

Continuance Intention to Use Digital Banking among Generation Y Users

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Abstract. The adoption of digital banking is expanding rapidly in Indonesia, but its continuance has not been thoroughly examined, specifically among the Generation Y demographic. Therefore, this study aimed to examine the determinants of the continuance intention to use digital banking applications among Generation Y. A method that selectively used constructs from Unified Theory of Acceptance and Use of Technology 3 (UTAUT3) and Technology Continuance Theory (TCT) frameworks was adopted, while also assessing the moderating role of digital literacy. In the context of financial service informatics, intention to continue using digital banking represented the acceptance of technology and also reflected the effectiveness of financial information systems in maintaining user interaction through the quality of digital services, system reliability, and transaction security. Continuance intention was also related to customer retention systems, as repeated use showed the bank's ability to retain customers through safe and responsive service. Based on the perspective of digital financial inclusion, the continuance of digital banking services was crucial to expanding public access to formal financial services and reducing the gap in the use of financial technology. The original contribution of this study was to provide a contribution to digital banking literature by presenting empirical evidence from Generation Y as users of digital banks in Indonesia, showing that personal innovativeness played an important role in shaping use behavior. A quantitative survey method was used to collect 450 valid data points from active users of digital banking services across six of Indonesia's most densely populated areas. Data processing carried out using Structural Equation Modeling (SEM) in AMOS. Empirical evidence showed that system quality was the foremost predictor of continuance intention ($\beta=0.605$), followed by personal innovativeness in use behavior ($\beta=0.543$), and perceived usefulness in influencing continuance intention ($\beta=0.398$). However, behavior intention did not significantly affect actual use behavior, showing a discrepancy between intention and action, referred to as intention-behavior gap phenomenon. Digital literacy moderated the connection between personal innovation and use behavior ($\beta=0.739$) and diminished the impact of income stratification on behavior intention ($\beta=-0.043$). The results of this study have important strategic ramifications for stakeholders in developing digital banking service ecosystems and crafting financial inclusion policies to improve digital literacy.

Keywords: Digital bank, UTAUT3, Technology Continuance Theory, continuance intention to use, digital literacy, Generation Y, SEM-AMOS.

1. Introduction

Indonesia is a country with the fastest digital economy growth in Southeast Asia, projected to reach US\$538 billion in Gross Transaction Value (GTV) by 2025. The e-Conomy SEA report for 2025 shows that the country's digital economy value reaches approximately US\$100 billion, with a growth rate of 14% compared to the previous year (Google Indonesia, 2025). This expansion was driven, among other things, by the transformation of banking industry, characterized by increased use of digital banking services.

Digital banks are Indonesian legal entities that conduct all operations solely through electronic channels, lacking any physical presence outside headquarters (OJK, 2021), and now represent the forefront of paradigm shifts in the financial sector. The development of digital banks, such as SeaBank, Bank Jago, BNC, Hibank, BCA Digital, Allo Bank, and Bank Raya, signifies a substantial transition from traditional banking models to a fully technology-driven financial ecosystem. Data from Bank Indonesia showed that total digital banking transactions in May 2024 amounted to Rp5,570.49 trillion, up 10.82% annually.

Generation Y (born 1981-1996) occupies the most strategically relevant position. As a generation that grew up alongside the era of digitalization, this category of individuals possesses established technological skills and is also the most economically productive age group. The group is not only active users of digital services but also the main drivers of technology adoption in the financial ecosystem. In fact, the challenge for the digital banking industry is to sustain usage among Generation Y.

Previous studies in technology acceptance generally depend on partial methods, with the majority using Unified Theory of Acceptance and Use of Technology (UTAUT) or UTAUT2 to analyze initial usage intention, while post-adoption usage continuance has received relatively less attention. This gap was addressed by Technology Continuance Theory (TCT), developed by Liao, Palvia, and Chen (2009), by integrating TAM, Expectation Confirmation Model (ECM), and Cognitive Model (COGM) into a comprehensive framework. However, studies that simultaneously integrate UTAUT3 and TCT in the context of Indonesian digital banking, particularly among Generation Y, are still very limited.

Contextual factors, including economic level, system quality, and, particularly, digital literacy as a moderating variable, have not been thoroughly examined cohesively. The ability to access, understand, and critically assess digital technology is referred to as digital literacy (Avinç & Doğan, 2024) and may influence the interaction between different predictors, usage intention, and behaviors. This study contributes to the digital banking literature by providing empirical evidence from Generation Y digital bank users in Indonesia, particularly by highlighting the role of personal innovativeness in shaping use behavior. In addition, this study examines selected constructs from UTAUT3 and TCT within a unified structural model, while considering income level, system quality, and digital literacy as contextual factors relevant to digital banking use and continuance.

2. Literature Review

2.1. Unified Theory of Acceptance and Use of Technology 3 (UTAUT3)

UTAUT, suggested by Venkatesh et al. (2003), integrates multiple technology acceptance theories, including the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Social Cognitive Theory (SCT). This model has shown the capacity to elucidate up to 70% of the diversity in behavior intention (Venkatesh et al., 2003), establishing it as the most extensive framework in the information technology literature. Farooq et al. (2017) further refined UTAUT3 by including personal innovativeness as the eighth variable, augmenting its relevance to the domain of new technology adoption. It should be noted that UTAUT3 fully encompasses eight constructs, namely performance expectancy, effort expectancy, social influence, facilitating conditions,

hedonic motivation, price value, habit, and personal innovativeness. In this study, the model adopts personal innovativeness as a selective representation of UTAUT3, considering its strong relevance in the context of continuance use of digital banking services (Rahman et al., 2024).

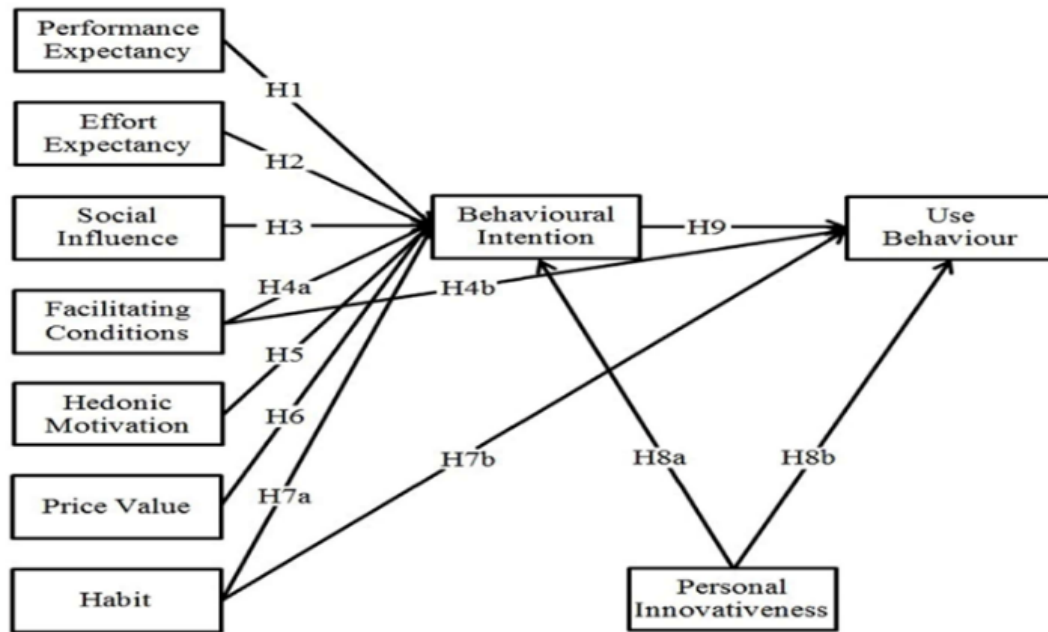
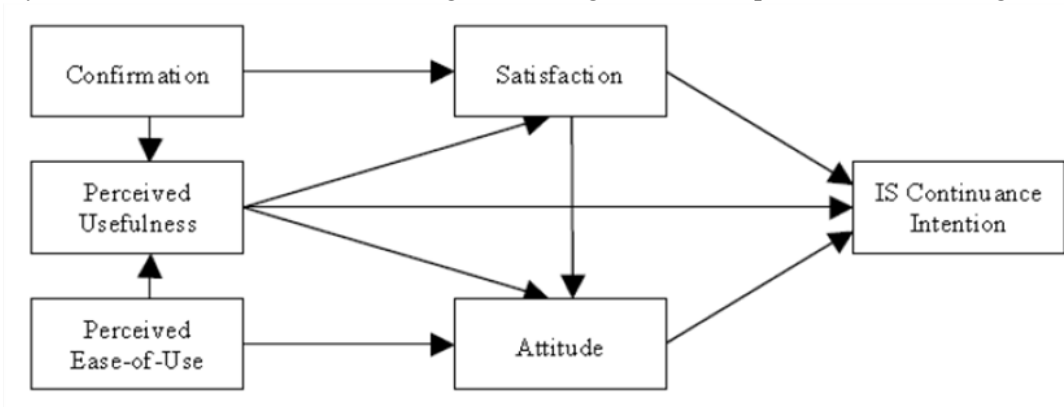


Fig. 1: Framework UTAUT3 (Farooq et al., 2017)

2.2. Technology Continuance Theory (TCT)

TCT (Liao et al., 2009) addressed questions beyond the scope of conventional technology acceptance models. This technology integrates three main constructs, such as perceived usefulness, attitude, and satisfaction, into a single sustainable model that can predict continuance intention more accurately compared to TAM, ECM, or COGM individually (Rahi et al., 2021). The principal contribution of TCT is the amalgamation of attitude and satisfaction in a cohesive framework that simultaneously addresses both cognitive and affective aspects of continuance technology use. This study does not comprehensively test the entire TCT construct, but selectively adopts the TCT perspective relevant to the study focus. Perceived usefulness of digital banking services shapes continuance usage behavior



among Generation Y in Indonesia.

Fig. 2: Framework TCT (Liao et al., 2009)

2.3. DeLone & McLean IS Success Model

DeLone and McLean's information system success model (2003) provides a multidimensional evaluation framework including system, information, and service quality. In the context of digital banking, system quality includes platform reliability, response speed, transaction security, and ease of interface navigation. Rulinawaty et al. (2024) showed that the D&M model could be combined with UTAUT to provide a more holistic understanding of information system success across diverse contexts.

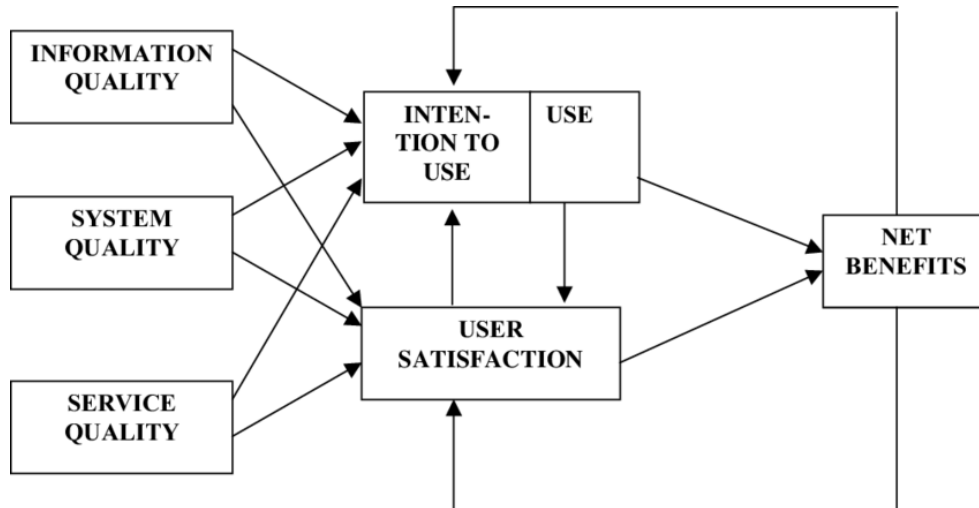


Fig. 3: Framework DeLone & McLean IS Success Model (DeLone & McLean, 2003)

2.4. Income Level

Individual income reflects financial capacity, derived from sources such as salary, wages, dividends, rental income from properties, and profits from self-employment over a given period (Goyal et al., 2021). Income level is important for technology adoption in two ways. Higher income earners often have greater access to digital devices and reliable internet connections, reducing technical barriers to digital banking service use (Almanaseer et al., 2024). Rouse et al. (2025) reported that individuals in high-paying occupations tend to use mobile banking services due to a lower perceived level of risk. Based on the perspective of financial inclusion, income level is consistently identified as the main barrier to accessing digital financial services. Low-income individuals tend to face limitations in smartphone ownership, internet data capacity, and readiness to pay digital transaction fees, thereby affecting behavior intention in using digital banks (Prathama & Harsono, 2023; Arianti, 2018). This result shows that income level variable in this model is based on the arguments of affordability and digital accessibility, rather than just general financial capacity.

2.5. Personal Innovativeness

Personal innovation refers to the degree to which individuals are inclined and capable of autonomously adopting and experimenting with new information technologies, independent of validation from social context (Farooq et al., 2017). Alif and Sudiana (2023) defined personal innovation as the capacity for adapting to and proactively using new information systems. According to Valtonen et al. (2023), highly innovative individuals tend to implement new ideas rather than remaining at a theoretical level. Wardana (2023) conducted a study using UTAUT3 at Bank Raya Indonesia, showing that behavior intention and actual use of digital banking services are strongly influenced by personal inventiveness.

2.6. Behavior Intention

Behavior intention reflects an individual's determination to act and the probability of performing that action (Julyazti et al., 2023). Ajzen (1991) defined intention as a motivating element that directly affected behavior, as more robust intention enhances the probability of related actions. In studies on digital banking adoption, behavior intention consistently acts as a crucial predictor across many

scenarios. Julyazti, Alfarisi, and Ardianto (2023) established that behavior intention consistently forecasted the intensity of digital service usage, although demographic factors influence this relationship.

2.7. Use Behavior

In UTAUT model, Venkatesh et al. (2003) define use behavior as a quantitative measure of user interaction with information technology systems, including dimensions of usage frequency, session duration, and the variety of features accessed. Venkatesh et al. (2012), in developing UTAUT2, retained the construct as the main dependent variable while also positioning it as a predictor of continued use. In the Indonesian digital banking ecosystem, use behavior includes a wide range of increasingly diverse activities. Lonardi and Legowo (2021) reported that users of digital payment systems in Jakarta exhibited fragmented usage patterns. This report suggests that a single user can simultaneously use several platforms for different transactions depending on the incentives and convenience offered. Effective system use reflects successful information technology adoption, since new technology without actual usage provides no real business or social value, regardless of initial user intention (Rachmawati et al., 2020).

2.8. Perceived Usefulness

Perceived usefulness is characterized as the conviction that persons using a technology or system would encounter a beneficial effect on productivity and performance. In the context of TCT, Liao, Palvia, and Chen (2009) position perceived usefulness as a primary construct that directly affected intention to continue usage. Perceived usefulness is one of the key factors influencing mobile banking adoption, particularly when digital banking services are perceived to provide clear value and practical benefits for users (Thanh et al., 2025). The results by Kurniawan et al. (2024) also showed that the greater the perceived benefits users derive from digital banking applications, suggesting a tendency to continue using the service. Users who recognize tangible advantages from the information technology system show a greater tendency to continue usage, progressing from initial acceptance to sustained loyalty. Uzun et al. (2024) established that the sense of utility directly affects the desire to persist in utilizing e-learning. Vaddhano (2023) showed that perceived utility had a greater impact on continued intention than on satisfaction.

2.9. System Quality

System quality refers to the extent to which an information technology system functions according to user requirements and expectations (Haryanto & Widyastuti, 2018). According to DeLone & McLean IS Success Model (2003), system quality contributes to the success of an information system. Reliable system performance strengthens user trust in the platform and increases user comfort in conducting significant financial activities. In contrast, minor disruptions in digital banking systems can substantially reduce customer trust due to the financial sensitivity and risk of loss associated with banking transactions (Kowsar & Mintoo, 2025). Mendrofa and Hastuti (2024) showed that system quality substantially influences satisfaction of users with accounting information systems, as high-quality systems elicit positive feedback, promoting continued usage. Sabarudin and Razak (2021) suggested that system quality significantly influenced intention to persist in using the e-campus system in Malaysia.

2.10. Continuance Intention to Use

Continuance intention to use refers to the inclination and resolve of individuals to persist in using a technology or service beyond its initial adoption stage. In the field of digital business, user retention is significantly more cost-effective than user acquisition, rendering continuance intention the most relevant strategic aspect for the sustained expansion of digital banking institutions. Permana et al. (2022)

explained that individuals with specific expectations before service use evaluate the service after the initial experience, and the evaluation determines continuance or discontinuation. Tekaqnetha and Rodhiah (2020) assert that in digital service ecosystem, the decision to continue is a process that succeeds the first acceptance decision and is significantly shaped by the aggregation of favorable user experiences. Rahi et al. (2021) showed that the integration of the TCT and Task-Technology Fit model effectively elucidates the sustainability of internet banking utilization, with user happiness and perceived usefulness serving as key mediators.

2.11. Digital Literacy

Digital literacy includes a set of competencies that empower individuals to access, comprehend, critically assess, and use digital technology proficiently, securely, and ethically in daily life (Hussain & Phulpoto, 2024). These abilities are not limited to only technical skills, but also include validating information accuracy, understanding the implications of digital privacy, and using digital tools productively without posing security risks (Buchan et al., 2024). In banking technology adoption, digital literacy serves as a bridging factor between cognitive readiness and users' technical preparedness. Bala (2025) reported that digital literacy markedly improved the acceptance of digital banking services because digitally literate users are better able to understand how the system works, recognize security risks, and explore the available features. Haryanto et al. (2023) discovered that digital literacy is a crucial factor influencing the adoption of technology-based financial services in Indonesian digital zakat payments, as analyzed through UTAUT framework.

2.12. Hypothesis Development

Based on the synthesis of the previously mentioned theories, this study formulated eleven hypotheses.

H1: Income level affects behavior intention among digital bank users.

Income level serves as a proxy for the perception of financial capacity and individual affordability. Individuals with higher incomes tend to face fewer economic barriers to digital banking service adoption, increasing the tendency to form usage intention (Arianti, 2018; Prathama & Harsono, 2023; Rouse et al., 2025). Based on the perspective of financial inclusion, this relationship reflected disparities in access to digital financial infrastructure across income levels.

H2: Personal innovativeness influences behavior intention among digital bank users.

Individuals with a high level of personal innovation showed a greater tendency to proactively form an intention to use new technology. Farooq et al. (2017) established personal innovativeness as a major determinant of behavior intention in UTAUT3. Meanwhile, Wardana (2023) confirmed the relevance of this relationship in the context of digital banking.

H3: Personal innovativeness influences use behavior among digital bank users.

In addition to playing a role in intention formation, innovative individuals also tend to exhibit higher actual use behavior because there is an intrinsic motivation to explore the features and capabilities of new systems (Valtonen et al., 2023; Sang & Ha, 2025). Personal innovativeness not only drives intention but also active usage.

H4: Behavior intention influences use behavior among digital banking users.

The relationship between intention and behavior is the main foundation in UTAUT and TPB frameworks (Venkatesh et al., 2003; Ajzen, 1991). A strong behavior intention reflects an individual's motivational readiness to act, which theoretically will manifest in actual use behavior. Farzin et al. (2021) found that intention to adopt mobile banking positively influences actual use behavior.

H5: Behavior intention influences continuance intention to use among digital bank users.

Behavior intention, which reflects the motivational commitment to remain engaged in using the service, is expected to positively influence intention for continued use, particularly in the context of digital

services. Users with a strong intention to use digital services tend to maintain long-term loyalty (Rahi et al., 2021).

H6: Use behavior influences continuance intention to use among digital bank users.

According to TCT and UTAUT2, use behavior is expected to strengthen intention to continue use through the formation of habits and the accumulation of positive experiences while using the service (Venkatesh et al, 2012; Tekaqnetha dan Rodhiah, 2020).

H7: Perceived usefulness influences continuance intention to use among digital bank users.

TCT places the perception of usefulness as the main predictor of intention to continue use (Liao et al., 2009). Users who consistently perceive functional benefits from a digital banking platform tend to be more committed to continuing to use the service (Uzun et al., 2024).

H8: System quality influences continuance intention to use among digital bank users.

System quality, which includes reliability, security, and ease of navigation, directly shapes user trust and satisfaction with digital bank platform. Users who consistently experience high system quality tend to maintain their use of the service over time (Sabarudin & Razak, 2021; DeLone & McLean, 2003).

H9: Digital literacy moderates the relationship between income level and behavior intention.

Individuals with higher digital literacy are better able to evaluate digital banking services based on the functional benefits rather than solely on perceptions of affordability influenced by income. Therefore, digital literacy is expected to weaken the influence of income level on behavior intention, as lower-income users with adequate digital literacy remain capable of making adoption decisions in a more informational and rational manner (Ezeudoka & Fan, 2024; Chen et al., 2024).

H10: Digital literacy moderates the relationship between personal innovativeness and behavior intention.

Digital literacy strengthens the transformation of innovative tendencies into concrete behavior intention by equipping users with the technical competencies necessary to realize those innovative tendencies. Therefore, higher digital literacy is expected to enhance the influence of personal innovation on behavior intention (Haryanto et al. 2023; Bala, 2025).

H11: Digital literacy moderates the relationship between personal innovativeness and use behavior.

Digital literacy is expected to strengthen the influence of personal innovation on actual usage behavior. Users with high digital literacy can more effectively translate innovative tendencies into active platform exploration and adoption of digital banking service features (Marhadi et al., 2024; Sang & Ha, 2025).

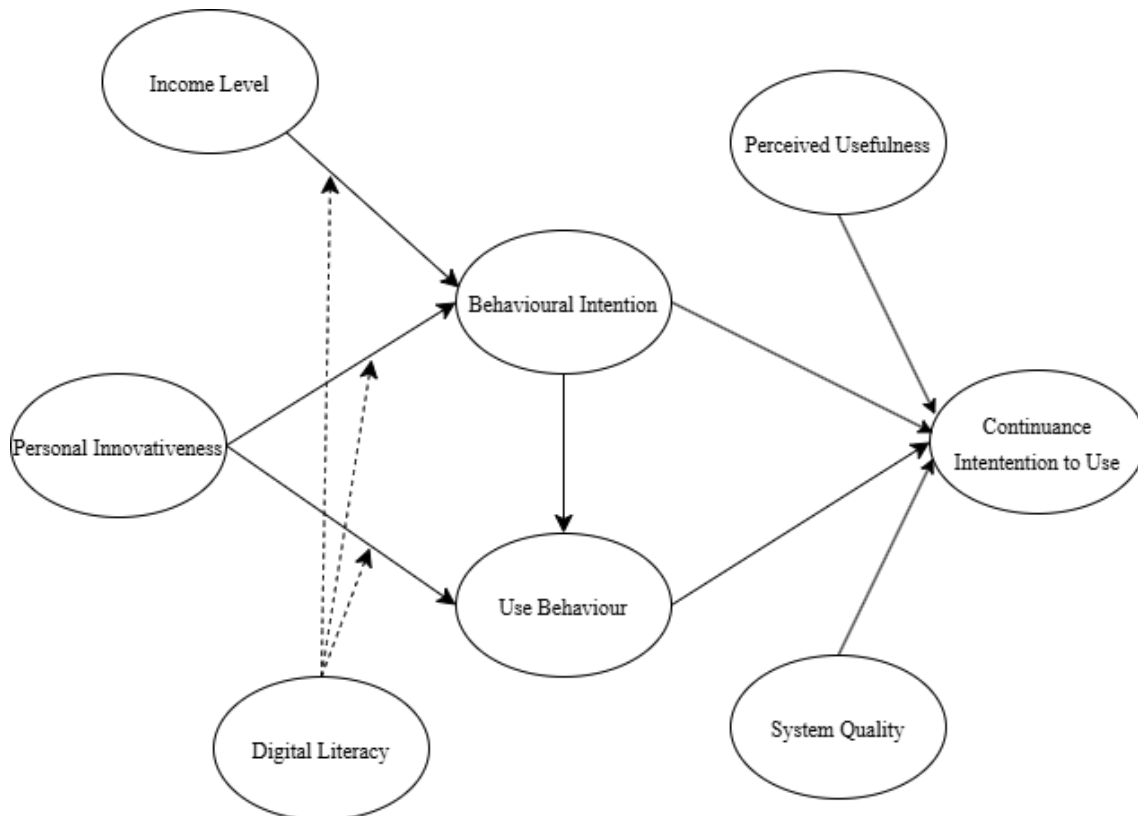


Fig. 4: Conceptual Framework (Haryanto et al. (2023), Liao, Palvia, & Chen (2009), Prathama & Harsono (2023), Sabarudin & Razak (2021), Wardana (2023))

3. Study Method

3.1. Study Design and Method

A cross-sectional design was adopted with a quantitative method. This method was selected because it allowed for the efficient collection of data from various geographic locations using non-probability sampling methods and facilitated testing causal relationships within a complex structural model (Rustamana et al., 2024). The study subjects were active users of digital banking applications in Indonesia who were members of Generation Y (ages 29-44 at the time of the survey). Primary data were collected from June to December 2025 through survey dissemination using Google Forms across several digital channels, including WhatsApp, Facebook, particularly Digital Bank Forum, and Instagram. To ensure data quality, several control procedures were systematically implemented. First, Google Forms were configured with a restriction that allowed only one response per Google account to prevent duplicate answers from the same respondent. Second, verification of active digital bank users occurred through a screening question at the beginning of the questionnaire that asked respondents to name the digital banking application used during the past 6 months. Respondents who did not meet this criterion were automatically directed out of the questionnaire. Third, all collected data were checked for consistency by identifying straight-lining answer patterns before proceeding to the statistical analysis stage.

3.2. Population, Sample, and Sampling Method

The study population comprised all active users of digital banking applications from Generation Y residing in six regions of Indonesia, namely West Java, East Java, Central Java, North Sumatra, Banten, and DKI Jakarta. These regions were selected because the provinces had the highest population in

Indonesia and significant levels of internet penetration and adoption of digital banking services, according to data from the Central Statistics Agency (Badan Pusat Statistik-BPS, 2020). The minimum sample size was calculated using the Cochran formula when the population size was not accurately known.

$$n = \frac{Z^2 \times P(1 - P)}{e^2}$$

Description:

- n = number of samples.
- Z = statistic Z (for a confidence level of 95% or sig. 0,05)
- P = maximum estimated proportion
- d = absolute precision/alpha/sampling error

Using a confidence level of 95% or $Z = 1.96$ (normal distribution table) with a maximum estimate of 50% (0.5) and 5% (0.05), the calculations are as follows:

$$n = \frac{1,96^2 \times 0,5(1 - 0,5)}{0,05^2} = 384,16$$

Pham et al. (2023) recommended recruiting respondents beyond the minimum requirement to anticipate invalid data, and the analyst set a target of 450 respondents. The sample strategy was non-probability sampling using a purposive sampling method. The criteria for inclusion were (a) belonging to Generation Y (born 1981–1996), (b) being an active user of at least one digital banking application (SeaBank, Bank Jago, BNC, Hibank, BCA Digital, Allo Bank, or Bank Raya) in the last 6 months, and (c) residing in West Java, East Java, Central Java, North Sumatra, Banten, and DKI Jakarta.

3.3. Informed Consent

Informed consent was obtained from all participants verbally and implicitly prior to their participation in the study. Before completing the questionnaire, respondents were provided with a clear explanation of the study objectives, procedures, voluntary nature of participation, anonymity of responses, and their right to withdraw at any time without consequences. Verbal (non-written) informed consent was deemed appropriate because the study involved minimal risk, did not collect personally identifiable or sensitive data, and relied on an anonymous self-administered survey. Requiring written informed consent could have compromised respondent anonymity and potentially reduced participation rates. Participants decision to proceed with and complete the questionnaire was considered evidence of their informed consent.

3.4. Ethical Considerations

This study involved human participants through a voluntary questionnaire survey. However, formal ethical approval was not required because the study did not involve medical or psychological interventions, experimental manipulation, or sensitive personal data. All data were collected anonymously, and no identifiable information was obtained. Participation was entirely voluntary, and respondents were informed about the purpose of the study and their right to withdraw at any time. Therefore, this research falls under minimal-risk social and behavioral research and complies with ethical principles of informed consent, anonymity, and confidentiality.

3.5. Measurement Instruments

Measurement of all constructs used a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Table 1 shows a summary of the operational definitions of the variables along with the sources of measurement indicators. The "ordinal" scale in Table 1 referred to the form of measuring questionnaire responses, while in SEM estimation process, the indicators were treated as continuous variables.

Table 1. Operational Definition of Variables

Variable	Definition	Questionnaire Items	Indicators	Scale
Income Level	Total income received by individuals in a full month (Aditya & Azmansyah, 2021)	- Salary is my source of income every month. - The bonus serves as an additional source of income for me. - Most of my income is used for regular monthly expenses (electricity/water/internet/rent)	- Elements of income - Sources of income - Costs Arianti (2018)	Ordinal
Personal Innovativeness	Referring to a person's personal attitude that reflects their tendency to independently experiment and adopt new advancements in information technology. (Farooq et al., 2017)	- I'm excited to try out new technologies that I've never used before. - I was the first person to try (innovate) a digital bank application in my environment. - When I see a new technology, I'm willing to use it. - In general, I don't hesitate to try the latest banking apps.	- New discovery - Being the first - Ready to adopt - Want to try (Kalinic et al., 2019)	Ordinal
Behavioural intention	Behaviour patterns that indicate a desire or wish to buy or use a product or service. (Julyazti et al., 2023)	- I have a smartphone, so I intend to use a digital bank app. - I use the digital bank app regularly for scheduled monthly expenses. - I intend to take advantage of all the features available in the digital bank application (savings/investing/loan).	- Intention to use - Use for needs - Intend to make the best use of it (Tiwari et al., 2022)	Ordinal
Use Behaviour	Customer intensity in using a technology. (Venkatesh et al., 2012)	- I often use digital bank applications to transfer funds. - I always use digital bank applications to save regularly. - I use digital bank applications in my daily life. - I use digital banks for business budgeting purposes.	- Frequently using - Have been using regularly - Have been using in daily life - Utilizing for business (Tampubolon & Briliana, 2024)	Ordinal

Table 1. Operational Definition of Variable (Cont.)

Variable	Definition	Questionnaire Items	Indicators	Scale
Perceived Usefulness	The belief that the use of technology can increase efficiency, provide convenience, and support in carrying out activities. (Aldammagh et al., 2021)	- Using a digital bank app allows me to complete transactions faster. - Overall, I find the digital bank app useful. - Digital banks help me complete transactions without having to visit a branch. - I feel that banking activities have become easier thanks to the services available in the digital bank app. - Using digital bank apps improves my performance in managing personal finances.	- Work more quickly - Useful - Effectiveness - Easier - Performance (Kumala et al., 2020)	Ordinal
System Quality	It includes easy-to-use applications, convenient access, acceptable response times, stable system security and functionality, and attractive design. (Anita, 2024)	- The appearance of the existing digital bank application makes it easier for me to transact. - The digital bank app can easily complete my transactions. - The digital bank app processed my request in real time. - The digital bank application system is easy to access at any time. - I feel safe when transacting through digital bank applications.	- Ease of use - System reliability - System speed - Ease of access - System security (Hernandez & David, 2022)	Ordinal
Continuance Intention to Use	A person's intention to continue using the system/service in the post-adoption phase, not just the initial acceptance stage. (Rabaa'i & ALMaati, 2021)	- I plan to continue using digital banking apps to transfer funds between accounts. - I will continue to use the digital bank app regularly as I do now. - I want to continue using digital banks. - I would recommend digital banks to friends.	- Always using - Regularly using - Deciding to use - Willing to recommend (Gultom et al., 2023)	Ordinal
Digital Literacy	The ability of individuals to reach, understand, and critically analyze through the effective and responsible use of digital technology. (Avinç & Doğan, 2024)	- I can use my smartphone to make transactions in the digital bank app. - The internet signal in the city where I live is strong enough to use digital bank applications. - I can use the digital bank app on my smartphone.	- Ability to use a smartphone - Supporting facilities - bility to use applications - Understanding of user interface	Ordinal

Table 2. Respondent Demographics

Characteristic	Category	West Java (%)	East Java (%)	Central Java (%)	North Sumatra (%)	Banten (%)	DKI Jakarta (%)	Total (%)
Gender	Male	38 (36.2)	36 (50.7)	32 (45.7)	15 (38.5)	25 (49.0)	47 (41.2)	193 (42.9)
	Female	67 (63.8)	35 (49.3)	38 (54.3)	24 (61.5)	26 (51.0)	67 (58.8)	257 (57.1)
Age	29 - 31 years	13 (12.4)	2 (2.8)	4 (5.7)	4 (10.3)	6 (11.8)	15 (13.2)	44 (9.8)
	32 - 33 years	31 (29.5)	6 (8.5)	15 (21.4)	4 (10.3)	14 (27.5)	36 (31.6)	106 (23.6)
	34 - 35 years	18 (17.1)	5 (7.0)	7 (10.0)	6 (15.4)	6 (11.8)	14 (12.3)	56 (12.4)
	36 - 37 years	14 (13.3)	16 (22.5)	15 (21.4)	1 (2.6)	2 (3.9)	7 (6.1)	55 (12.2)
	38 - 39 years	6 (5.7)	9 (12.7)	8 (11.4)	2 (5.1)	6 (11.8)	8 (7.0)	39 (8.7)
	40 - 41 years	10 (9.5)	18 (25.4)	11 (15.7)	14 (35.9)	5 (9.8)	28 (24.6)	86 (19.1)
	42 - 44 years	13 (12.4)	15 (21.1)	10 (14.3)	8 (20.5)	12 (23.5)	6 (5.3)	64 (14.2)
Occupation	Freelance	16 (15.2)	2 (2.8)	4 (5.7)	4 (10.3)	6 (11.8)	23 (20.2)	55 (12.2)
	Private employee	30 (28.6)	23 (32.4)	26 (37.1)	16 (41.0)	26 (51.0)	46 (40.4)	167 (37.1)
	Civil servant	12 (11.4)	10 (14.1)	21 (30.0)	6 (15.4)	13 (25.5)	9 (7.9)	71 (15.8)
	Entrepreneur	39 (37.1)	28 (39.4)	10 (14.3)	11 (28.2)	4 (7.8)	26 (22.8)	118 (26.2)
	Housewife	8 (7.6)	8 (11.3)	9 (12.9)	2 (5.1)	2 (3.9)	10 (8.8)	39 (8.7)
Education level	Junior high school	0 (0.0)	0 (0.0)	1 (1.4)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)
	Senior high school	36 (34.3)	25 (35.2)	19 (27.1)	8 (20.5)	12 (23.5)	51 (44.7)	151 (33.6)
	Diploma	26 (24.8)	8 (11.3)	16 (22.9)	3 (7.7)	7 (13.7)	19 (16.7)	79 (17.6)
	Bachelor's degree	34 (32.4)	32 (45.1)	30 (42.9)	24 (61.5)	28 (54.9)	38 (33.3)	186 (41.3)
	Postgraduate	9 (8.6)	6 (8.5)	4 (5.7)	4 (10.3)	4 (7.8)	6 (5.3)	33 (7.3)
Monthly income	< IDR 1,000,000	11 (10.5)	7 (9.9)	4 (5.7)	4 (10.3)	4 (7.8)	10 (8.8)	40 (8.9)
	IDR 1,000,000-3,000,000	25 (23.8)	15 (21.1)	24 (34.3)	10 (25.6)	6 (11.8)	37 (32.5)	117 (26.0)
	IDR 3,000,001-5,000,000	30 (28.6)	20 (28.2)	18 (25.7)	8 (20.5)	21 (41.2)	34 (29.8)	131 (29.1)
	> IDR 5,000,000	39 (37.1)	29 (40.8)	24 (34.3)	17 (43.6)	20 (39.2)	33 (28.9)	162 (36.0)

Table 2. Respondent Demographic (Cont.)

Characteristic	Category	West Java (%)	East Java (%)	Central Java (%)	North Sumatra (%)	Banten (%)	DKI Jakarta (%)	Total (%)
Digital bank used	SeaBank	27 (25.7)	14 (19.7)	12 (17.1)	6 (15.4)	5 (9.8)	28 (24.6)	92 (20.4)
	Bank Jago	15 (14.3)	9 (12.7)	5 (7.1)	8 (20.5)	8 (15.7)	21 (18.4)	66 (14.7)
	Bank Neo Commerce (BNC)	18 (17.1)	9 (12.7)	13 (18.6)	5 (12.8)	5 (9.8)	20 (17.5)	70 (15.6)
	Blu by BCA Digital	15 (14.3)	8 (11.3)	13 (18.6)	2 (5.1)	11 (21.6)	19 (16.7)	68 (15.1)
	Allo Bank	12 (11.4)	6 (8.5)	14 (20.0)	6 (15.4)	13 (25.5)	11 (9.6)	62 (13.8)
	Bank Raya	12 (11.4)	15 (21.1)	3 (4.3)	7 (17.9)	6 (11.8)	5 (4.4)	48 (10.7)
	HiBank	6 (5.7)	10 (14.1)	10 (14.3)	5 (12.8)	3 (5.9)	10 (8.8)	44 (9.8)

3.6. Data Analysis Method

Data were examined using Covariance-Based Structural Equation Modeling (CB-SEM) with AMOS 31 software. CB-SEM required the concurrent evaluation of both the measurement and structural models, along with a comprehensive analysis of model fit (Hair et al., 2019). The analytical stages included (1) evaluation of the measurement model using Confirmatory Factor Analysis (CFA), (2) examination of multivariate normality through the critical ratio value ($CR < 2.58$), (3) identification of outliers using Mahalanobis distance, (4) evaluation of the structural model fit, and (5) hypothesis testing using standardized values and p-values.

4. Results and Discussion

4.1. Confirmatory Factor Analysis (CFA) Test

The complete CFA test results are presented in Table 3.

Table 3. CFA Test Result

Construct	Items	Loadings	CR	AVE
Income Level	IL1	0,92	0,87	0,69
	IL2	0,82		
	IL3	0,74		
Personal Innovativeness	PI1	0,75	0,85	0,65
	PI3	0,84		
	PI4	0,83		

Table 3. CFA Test Result (Cont.)

Construct	Items	Loadings	CR	AVE
Behavioural Intention	BI1	0,93	0,82	0,60
	BI2	0,72		
	BI3	0,65		
Use Behaviour	UB1	0,92	0,85	0,50
	UB2	0,82		
	UB3	0,69		
Perceive Usefulness	PU1	0,77	0,86	0,66
	PU3	0,86		
	PU4	0,81		
System Quality	SQ1	0,85	0,89	0,67
	SQ2	0,83		
	SQ3	0,80		
	SQ4	0,80		
	SQ5	0,80		
Continuance Intention to Use	CIU1	0,83	0,90	0,75
	CIU2	0,99		
	CIU3	0,76		
Digital Literacy	DL1	0,91	0,88	0,65
	DL2	0,82		
	DL3	0,76		
	DL4	0,72		

Source: AMOS Data Processing, 2026.

Several indicators were invalid, including PI2, UB4, PU2, PU5, and CIU4, with loading factor values <0.50 . These indicators did not meet the validity criteria and should be eliminated from the model. Based on Table 3, each construct was measured by indicators that met the criteria $CR \geq 0.70$ and $AVE \geq 0.50$. This model was subsequently used to analyze data from Generation Y.

4.2. Normality Test

The collected data were first evaluated for normality before carrying out tests. Satisfaction of the normality assumption improved accuracy and reliability in structural model parameter estimation, as shown in Table 4.

Table 4. Results of Normality Test

Variable	min	max	skew	c.r.	kurtosis	c.r.
LD_IP	-51,701	122,219	,984	4,920	2,766	6,914
LD_TP	-89,669	98,097	,164	,819	1,477	3,691
LD1	-2,100	,900	-,238	-1,189	-,845	-2,113
LD4	-2,053	,947	-,371	-1,855	-,202	-,504
LD5	-2,073	,927	-,207	-1,037	-,717	-1,794
LD7	-1,053	,947	-,049	-,244	-,685	-1,714
LD10	-1,053	,947	-,060	-,298	-1,070	-2,676
KS1	2,000	5,000	-,476	-2,379	-,500	-1,250
KS5	2,000	5,000	-,682	-3,409	,217	,544
KS6	2,000	5,000	-,267	-1,335	-,585	-1,463
KS7	3,000	5,000	-,215	-1,077	-,989	-2,473
KS10	2,000	5,000	-,284	-1,419	-,966	-2,416
PK6	2,000	5,000	-,415	-2,077	-,461	-1,152
PK4	2,000	5,000	-,368	-1,842	-1,062	-2,654
PK2	3,000	5,000	-,140	-,700	-1,341	-3,352
NPB6	3,000	5,000	-,686	-3,429	-1,128	-2,819
NPB4	3,000	5,000	1,177	5,883	1,091	2,728
NPB3	3,000	5,000	-,514	-2,568	,639	1,597
PP1	3,000	5,000	,301	1,504	-1,180	-2,949
PP2	3,000	5,000	,273	1,367	-,036	-,090
PP3	3,000	5,000	,235	1,177	-,531	-1,327
IP1	-2,087	,913	-,248	-1,242	-,743	-1,859
IP3	-2,013	,987	-,416	-2,078	-,734	-1,836
IP5	-1,207	,793	-,351	-1,757	-1,123	-2,808
NB6	2,000	5,000	,146	,729	3,691	9,228
NB3	2,000	5,000	,029	,145	-,760	-1,901
NB2	2,000	5,000	-,111	-,553	,862	2,154
TP8	-2,073	,927	-,341	-1,704	-,259	-,647
TP7	-2,073	,927	-,394	-1,969	-,585	-1,463
TP2	-2,080	,920	-,226	-1,129	-,992	-2,479
Multivariate					26,469	3,699

Source: AMOS Data Processing, 2026.

The multivariate normality test results showed a kurtosis score of 26.469 and a critical ratio (c.r.) of 3.699, exceeding the 2.58 threshold. This result signified that the data did not conform to multivariate normality. The condition also showed the potential influence of extreme data points (outliers) on the data distribution.

4.3. Outlier Test

Table 5. Outlier Findings

Observation number	Mahalanobis d-squared	p1	p2
14	67,831	,000	,014
108	58,638	,001	,018
5	58,041	,002	,002
38	49,532	,014	,156
6	49,041	,016	,086
82	47,497	,022	,119
83	46,832	,026	,095
55	46,193	,030	,081
20	45,490	,035	,079
124	45,340	,036	,045
100	44,714	,041	,046
58	43,120	,047	,152
56	41,200	,084	,489
116	41,019	,087	,426

Source: AMOS Data Processing, 2026.

Based on the outlier evaluation results (Table 5), several observations with significant Mahalanobis distances ($p < 0.05$) were identified as extreme data points. After removing 12 outlier data points, the remaining data were expected to have a more normal distribution and be better suited for subsequent SEM analysis, thereby improving the accuracy and reliability of the model estimation results. The removal of those 12 observations was due to the examination of response patterns for extreme data, which showed high inconsistency among items in the same construct. This result showed the possibility of careless questionnaire completion or respondent misalignment with the study criteria. As a sensitivity test, the analysis was also conducted with all data, including outliers. A consistent direction of influence with the model excluding outliers was also suggested, as shown in Table 6. Outliers did not significantly alter the substantive conclusions of the study.

Table 6. Normality Test after Outliers Removed

Variable	min	max	skew	c.r.	kurtosis	c.r.
LD_IP	-51,701	95,259	,625	2,999	1,460	3,502
LD_TP	-69,889	97,517	,114	,547	1,399	3,355
LD1	-1,100	,900	-,172	-,826	-1,028	-2,465
LD4	-2,053	,947	-,312	-1,496	-,315	-,755
LD5	-2,073	,927	-,225	-1,081	-,688	-1,651
LD7	-1,053	,947	-,061	-,292	-,689	-1,653
LD10	-1,053	,947	-,075	-,358	-1,046	-2,508
KS1	2,000	5,000	-,456	-2,185	-,604	-1,447
KS5	2,000	5,000	-,712	-3,412	,300	,721
KS6	2,000	5,000	-,300	-1,440	-,479	-1,149
KS7	3,000	5,000	-,255	-1,222	-,960	-2,303
KS10	2,000	5,000	-,310	-1,485	-1,008	-2,417
PK6	2,000	5,000	-,448	-2,150	-,415	-,995
PK4	2,000	5,000	-,344	-1,649	-1,070	-2,567
PK2	3,000	5,000	-,086	-,412	-1,285	-3,081

Table 6. Normality Test after Outliers Removed (Cont.)

Variable	min	max	skew	c.r.	kurtosis	c.r.
NPB6	4,000	5,000	-,540	-2,592	-1,708	-4,095
NPB4	4,000	5,000	1,656	7,940	,741	1,777
NPB3	3,000	5,000	-,877	-4,207	,801	1,920
PP1	4,000	5,000	,606	2,905	-1,633	-3,916
PP2	3,000	5,000	,596	2,856	-,225	-,539
PP3	3,000	5,000	,508	2,436	-,837	-2,007
IP1	-1,087	,913	-,144	-,692	-,895	-2,147
IP3	-2,013	,987	-,392	-1,881	-,785	-1,881
IP5	-1,207	,793	-,337	-1,617	-1,093	-2,620
NB6	3,000	5,000	1,421	6,814	1,163	2,788
NB3	3,000	5,000	,077	,367	-1,115	-2,674
NB2	4,000	5,000	,573	2,747	-1,672	-4,009
TP8	-1,073	,927	-,118	-,564	-,659	-1,581
TP7	-2,073	,927	-,283	-1,356	-,802	-1,923
TP2	-1,080	,920	-,170	-,814	-1,230	-2,949
Multivariate					-2,733	-,366

Source: AMOS Data Processing, 2026.

The outcomes of normality assessment subsequent to outlier elimination showed that the multivariate kurtosis was -2.733, accompanied by a critical ratio (c.r.) of -0.366. This value fell below the <2.58 limit, suggesting that the data met the multivariate normality assumption.

4.4. Goodness of Fit Test (GoF)

After the data met the normality assumption and there was no multicollinearity, the subsequent step was to assess the GoF of the structural model to determine the extent of correspondence between the theoretical model and the empirical data. This evaluation examined several model fit indices that reflected absolute, incremental, and parsimony fit. Several fit indices fell below recommended cut-off values and required reporting. This marginal fit condition showed that the model had room for improvement. Model respecification was recommended for future study, including considering modification indices to identify theoretically justified correlations between error terms and reviewing indicators with low loading factors. However, CMIN/DF index=1.815 (≤ 2.00), RMSEA=0.077 (≤ 0.08), RMR=4.334 (≤ 5.00), as well as all fit parsimony indices (PRATIO=0.903; PNFI=0.686; PCFI=0.789) supported the model's feasibility for hypothesis testing, while caution was still warranted in interpreting the results. The complete results of the GoF model are shown in Table 7.

Table 7. Goodness of Fit Results

Aspect of GOF	Index	Value	Cut-off Value	Description
Absolute Fit	CMIN/DF	1,815	$\leq 2,00$	Fit
	RMSEA	0,077	$\leq 0,08$	Fit
	RMR	4,334	$\leq 5,00$	Fit
	GFI	0,780	$\geq 0,90$	Marginal
	AGFI	0,739	$\geq 0,90$	Marginal
Incremental Fit	CFI	0,873	$\geq 0,90$	Marginal
	TLI	0,859	$\geq 0,90$	Marginal
	IFI	0,875	$\geq 0,90$	Marginal
	NFI	0,759	$\geq 0,90$	Marginal
Parsimony Fit	PRATIO	0,903	$\geq 0,50$	Fit
	PNFI	0,686	$\geq 0,50$	Fit
	PCFI	0,789	$\geq 0,50$	Fit

Source: AMOS Data Processing, 2026.

4.5. Hypothesis Test

Table 8. Hypothesis Results

No	Hypothesis	Standardized	C.R.	P-value	Description
1	PI → BI	0,498	6,159	< 0,001	Significant
2	IL → BI	0,445	5,471	< 0,001	Significant
3	PI → UB	0,543	4,934	< 0,001	Significant
4	BI → UB	-0,043	-0,281	0,779	Not Significant
5	UB → CIU	0,047	0,462	0,644	Not Significant
6	BI → CIU	0,421	3,834	< 0,001	Significant
7	SQ → CIU	0,605	7,066	< 0,001	Significant
8	PU → CIU	0,398	5,004	< 0,001	Significant

Source: AMOS Data Processing, 2026.

The test results in Table 8 showed that the study model was dominated by significant relationships, with the strongest influence found on the system quality (SQ) path toward continuance intention to use (CIU) at 0.605. This result showed that the continuance of digital banking service usage was primarily determined by the reliability, ease, stability, and technical quality of the system as perceived by users. Additionally, personal innovativeness (PI) had a strong influence on use behavior (UB) at 0.543 and on behavior intention (BI) at 0.498. This result showed the importance of individual characteristics associated with openness to technology in driving both intention and actual use. Income level (IL) also showed an influence on behavior intention of 0.445.

4.6. Moderation Test

Moderation analysis of digital literacy (H9, H10, H11) was conducted using the product indicator approach in AMOS. Before the formation of the interaction variables, all the included variables, namely digital literacy, income level, and personal innovativeness, were first standardized (mean-centering) by subtracting each observation score from the average value of the construct. This was carried out to minimize multicollinearity between the main and interaction variables. The latent interaction variable was constructed by multiplying indicator scores of the moderator variable, digital literacy, with indicator scores of the predictor variable, income level for H9 and personal innovativeness for H10 and H11. This latent interaction variable was then included in the structural model as an additional predictor. The significance of the path coefficient showed the presence of a moderation effect (Table 9).

Table 9. Moderation Test Results

No	Exogen Variables	Endogen Variables	Moderation	Path Koef. (Std)	P-value	Description
1	IL	BI	DL	-0,043	0,022	Significant (Weaken)
2	PI	BI	DL	0,346	0,003	Significant (Strengthen)
3	PI	UB	DL	0,739	< 0,001	Significant (Strengthen)

Source: AMOS Data Processing, 2026.

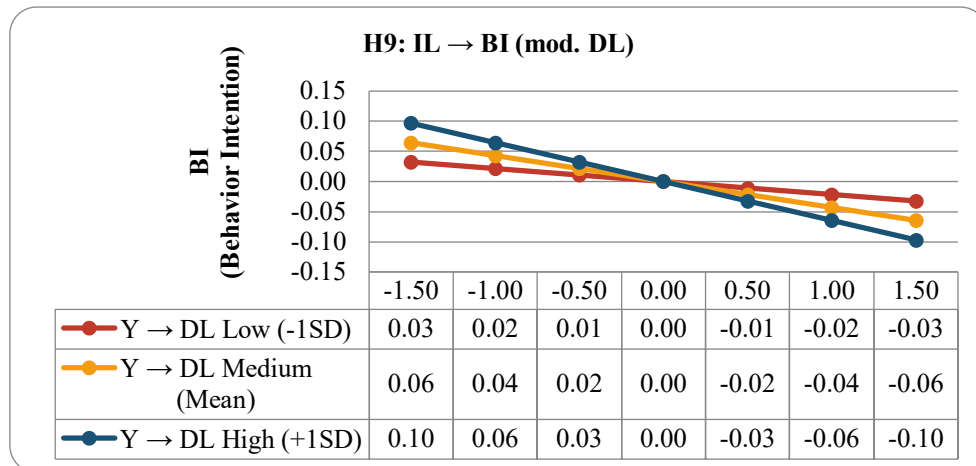


Fig. 5. Simple Slope Plot H9

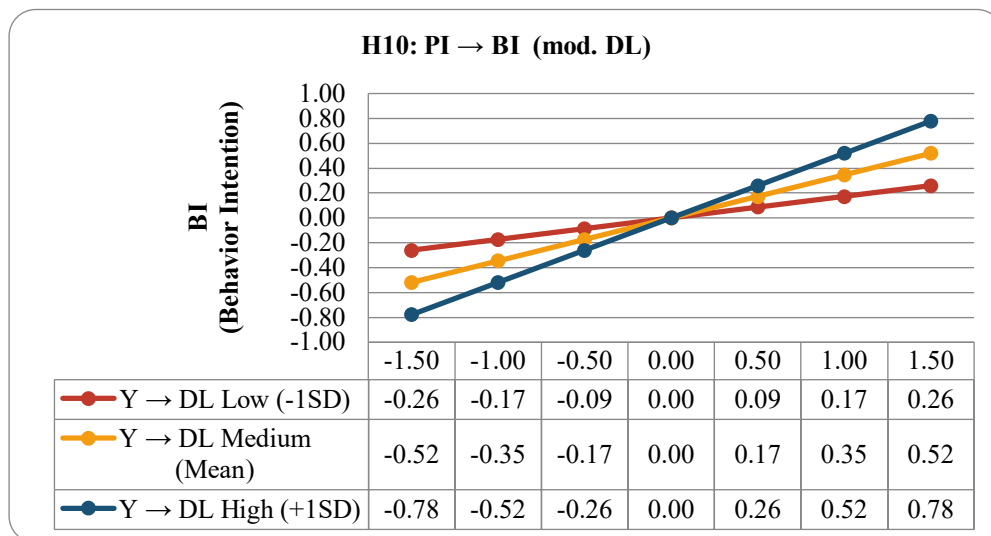


Fig. 6 Simple Slope Plot H10

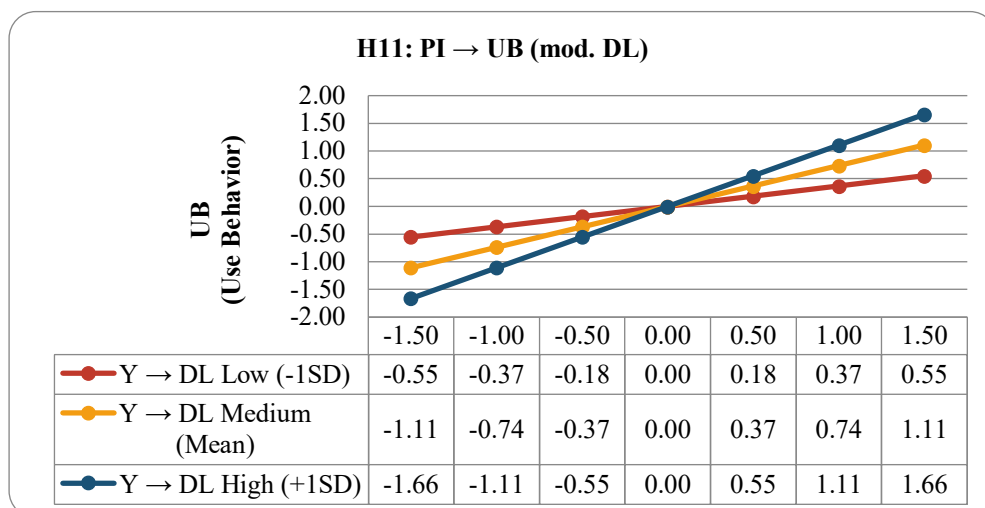


Fig. 7 Simple Slope Plot H11

Simple slope plots show that digital literacy moderates the direction and strength of associations in model. In H9, the relationship between income level and behavior intention showed a negative trend, with the slope of the line becoming steeper at higher levels of digital literacy. This result showed that

for users with high digital literacy, intention to use digital banking was no longer highly dependent on income level, but rather on the user's ability to understand and use digital services. In H10, digital literacy strengthens the influence of personal innovativeness on behavior intention, evidenced by a steeper slope in the high digital literacy group. Individuals with strong digital literacy show a greater tendency for innovative individuals to form intention to use digital banking services. Furthermore, in H11, digital literacy also strengthened the influence of personal innovativeness on use behavior, even with the most pronounced difference in slope. These results showed that digital literacy played a crucial role in helping innovative users transform the tendency to try out technology into actual intention and behaviors of using digital banking.

4.7. Discussion

The study result showed multiple insights that hold both theoretical and practical significance. System quality is established as the most substantial indicator of intention for continued use ($\beta=0.605$, $p<0.001$), above all other factors. The results affirm that for Generation Y, technical reliability is an indispensable requirement in the digital banking landscape. This group maintains high expectations for system performance. Any disruption, including downtime and transaction processing delays, can reduce perceived service reliability and weaken continuance intention for digital banking applications. The results of this study corroborate DeLone & McLean (2003) and are further substantiated by Haedar & Marsasi (2025), Al Amin et al. (2024), and Jo (2022), showing that the dimension of technical excellence continuously prevails in consistently influencing the continuing usage decisions of young customers.

The intention-behavior gap phenomenon is consistent with the absence of a significant relationship between behavior intention and actual use behavior ($\beta=-0.043$, $p=0.779$). However, behavioral intention had a substantial impact on the continuance intention to use ($\beta=0.421$, $p<0.001$). These results are consistent with the report of Shah & Zhongjun (2021), Sharma et al. (2024), and Ramayanti et al. (2024) that intention is a more robust predictor of continuance intention than actual use. Intention to use digital banking services does not translate into actual use behavior. These results cannot be interpreted as definitive evidence of intention-behavior gap because of the cross-sectional design of the study. Future studies are expected to use a longitudinal design to confirm this pattern.

The relationship between personal innovation and consumption behavior is directly influenced ($\beta=0.543$), with this influence significantly enhanced by interaction with digital literacy ($\beta=0.739$, $p<0.001$), representing the greatest moderation value in the total model. These results have significant consequences, showing that an inventive mindset lacking sufficient digital literacy assistance will lead to just superficial investigation. The integration of an inventive orientation and elevated digital literacy might expedite the conversion of psychological inclinations into tangible, exploratory, and continuance use behaviors. Sang & Ha (2025), Meiranto et al. (2026), Assri, Tantomo, & Billah (2025), and Marhadi et al. (2024) reported that pairing innovative stimuli with high digital literacy improved user capacity to explore new features, understand service advantages, and maintain sustained engagement with digital banking applications.

Perceived usefulness was found to have a significant effect on continuance intention ($\beta = 0.398$, $p<0.001$). This finding indicates that when Generation Y users perceive digital banking applications as useful in improving transaction efficiency, saving time, and providing functional benefits in daily financial activities, they are more likely to continue using the service. This result is supported by Nguyen and Dao (2024), who found that perceived usefulness significantly influences continuance intention in mobile banking. Furthermore, Lee et al. (2023) emphasized that, in the context of artificial intelligence-enabled mobile banking applications, perceived usefulness and user satisfaction serve as important mechanisms that encourage users' willingness to continue engaging with digital banking services.

Digital literacy has shown a reduction in the impact of income level on behavior intention ($\beta = -0.043$, $p = 0.022$). This discovery is significant for financial inclusion policy, since people with higher digital literacy often make adoption decisions based on considerations of benefits and efficiency rather than solely on financial capability. Users with higher incomes generally have better access to digital devices, stable internet connections, and supporting technological resources. However, even with adequate digital literacy, lower-income users can still understand digital banking features, use applications effectively, follow transaction procedures, and reduce perceived technical barriers. Digital literacy acts as a supporting capability that helps lower-income users use digital banking services more confidently, thereby weakening the influence of income level on behavior intention. The results are consistent with the study of Ezeudoka & Fan (2024), Chen et al. (2024), and Wang et al. (2025), suggesting that digital literacy enhances individuals' comprehension of the characteristics, advantages, risks, and processes associated with technology. This rendered behavior intention independent of mere economic capacity or income level, justifying the need for politicians and banking institutions to invest in focused and inclusive digital literacy initiatives.

The result of use behavior shows no significant effect on continuance intention (H_6 , $\beta = 0.047$, $p = 0.644$), suggesting that in the highly competitive digital banking context, past usage frequency does not serve as a reliable predictor of future loyalty. Consistent with Söllner et al. (2024), loyalty and continuance intention for digital financial services are mainly influenced by satisfaction, trust, technological readiness, system quality, service quality, security, and perceived benefits. Generation Y have access to various digital financial service options, including digital wallets, pay-later services, and integrated payment platforms. Therefore, reliance on a singular application does not inherently lead to sustained commitment. Banking institutions must establish a more robust retention measuring system that focuses on generating ongoing added value and personalizing services according to user behavior.

5. Conclusion

In conclusion, the results of this study enhance the comprehension of the factors influencing intention to sustainably use digital banking applications among Generation Y in Indonesia by integrating UTAUT3 and TCT into a unified structural model. Three principal results that provide the most substantial theoretical and practical contributions are presented.

System quality is the paramount factor influencing intention for continuing usage ($\beta = 0.605$), above perceived usefulness and other psychological variables. This result shows that for Generation Y, technical reliability is an indispensable need for the adoption of digital financial services. Intention-behavior gap phenomenon is consistent with results showing that behavioral intention does not predict use behavior but significantly influences continuance usage intention orientation. Digital literacy functions as a transformative moderator, strengthening the impact of personal innovation on use behavior ($\beta = 0.739$) while reducing the influence of income as an adoption barrier ($\beta = -0.043$).

Three practical recommendations were made in this study. For banking institutions, continuous investment in technological system quality, including stability, security, and speed, functions as a strategic objective that directly improves retention of Generation Y customers. Enhancing public digital literacy is a strategic tool for regulators and policymakers to foster equitable financial inclusion, as it has shown efficacy in reducing income-based adoption gaps. Digital banking product developers find that features designed to convert intent into action, by simplifying transaction flows and connecting features to specific needs. These product-oriented improvements may support continuance to use more directly than general promotional efforts. The limitations of this study include the use of a sample from six provinces, failing to adequately represent Indonesian demographic diversity, and a cross-sectional methodology that precludes the examination of longitudinal behavior changes. Future studies should broaden the geographical focus to include non-urban regions, adopt a longitudinal methodology, and investigate satisfaction as a mediating mechanism through which system quality influences users'

continuance intention in digital banking.

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