digital activities which is known as online security behavior (Nguyen et al., 2024). According to Sindermann (2021), online security behavior is an attitude and real actions taken by users to protect personal data from interference and unwanted information disclosure when doing activities in the digital world. Young & Quan Haase (2013) define online security behavior as a perception of privacy and a series of actions taken by users to protect data and personal information from the threat of network security violations. This action is more than just knowledge and awareness; it emphasizes behavioral implementation (Bognár & Bottyán, 2024). However, much of people do not display relevant attitudes when they surf in the digital world, and this phenomenon are called as the privacy paradox (Sindermann et al., 2021). Only a few people are aware of their online security behavior and ability to know which actions are risky or not. Additionally, many people fail to implement recommendations or advice on safety given to them, which ultimately leads to unsafe online activity and vulnerability to cyber-attacks (Rodriguez).

Besides of preparing digital payment user with digital financial literacy and online security behavior, there are other factors that determine users' intentions in using digital payments. These factors are described through the Unified Theory of Acceptance and Use of Technology (UTAUT), a framework for explaining person's behavioral intention to use technology (Venkatesh et al., 2002). The theory states that four main factors influence behavioral intention toward technology: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2002) . These factors provide a strong framework for analyzing how users accept and continue to use technology by explaining about 70% of the variance in behavioral intention (Santosa et al., 2021). This can be seen in previous research conducted by Tomic (2023) and Santosa (2021) research.

Based on the description above, this research come to analyse determinants factors influencing the continuance intention of digital payment utilization. Using a more comprehensive construct, this research integrates aspects of digital financial literacy, online security behavior, and factors in the UTAUT theory that can assess from many points of view, namely through expectations attributed to technology (performance expectancy and effort expectancy), external user conditions (social influence and facilitating conditions) and internal user conditions through digital financial literacy and online security behavior. This model is expected to illustrate how they can influence users' decisions and intentions in maintaining the use of this technology.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This section provides a comprehensive discussion of Digital Financial Literacy (DFL), Online Security Behavior (OSB), and the Unified Theory of Acceptance and Use of Technology (UTAUT). It explains how these constructs are theoretically and empirically related to continuance intention in digital payment usage. Understanding continuance intention is essential, as sustained use—rather than initial adoption—determines the long-term success and stability of digital payment ecosystems. Prior studies suggest that continuance intention is influenced not only by technological characteristics but also by users' internal capabilities and behavioral readiness in managing digital financial services (Bhattacherjee, 2001; Venkatesh et al., 2003).

Digital Financial Literacy refers to an individual's ability to understand, evaluate, and effectively use digital financial products while managing associated risks (OECD, 2020). Higher levels of DFL enable users to make informed decisions, increase confidence in digital financial services, and reduce perceived uncertainty when conducting transactions (Lyons & Kass-Hanna, 2021). Alongside literacy, Online Security Behavior represents proactive actions taken by users to protect personal and financial data in digital environments, such as using strong authentication, safeguarding credentials, and recognizing cyber threats (Sindermann et al., 2021). Previous studies show that strong security behavior enhances trust and reduces perceived risk, thereby supporting sustained technology usage (Nguyen et al., 2024). Meanwhile, UTAUT explains technology acceptance and use through key constructs including performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). While UTAUT has been widely applied to study digital payment adoption, its integration with DFL and OSB remains limited, particularly in explaining post-adoption behavior. Therefore, combining UTAUT with users' financial literacy and security behavior provides a more holistic framework for understanding continuance intention in digital payment utilization.

Digital financial literacy on continuance intention of digital payment utilization

Digital financial literacy encompasses the ability to manage and handle potential hazards while utilizing digital financial services and knowledge and awareness of financial goods and their risk (Morgan et al., 2019). According to Lyons and Kass-Hana (2021) digital financial literacy is an assortment of financial literacy, digital literacy, and knowledge of digital financial products. Additionally, OECD (2022)describe this concept as a combination of knowledge, skills, and behaviors require by individuals to use digital financial technology services safely.

In the studies related to continuance intention of digital payment utilization, there are limitations in research that use digital financial literacy as a predictor in the post-adoption period. One such study conducted by Siswanti (2023) shows that digital financial literacy has a significant influence, indicating in order to use digital payments effectively, user must understand the benefits and risks of digital payments. Consistently, Hidayani (2023) and Chaisarani (2025) revealed that the higher an individual's level of digital financial literacy, the higher their intention to use digital payment services. However, Saxena (2024) found non-significant results in a study conducted in another country, India. He further explained that, the result occur due to the level of digital financial literacy is very broad and diverse and cannot be compared. Therefore, the differences in the digital financial literacy levels of the respondents are suspected to be the cause of the differences in his research results. Seeing the different result among studies, as well as the limitations of variety in similar studies regarding its influence in the post-adoption period of digital payments, this study aims to examine in greater depth the influence of digital financial literacy on continuance intention in digital payment utilization. The hypothesis propose in this study is

H1: Digital financial literacy significantly affects continuance intention of digital payment utilization.

Online security behavior on continuance intention of digital payment utilization

Security is one of concern in the internet-based electronic payment systems due to their vulnerability to threats such as phishing, data theft, and fraudulent activities. Research by Laksamana et al. (2022) shows that user satisfaction with digital payment services increases if they believe that the system can provide security in every transaction. However, the security control aspect cannot only be left entirely to the application provider and regulator but also requires contribution from the user side to implement the security behavior (World Bank Group, 2023)

Online security or privacy control behavior reflects how users can manage access to personal information and data when engaging in digital environment (Sindermann et al., 2021). Awareness and active engagement toward security behavior can improve the security of transaction and further strengthen consumer trust in digital transaction (Laksamana et al., 2022). Furthermore, Nguyen et al. (2024) explain that online security behaviors significantly influence user intention for continuance use of digital payment. This study suggests that the higher users understand and implement online security behavior, the greater their likelihood of using digital payments.

Furthermore, Doghan et al (2024) reveals that fintech companies can create a more secure environment that promotes adoption and trust by raising user's awareness and comprehension of online security. So, based on the prior explanations, this study formulates the following hypothesis to examine further the relationship of online security behavior to the continuance intention of digital payment utilization, the hypothesis is:

H2: Online security behavior significantly affects the continuance intention of digital payment utilization.

Performance expectancy on continuance intention of digital payment utilization

Performance expectancy refers to consumers' belief that specific innovations will improve their work performance (Santosa et al., 2021). According to the prior researches related to the continuance intention of digital payments utilization, performance expectations play an important role in influencing users' intentions and behaviors to continue using the technology (Indrawati & Putri, 2018; Istijanto & Handoko, 2022; Ly et al., 2022; Santosa et al., 2021; Sleiman et al., 2022). Research conducted by Sleiman (2022) shows that performance expectancy significantly affects continuance intention of digital payments utilization and confirms that perceptions of technological benefits play an important role in the continued use of more complex technologies. Similarly, Santosa (2021) indicating cognitive and functional benefits users perceive from digital payments are the primary considerations in their decisions to continually using the platform. Part of performance support which come from practical, time saving, safety, and productivity offers by digital payment become main factor of people to continue using this technology (Putri et al., 2020).

Furthermore, during COVID-19 performance expectations toward digital payment become the reason in influencing user's continuance intention of digital payment utilization because this technology benefits the users in doing contactless transaction as it the needed for preventing the spread of COVID-19. Previous researches analyzing performance expectations for digital payment adoption also showed similar results as them conducted by Bailey's (2022) and Lee's (2019). Based on the description in the findings above, the hypotheses formulated are:

H3: Performance expectancy significantly affects the continuance intention of digital payment utilization.

Effort expectancy on continuance intention of digital payment utilization

Effort expectancy refers to the extent to which individuals believe that the using a system wont require a lot of effort (Venkatesh et al., 2012). Previous studies have explored effort expectancy's role in affecting users' intention to adopt or continue using the digital payments. Sleiman's (2022) research shows that effort expectancy positively influences continuance intention. He indicates that when users find technology effortless to use, they are more inclined and motivated to keep using it. Similarly, on a study conducted in a rural area of India the same result is obtained. Laksamanan & Shanmugavel (2025) indicates the ease of rural consumer in operating the digital payment influence their intention to continually use this technology.

However, some of studies related to effort expectancy and continuance use of digital payment represent the contradicting results. Research conducted by Indrawati (2018) explaining this result are caused by the effect of respondents background whose most of them are young individuals who are considered as a bold group with little concern about taking risks in adopting new technology, therefore the effort required to operate the digital payment was not their big concern for continuing the adoption. This finding is reinforced by Hutabarat et al (2021) explaining size of effort expended by users doesn't significantly influence their willingness to continuously use digital payment platform in the future. Additionally, Bernika et al (2022) indicating the insignificant effect of effort expectancy toward continuance intention to use digital payment happen due to whether the cash or cashless transactions, both of them is considered as transaction that is simple to do and do not take convenience into account.

In specific situation such as COVID 19, some studies also found insignificant influence of effort expectancy for continuance intention to use the digital payment. Istijanto & Handoko (2022) found that effort expectations were not found to influence users' intentions to continue using digital payments during pandemic because during the period users prioritize safety and self-protection, even if the application is not user-friendly. Additionally, during the pandemic in Vietnam, respondents used digital payments not because of the considerations of size of effort required to conduct transactions through digital payment but rather as a requirement to comply with pandemic policies (Ly et al., 2022). Based on the description in the findings above, the hypotheses formulated are:

H4: Effort expectancy significantly affect continuance intention on digital payment Utilization.

Social influence on continuance intention of digital payment utilization

Social influence refers to the level to which individuals consider other's views on how a technology should be used (Sleiman et al., 2022) Some studies show that social influence is important in shaping a person's intention to use or continue digital payments. In a study conducted by Sleiman (2022), it was found that social influence significantly influences Sudanese people's desire to continue using digital payment. He explains that recommendations and opinions from individuals who are considered important in the user's life are proven to be able to encourage technology adoption, which reflects the power of influence from the immediate social environment. Similarly,

Santosa (2021) founds the same result on study of digital payment among baby boomers and younger generations in Indonesia. He explains this finding is associated with Indonesian culture, who tends to trust and follow people in their social circle; the more individuals around them who use digital payments, the higher their tendency to use them (Santosa et al., 2021). The finding is reinforced by studies conducted by Lu (2017), Hutabarat (2021) ,Bernika et al (2022) and Nurdin et al (2023) indicating the effect of social influence does not fade even after users are no longer in the early adoption stage.

Although most findings show a positive influence, research conducted by Huyn et al (2022) shows a contradict results. He indicates that, the difference is expected to appears because influence of specific circumstance of COVID-19, whereas government required people to use of digital payments in order to prevent risk of pandemic transmission. Consequently, Putri et al (2019) also discover that social influence has minimal impact toward continuance intention for digital payment utilization, and demonstrating that if people are already proficient with technology, they may be less aware of social and environmental support. Based on the description in the findings above, the hypotheses formulated are:

H5: Social influence positively influences continuance intention on digital payment utilization

Facilitating condition on continuance intention of digital payment utilization

Facilitating conditions defines as the degree of technical support and resource available to facilitate system utilization (Venkatesh et al., 2002). Several studies show that adequate infrastructure and technical support are important factors in encouraging the continued use of digital payments. Santosa et al (2021) found that facilitating conditions significantly influence the continued use of digital payments. They further explain access to compatible devices such as smartphones and a stable internet connection is important to ensure smooth digital transactions. The better the quality of facilitating conditions, the higher the level of user satisfaction and willingness to continue using digital payments. This result is reinforced by Putri et al (2020) asserts that user intents to use mobile payments were significantly impacted by the availability of resources required to execute transactions using mobile payments, such as the required expertise, a smartphone with internet access, and a mobile network with fast network speeds. Similarly, Istijanto& Handoko's (2022) explaining if users are supported with appropriate external support to conduct digital payment's transaction, it can create an adequate user experience and result to high intention on continuance use of digital payment.

Contrary, Indrawati (2018) and Hutabarat et al (2021) found different results, namely that facilitating conditions do not influence the intention to continue using digital payments. They explain this result occur due to the digital payment user have already had the necessary devices and access to operate them, so it doesn't make a significant influence. Based on the description in the findings above, the hypotheses formulated are:

H6: Facilitating conditions positively influence the continuance intention of digital payment utilization

RESEARCH METODHOLOGY

This research uses a systematic quantitative approach to statistically assess the effect of digital financial literacy, online security behavior, and variables in the UTAUT theory on continuance intention in using digital payments. Using the explanatory approach, this research aims to explain the cause-and-effect relationship between variables and test the effect of independent variables on dependent variables (Sekaran & Bougie, 2016). The variables in this study were measured using a 5-point Likert scale. The constructs for each variable were derived from previous studies with some modifications. The constructs for digital financial literacy are derived OECD (2022), Online security behavior are derived from the study conducted by Bognar & Bottyan (2024) , constructs for performance expectancy was taken from research conducted by Istijanto (2022) and Arianita et al (2023), effort expectancy was sourced from research conducted by Hutabarat et al (2021), social influence referred to the construct proposed by Istijanto (2022), and the constructs of facilitating conditions referred to research conducted by Sleiman et al. (2022). Constructs on independent variables were taken from research conducted by Kumari & Biswas (2024).

In order to collect the data, this research use survey method which was conducted online by distributing questionnaires via social media platforms, namely Instagram, TikTok, WhatsApp, and Facebook. These platforms were selected for their high penetration and widespread use among digital payment users in Indonesia, particularly among younger and economically active populations. Instagram and TikTok were utilized to reach users with high digital engagement, while WhatsApp and Facebook were used to facilitate broader dissemination across personal networks and community groups. Data collection period was conducted from February – May 2025, using snowball sampling method, this research obtained 449 samples of respondents. The data is then analyzed using the structural equation model partial least square (SEM PLS) to comprehensively capture the relationships between variables (Hair et al., 2022).

RESULT AND DISCUSSION
Descriptive Analysis Result

Primary data processed in this study obtaining from 449 respondents who had already fulfill the online questionnaire. The more description of respondents is represented through the table 1.

Table 1 - Respondent's Demographic

Characteristics	Demographic profile	Frequency	%
Gender	Male	179	40%
	Female	270	60%
Last education background	Senior high school	247	55%
	Undergraduate	170	38%
	Diploma	23	5%
	Post graduate	9	2%
Ages	< 28 years old	382	85.1%
	29 – 44 years old	35	7,8%
	45 – 60 years old	31	6,9%
	>60 years old	1	0,2%
Occupations	Students	323	71,9%
	Civil servants/S.O. E employee	45	10%
	Private sector employee	42	9,4%
	Entrepreneur	20	4,5%
	Unemployment	19	4,2%
Location of Domicile	Capital city of province	243	54%
	Capital city of regency/middle city	141	31%
	Village	53	12%
	Remote village	4	1%
	Others	8	2%
Provinces of domicile	West Sumatera	317	70,6%
	DKI Jakarta	18	4%
	West Java	17	3,8%
	North Sumatera	13	2,9%
	Riau	16	3,6%
	Other provinces	68	15,1%
Average monthly income	Rp. 0 – Rp. 1.000.000	105	23,4%
	Rp. 1.000.001 – Rp. 2.500.000	195	43,4%
	Rp. 2.500.001 – Rp. 5.000.000	93	20,7%
	Rp. 5.000.001 – Rp. 7.500.000	33	7,3%
	Rp. 7.500.001 – Rp. 10.000.000	12	2,7%
	More than Rp. 10.000.000	11	2,4%
Average monthly expenditure	Rp. 0 – Rp. 1.000.000	132	29,4%
	Rp. 1.000.001 – Rp. 2.500.000	185	41,2%
	Rp. 2.500.001 – Rp. 5.000.000	99	22%
	Rp. 5.000.001 – Rp. 7.500.000	21	4,7%
	Rp. 7.500.001 – Rp. 10.000.000	7	1,6%
	More than Rp. 10.000.000	5	1,1%
Frequency of digital payment utilization	Everyday	180	40%
	Several times a week	199	44%
	Several times a month	45	10%
	Rarely used	25	6%
Type of digital payment platform use by respondents	E-wallet	243	-
	Mobile banking	373	-
	QRIS	345	-
	E-money	84	-
	Other platforms	13	-

Source: Data Processed (2025)

Data Analysis using Structural Equation Modelling- Partial Least Square
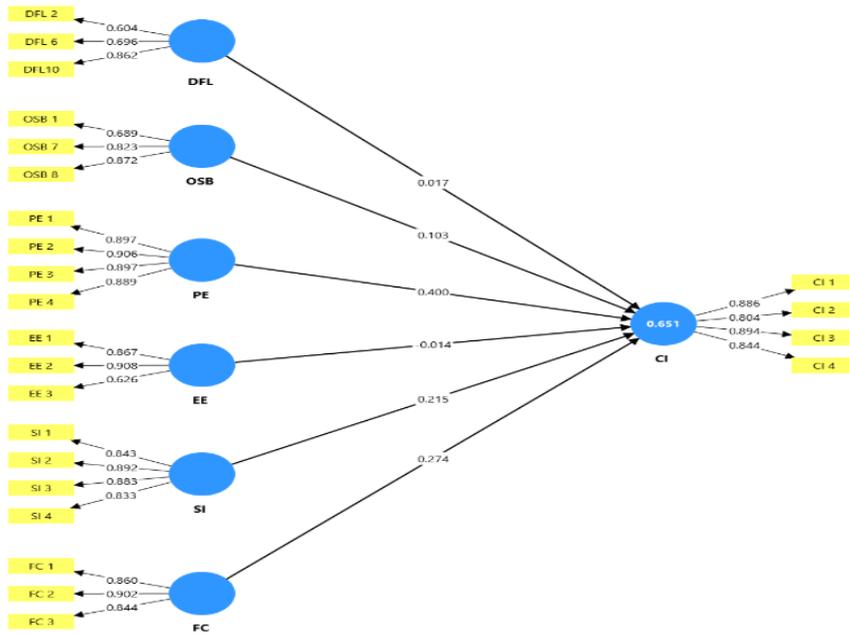

Figure 1 - Outer Model Analysis

In this model, digital financial literacy, online security behavior, and UTAUT's factors consisting performance expectancy, effort expectancy, social influence, and facilitating condition are the exogenous variables that influence the continuous intention of digital payment utilization (CI). Several tests are conducted to analysis the appropriateness of indicators. It begins with, convergent validity test through outer loading analysis. When an indicator's outer loading value exceeds 0,05 it is classified to have good convergent validity (Hinton et al., 2004). Examining the data, it can be drawn that no variables indicator produces an outer loading value lower than 0,05. Each of them is approved to be applied in research.

In addition to the outer loadings value, convergent validity value gets formed using the average variable extract (AVE) value of associated with every indicator, nonetheless the AVE value is required to be greater than 0,05 in order to develop a good model (Hinton et al., 2004). The AVE for the continuance intention of digital payment utilization, digital financial literacy, online security behavior, performance expectancy, effort expectancy, social influence, and facilitating condition is greater than 0,05 as shown by the test result. As a consequence, each variable has a good convergent.

Next to convergent validity, each indicator is tested through discriminant validity test. Discriminant validity describes how much the variables built are different from other variables that have been statistically tested and have a strong relationship with their own indicators. In this study, discriminant validity can be seen using the Heterotrait Monotrait Ratio (HTMT) value, cross-loading, and the Fornell-Lacker Criterion. It can be deemed acceptable in HTMT value if the HTMT value falls below 0,90 (Hair et al., 2022). According to the result it can be drawn all indicators have a good discriminant validity. Conversely, under the cross-loading value, when the magnitude of the indicator is larger than the aggregate number of other constructs (Hair et al., 2022). Based on the test result, all indicators indicate a good discriminant validity. Then, the fornell-lacker criterion is deem acceptable when the indicator has the higher value than the others in the same

column (Hair et al., 2022). Based on the test result, all indicators are considered having good discriminant validity.

Reliability test of each indicator includes Cronbach's alpha and composite reliability scores to test variables in reliability testing. If a variable's alpha value is greater than 0,5 in Cronbach's alpha and composite reliability score exceeds 0,6, they are deemed reliable (Hinton et al., 2004). Based on the reliability test results using Cronbach's alpha, all indicators met the criteria and were reliable. Furthermore, in testing the indicators using composite reliability, the composite reliability of each indicator is more than 0,7, indicating the indicators in this study have good reliability.

The structural or inner model is determined through R-squared value and the significance value to assess the degree of influence between variables (Hamid & Anwar, 2019). From the structural model test table above, the r-square value of continuance intention of digital payment utilization is 0.651, which is pretty high. These results explain that 65.1% of continuance intention on digital payment utilization is influenced by digital financial literacy, online security behavior, and factors in output theory, namely performance expectancy, effort expectancy, social influence, and facilitating conditions. In comparison, 34.9% is impacted by external factors that were excluded in this study.

In order to evaluate research ideas and decide which ones to accept or reject, Smart PLS is employed. The hypothesis can be accepted if the p-value is less than 0.05 and the path coefficient t-value is greater than 1.96 (Ghozali & Latan, 2015). According to Table 2, the accepted hypotheses are as follows: online security behavior, performance expectancy, social influence, and facilitating condition.
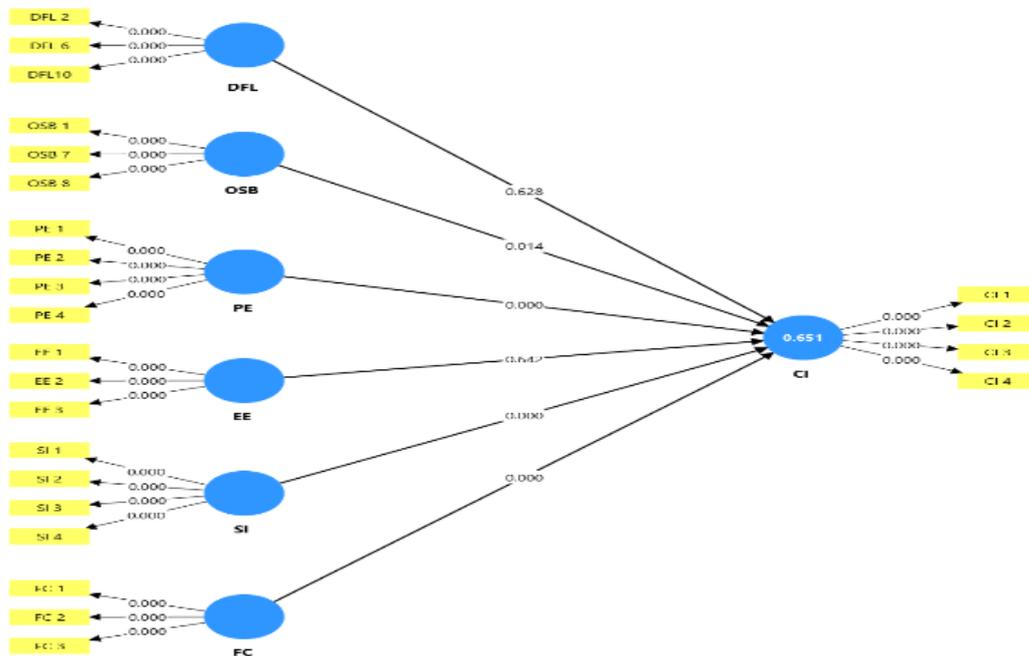

Figure 2 Inner model analysis

Table 2 – Hypothesis testing

Hypothesis		t-value	p-value	Results
Digital Financial Literacy → Continuance intention on digital payment utilization	H1	.484	.628	Rejected
Online security behavior → Continuance intention on digital payment utilization	H2	2.471	.014	Accepted
Performance expectancy → Continuance intention on digital payment utilization	H3	9.014	.000	Accepted
Effort expectancy → Continuance intention on digital payment utilization	H4	.465	.642	Rejected
Social Influence → Continuance intention on digital payment utilization	H5	6.166	.000	Accepted
Facilitating condition → Continuance intention on digital payment utilization	H6	5.334	.000	Accepted

Source: Data Processed (2025)

Digital financial literacy on continuance intention of digital payment utilization

According to the outcomes of the hypothesis test, digital financial literacy does not significantly affect the continuance intention of digital payment utilization. Despite the impact of digital financial literacy on an intention to continue using digital payments has not been extensively studied, there are parallel studies that look at behavioral intention but only focuses at the digital payment usage. This finding is consistent with research by Saxena (2024), who found that the level of digital financial literacy does not significantly influence behavioral intention to use digital payments. However, the study conducted by Chaisarani (2025) found different results, still, in the context of the early uptake of and utilization of digital payments. She discovered that behavioral intention is strongly influenced by digital financial literacy. In line with Chaisarani (2025), Siswanti (2023) confirmed that the utilization of digital payment is greatly impacted by digital financial literacy.

The variation of result could be explained by the fact that the respondents already had appropriate level of digital financial literacy. The majority of responders (82.4%) already possessed strong digital financial literacy; therefore, their good literacy levels are no longer a determining factor in affecting their intention to continue using digital payment. In addition, the difference in focus of the study on the post-adoption phase may have contributed to the differences in the research results. Therefore, the findings of this study add to the variety of research on digital financial literacy and how it affects post-adoption behavioral intention among digital payment users.

Online security behaviour on continuance intention of digital payment utilization

Based on the results of hypothesis testing in this study, online security behavior significantly affects the continuance intention to utilize digital payment. These findings align with prior study conducted by Nguyen et al (2024), explaining the individuals who effectively protect their privacy and personal data are likelier to perceive lower security risks associated with digital payments, thereby choosing to continue using e-payments (Nguyen, 2024). This finding is reinforced by result of study from Limna (2017) that assert online security behaviour positively influences the usage intention of digital payment users because individuals feel in control of protecting their digital assets are more inclined to use the platform services securely.

Additionally, by enhancing users' understanding of regarding online security awareness and understanding, financial technology as digital payment can build a more secure environment that fosters trust and encourages adoption (Al Doghan & Mirzaliev, 2024). The characteristics of the respondents is contributed for of the significance of these research findings, whereas the majority of whom are Gen Z (85.1%) within good online security behaviour. This study provides new insights into research related to the digital payments, particularly in the security field, where security is no longer solely rely on the provider of technology but responsibility also determined by users through their online security behavior.

Performance expectancy on continuance intention of digital payment utilization

Considering the outcome of hypothesis testing, performance expectancy significantly affects the continuance intention of digital payment utilization with the highest significance level among other variables in influencing continuance intention. This implies that the expectation that digital payments will help respondents perform better is the primary determinant in determining the intention to keep using digital payments. Upon further review, the overall level of respondents performance expectancy toward digital payments is excellent, at 90%.

This finding is consistent with prior studies that found performance expectancy significantly influence continuance intention of digital payment utilization (Istijanto & Handoko, 2022; Ly et al., 2022; Santosa et al., 2021; Sleiman et al., 2022). Sleiman (2022) evaluates that performance expectations significantly influence the intention to continue using digital payments. These results confirm that perceptions of technological benefits take a crucial part in the continuance use of more complex technologies; the more complex the technology, the less likely users are to continue using it (Sleiman et al., 2022). Similar findings by Santosa (2021) indicates the cognitive and functional benefits users perceive are the primary considerations in their decisions. Moreover, Istijanto's (2022) research conducted during the COVID-19 pandemic also supports this finding. During the pandemic, performance expectations significantly influenced evaluations of mobile payment usage because this technology helped minimize physical contact during transactions, providing direct benefits to users (Istijanto & Handoko, 2022).

Not only at the stage of continuance digital payment usage, previous research analyzing performance expectations during digital payment adoption also showed similar results. The findings of Bailey's (2022) study in Latin America and Lee's (2019) study in Korea also reinforce this argument. Both studies show that performance expectations significantly influence users' behavioral intentions toward digital payments (Bailey et al., 2022; Lee et al., 2019). Thus, the significant results of the research confirm that performance expectancy still being an important consideration for consumers who want to keep using digital payments, both for the initial adoption stage and throughout continued utilization.

Effort expectancy on continuance intention of digital payment utilization

Based on the results of hypothesis testing, effort expectancy does not significantly affect the continuance intention of digital payment utilization. These results align with prior studies conducted by Indrawati & Putri (2018), Istijanto& Handoko (2022), and Ly et al (2022). Indrawati (2018) evaluates that effort expectancy does not influence behavioral intention toward using digital payments because effort expectancy was not a big or serious issue for the respondents. The characteristic of most of their respondents who are young individuals that are known as a bold group who have little concern about taking risks in adopting new technology, impacting to less concern toward the size of effort sacrifices in operating a technology.

Lee (2019) indicating when a people are really familiar about technology utilization in their daily life, this factor is no longer a driving force for its use. However, Zhang (2020) explaining this result appear because users are now more focused on the usefulness or real benefits, they get from the application than their expectations regarding the effort involved in digital payments (Zhang & Mao, 2020). Conversely, some studies are noted significant impact of effort expectancy for continuance intention of digital payment utilization such as findings obtained by Sleiman's (2022) and Lakshmanan & Shanmugavel (2025) whose studies were focused on digital payment user in rural areas.

Now back to this research, the insignificant result obtained is driven by characteristics of the respondents, who are predominantly Gen Z that are known as digital natives. A study states that gen Z views digital payment as a mature technology, so the effort required to understand the technology is not a significant concern for them (Agárdi & Alt, 2022). Therefore, the results of this study offer valuable insights into showing that when digital payments are used in the post-adoption period by digital native users, effort expectancy may no longer be a determinant of the intention to continue using digital payments.

Social influence on continuance intention of digital payment utilization

Based on the hypothesis testing, social influence significantly affects the continuance intention of digital payment utilization. This finding is consistent with the prior studies conducted by Sleiman (2022) and Santosa (2021) in relation to the continuing usage of digital payment. These results also show consistent result as with research conducted by Dimitrova(2024) and Manrai (2024) on the determinants that affect the intention to adopt digital payment. Sleiman (2022) indicating recommendations and opinions from individuals considered important in the user's life are proven to encourage technology adoption, reflecting the power of influence the immediate social environment. Additionally, in a study conducted for Indonesian customers note that significant social influence on the continuance intention of digital payments appear because the influence of Indonesian cultures, who tend to easily trust and follow people in their social environment (Santosa et al., 2021). The more people around them use digital payments, the higher their tendency to use them.

However, the result of this study is contrary with research conducted by Bailey (2022) and Putri et al (2019) who found the insignificant effects of social influence on adoption and continuance intention of digital payment utilization. Putri et al (2019) explains that if people are already proficient with technology, they may be less aware of social and environmental aspects of support. Despite the variance of result obtained in the prior studies, the significant result in this study are believed because of influence of respondents background who are 70% come from West Sumatra, Indonesia an area with high levels of social solidarity and collectivism (Jannah, 2022) as it support by the general Indonesian culture explains by Santosa (2021) which states culture of Indonesians who tend to easily trust and follow people in their social environment, where the more people around them use digital payments, the

higher their tendency to use them. Thus, based on the descriptions above, it can be concluded that social influence remains a significant predictor of digital payment both in the initial adoption stage and in the continued use stage.

Facilitating conditions on continuance intention of digital payment utilization

Based on the hypothesis testing results, facilitating conditions significantly affect continuance intention on digital payment utilization. These results align with the research conducted by Sleiman (2022), Santosa (2021) , Indrawati (2018) , and Huyn (2022). Santosa (2021) confirm that significant result of study represents that access to compatible devices such as smartphones and a stable internet connection is important to ensure smooth digital transactions, indicating that the better the quality of facilitating conditions, the higher the level of user satisfaction and willingness to continue using digital payments.

Additionally, if users are supported by an integrated system that includes the availability of devices, internet connections, and other supporting infrastructure it will aligns with the need for appropriate external support to create an adequate user experience during the utilization of digital payment (Istijanto & Handoko, 2022). Consequently, this finding is reinforced by Putri et al (2020) who indicates that user intents to use digital payments were significantly impacted by the availability of resources required to execute transactions using mobile payments, such as the required expertise, a smartphone with internet access, and a mobile network with fast network speeds.

Conversely, this finding contradicts with result of research conducted by Indrawati (2018), who found facilitating conditions do not influence the continuance intention of digital payment utilization. The existence of different result could happen due to the background of respondents who are dominantly reside in urban areas such as capital city of province, capital city of a regency, and municipal capitals whose environment are already optimal, having better access to digital infrastructure and a mature digital payment ecosystem. Thus, the availability and reliability of these facilitating conditions are expected to contribute to the intention to continue using digital payments because users have a good experience without significant obstacles

Overall, the results of this study indicate that continuance intention in digital payment utilization is primarily driven by performance expectancy and online security behavior, while digital financial literacy and effort expectancy no longer play a significant role in the post-adoption stage among digitally mature users. These findings imply that as digital payment technologies become more familiar and widely adopted—particularly among Gen Z users—functional value, perceived performance benefits, and users' ability to manage security risks become more critical than ease of use or basic financial knowledge. From a practical perspective, digital payment providers should therefore prioritize enhancing system performance, reliability, and user-perceived value, while simultaneously strengthening user education on online security practices. From a policy standpoint, regulators should complement digital financial literacy initiatives with programs that promote practical cybersecurity awareness to support sustainable digital payment usage. Theoretically, these results reinforce the importance of distinguishing between adoption and post-adoption phases when examining technology use behavior, and highlight the need to integrate user capability and behavioral factors into continuance intention models.

Conclusion, Limitation and Suggestions
Conclusion

This study concludes that performance expectancy is the most influential factor affecting users' continuance intention to use digital payment services in Indonesia. This effect is followed by online security behavior, social influence, and facilitating conditions, indicating that both technological benefits and perceived security play critical roles in sustaining digital payment usage. Conversely, digital financial literacy and effort expectancy were found to have no significant direct effect on continuance intention, suggesting that ease of use and general financial knowledge alone may no longer be decisive once users have passed the initial adoption stage.

The findings contribute to the literature by proposing an integrated model that combines UTAUT factors with digital financial literacy and online security behavior, offering a more holistic explanation of digital payment continuance. This model captures technological expectations, external social and infrastructural support, as well as users' internal readiness. Practically, the results provide valuable insights for digital payment providers and policymakers in designing strategies to enhance trust, security awareness, and the inclusivity of sustainable digital payment transformation in Indonesia's digital economy.

Limitation

Despite its contributions, this study has several limitations. First, the majority of respondents belong to Generation Z and are concentrated in West Sumatra, which may limit the generalizability of the findings across other age groups and regions with different social, cultural, and infrastructural characteristics. Second, the study employed a cross-sectional quantitative design using online questionnaires, which restricts the ability to capture deeper behavioral motivations and contextual nuances behind users' responses. Third, the scope of the study was limited to UTAUT factors, digital financial literacy, and online security behavior, excluding other potentially relevant determinants of continuance intention.

Future Research Suggestion

Future research is encouraged to employ broader and more diverse sampling strategies, both geographically and demographically, to better represent digital payment users across Indonesia. Longitudinal designs could also be adopted to observe changes in continuance intention over time. Additionally, incorporating qualitative approaches, such as interviews or focus group discussions, would help uncover deeper insights into users' perceptions and decision-making processes. Further studies may also extend the proposed model by including additional variables such as habit, trust, satisfaction, and price value, which are likely to provide a more comprehensive understanding of sustainable digital payment usage.

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