Formosa Journal of Multidisciplinary Research (FJMR)
Vol. 5 No. 3, 2026: 917-936

The Influence of the UTAUT2 Model, Perceived Risk, and Digital Literacy on Continued Usage Behavior with Continued Usage Intention as a Mediating Variable in the Ollin by Nagari Application: A Study of Customers at Bank Nagari Pariaman

Fitri Yenti[1]*, Abror[2]
Universitas Negeri Padang
Corresponding Author: Fitri Yenti mimoyunp@gmail.com

ARTICLEINFO
Keywords: UTAUT2, Perceived Risk, Digital Literacy, Continued Use Intention, Continued Use Behavior

Received : 29, January
Revised : 28, February
Accepted: 28, March

©2026 Yenti, Abror: This is an open-access article distributed under the terms of the Creative Commons Atribusi 4.0 Internasional.

ABSTRACT
This study aims to analyze the influence of UTAUT2, perceived risk, and digital literacy on continued usage behavior with continued usage intention as a mediating variable among customers of Bank Nagari Pariaman Branch. The study used a quantitative explanatory approach with a random sampling technique on 221 respondents and analyzed using SEM-PLS. The results show that price value, habit, and digital literacy have a significant positive effect on continued usage intention, while performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, and perceived risk are not significant. Continued usage intention, facilitating conditions, and habit have a direct effect on continued usage behavior. These findings confirm that the continued use of the Ollin application is more determined by the perceived value, habits, and digital capacity of users than initial functional factors, so that development strategies need to be focused on creating real value and strengthening digital literacy.

DOI: https://doi.org/10.55927/fjmr.v5i3.32
ISSN-E: 2829-8896
https://journalfjmr.my.id/index.php/fjmr

INTRODUCTION

The development of digital technology has brought about significant changes in various aspects of life, including the banking sector. Technological advancements have made people increasingly accustomed to using practical, fast, and secure digital financial services (Gaol et al., 2025). This situation encourages financial institutions to continue innovating to meet increasingly dynamic customer needs. One form of this innovation is the development of digital banking services**,** namely a technology-based banking system that allows customers to conduct various financial transactions without having to visit a branch office (Maharani & Sari, 2025).

This shift in financial service consumption patterns did not occur suddenly, but rather resulted from increased public adoption of digital technology in recent years (Putri & Lutfianti, 2024). Banking innovations that offer ease of transactions through *mobile banking* are a key driving factor in this transformation (Ardianto et al., 2024).

This shift in financial service consumption patterns did not occur suddenly, but rather resulted from increased public adoption of digital technology in recent years (Putri & Lutfianti, 2024). Banking innovations that offer ease of transactions through *mobile banking* are a key driving factor in this transformation (Ardianto et al., 2024).

This development can be seen in the growing trend in the number of *mobile banking users* in Indonesia, which continues to increase year after year. The following data clearly illustrates how this shift in customer behavior has occurred over the past six years.

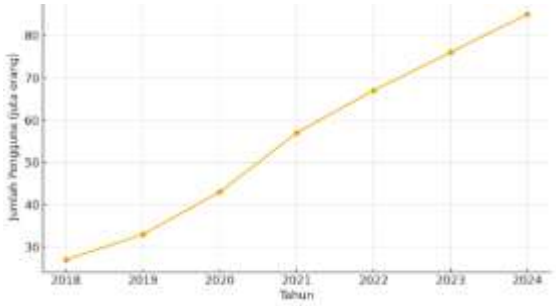

Figure 1. Growth of Mobile Banking Users in Indonesia (2018–2024)
Source: We Are Social & Hootsuite report (2024)

Based on the data above, it can be seen that the number of *mobile banking users* in Indonesia has increased very rapidly over the past six years. In 2018, the number of users was recorded at around 27 million**,** then increased consistently to reach more than 85 million users in 2024**.** This surge indicates that *mobile banking services* are increasingly accepted and have become an important part of people's financial activities (Syahputra & Suparno, 2022).

Bank Indonesia recorded that throughout April 2023, the value of digital banking transactions in Indonesia reached IDR 4,264.8 trillion, a 158% increase compared to April 2018 (Databoks, 2023). This increase indicates that the public

is increasingly open to using digital services in their daily financial activities (Ayuningtyas & Sufina, 2023).

The increasing trend in digital banking transactions also aligns with changes in customer behavior. Between 2018 and 2024, digital banking service users increased from 35% to 85%, while branch visits decreased from 65% to 15% (OJK, 2024). This situation indicates that people are increasingly prioritizing the ease, convenience, and efficiency of digital services in their daily financial activities, although individual utilization levels are not yet fully optimal. For more complete information, see the following figure:

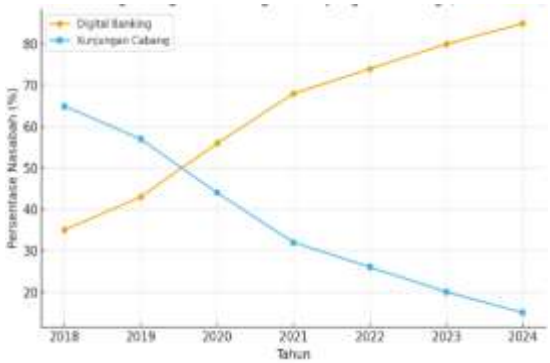

Figure 2. Comparison of Digital Banking Users vs Branch Visits (2018–2024)
Source: Indonesia Digital Banking Report 2024.

A similar phenomenon also occurred at Bank Nagari**,** a regional development bank in West Sumatra that is strengthening its digital transformation (Rahman, 2024). As part of its service modernization strategy, Bank Nagari began operating the *Ollin by Nagari application* **in** 2023**,** aimed at facilitating financial transactions for the public. This application began to be actively used by customers at various branches for services such as transfers, bill payments, mobile phone credit purchases, and e-wallet top-ups. The official launch *(grand launching)* of the Ollin application was carried out in 2025**,** coinciding with the strengthening of digital infrastructure and the integration of the banking service system as a whole. The presence of Ollin is an important milestone for Bank Nagari in supporting the government's vision towards *a cashless society* and increasing competitiveness amidst the advancement of the digital financial industry.

However, even though the digital era has encouraged banking activities to increasingly rely on applications as previously explained, the reality shows that the level of Ollin utilization by customers still faces a number of challenges.

The following table shows a comparison of the activity levels of Ollin application users at several Bank Nagari branches.

Table 1. Online Application Growth Data by Nagari per Branch Office

Bank Nagari Branch	Number of Users	Users Transact	Active Percentage (%)	Transaction Amount (Rp Billion)
Padang Main Branch	27,008	19,494	72.18	146.8
Bukittinggi	21,722	13,881	63.90	96.9

Payakumbuh	20,211	13,969	69.12	84.6
Solok	16,115	11,511	71.43	82.5
Pariaman	**11,204**	**7,503**	**66.97**	**49.4**

Source: Online Position Report as of September 15, 2025, Bank Nagari

The data shows that the level of activity and transactions among Online users at the Pariaman Branch remains relatively low compared to other branches. This situation indicates that the existence of technology alone is not enough to ensure customers continue to use digital services sustainably (Rafika et al., 2024). The success of Bank Nagari's digital transformation is determined not only by system readiness, but also by the extent to which customers understand the application's benefits, find it easy to operate, are confident in its security, and possess sufficient digital skills to use it consistently.

To understand this phenomenon, this study adopted *the Unified Theory of Acceptance and Use of Technology 2* (UTAUT2) model developed by Venkatesh et al. (2012). This model explains that technology use behavior is influenced by seven main aspects: *performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value,* and *habit,* which play a role in both initial acceptance and long-term sustainability of use.

In addition to the UTAUT2 construct, the continued use of digital financial technology is also influenced by perceived risk, particularly regarding security, personal data protection, potential transaction errors, and system reliability (Priambodo & Prabawani, 2016; Bland et al., 2024). Another relevant factor is digital literacy, which is an individual's ability to understand and utilize technology effectively (Sari & Setiawan, 2023), which makes it easier for users to navigate applications and overcome technical obstacles.

Overall, the continued use of the Ollin by Nagari app is influenced by a combination of technological factors, perceived risk, and user competency. Therefore, Bank Nagari's digital transformation depends not only on system quality but also on efforts to build trust, improve customer digital literacy, and provide secure and user-friendly services.

This study aims to analyze the influence of UTAUT2, perceived risk, and *digital literacy* on *continued usage behavior* with *continued usage intention* as a mediating variable among customers of Bank Nagari Pariaman Branch. This study not only tests the direct relationship between variables but also examines the strategic role of *continued usage intention* in bridging user beliefs, perceptions, and abilities towards continued usage behavior of the Ollin application. This research is important because the success of digital banking transformation is not only measured by the level of initial adoption, but also by the consistency and intensity of long-term use. Without a comprehensive understanding of the factors that shape continued usage intention and behavior, digital service development risks not being optimal in creating loyalty and application integration in customer financial activities.

LITERATURE REVIEW

Cultural Transmission and Evolution

Cultural transmission theory explains that values, habits, and behavioral patterns, including digital technology usage, are passed down and learned through cross-generational social learning, not solely through biological factors (Cavalli Sforza & Feldman, 1981; Boyd & Richerson, 1982). This transmission occurs through vertical, horizontal, and oblique pathways, where individuals internalize norms and practices through family, peer groups, and formal institutions. This process is reinforced by social learning mechanisms such as *observational learning, imitation, modeling,* and *reinforcement* (Bandura, 1977; 1986), as well as cultural selection biases such as *prestige bias, conformity bias,* and *content bias* (Boyd & Richerson, 2005). In modern society, culture is also transmitted through digital technology, so the use of applications such as mobile banking is not only based on rational considerations, but also on a process of cultural internalization influenced by social interactions and the digital ecosystem (Mesoudi, 2008). Thus, the sustainability of application use can be understood as a result of socio-cultural dynamics that shape digital habits and practices in society.

Unified Theory of Acceptance and Use of Technology 2 (UTAUT2)

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) developed by Venkatesh et al. (2012) is an extension of UTAUT (Venkatesh et al., 2003) designed to explain the acceptance and use of technology in a consumer context. This model integrates cognitive, social, and behavioral factors in shaping the intention and behavior of technology use. UTAUT2 consists of seven main constructs, namely *performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value,* and *habit.*

Performance expectancy refers to the belief that technology can improve performance or productivity (Venkatesh et al., 2012; Dwivedi et al., 2019), while *effort expectancy* describes the level of ease of use perceived by an individual (Davis, 1989; Venkatesh et al., 2012). *Social influence* explains the extent to which individuals are motivated to use technology due to the influence of important people around them (Ajzen, 1991; Venkatesh et al., 2012).

Finally, habit describes an individual's tendency to use technology automatically, formed through repeated experiences (Limayem et al., 2007; Venkatesh et al., 2012). Habits play a crucial role in bridging intentions and actual behavior, particularly in the context of sustained use. Overall, UTAUT2 offers a comprehensive conceptual framework for understanding how individuals adopt and maintain technology use, as it incorporates the dimensions of performance benefits, convenience, social influence, system support, enjoyment, economic value, and habit into a single, integrated theoretical structure (Tamilmani et al., 2021).

Perceived Risk

Perceived Risk is an individual's subjective assessment of the likelihood of loss or negative consequences in situations containing uncertainty (Taylor, 1974;

Slovic, 2016). This concept is rooted in the idea that every decision to use a product or service involves two main components: uncertainty *and* possible consequences *(*Dowling, 1986; Mitchell, 1999; Stone & Grønhaug, 1993). In classical literature, perceived risk is understood as a multidimensional construct that includes financial, performance, time, psychological, social, and physical risks (Dholakia, 1997; Peter & Tarpey, 1975; Forsythe & Shi, 2003).

As digitalization advances, the risk dimension extends to technology-based services such as *mobile banking* and *e-services,* encompassing risks to data security, privacy, and system reliability (Featherman & Pavlou, 2003; Cheah et al., 2011). In the context of digital banking applications such as Ollin by Nagari, perceived risk stems from concerns about transaction security, personal data protection, and potential system disruptions. The higher the perceived risk, the more likely individuals are to delay or avoid using the technology (Kaur & Arora, 2021; Elasaria, 2024; Eka et al., 2025).

Based on the results of theoretical studies and previous research findings, *perceived risk* in this study is measured through four main indicators, namely:

1. Data security risks
2. Privacy risks
3. Financial risk
4. System performance risk

These four indicators describe various dimensions of risk that can influence user acceptance of digital technology.

Continued Usage Intention

Continued Usage Intention (CUI) is a development of *the behavioral intention* (BI) concept that no longer focuses on initial readiness to adopt technology, but on the user's commitment to maintain continuous use after the adoption phase (Ajzen, 1991; Venkatesh et al., 2003; Shaikh, 2016; Foroughi et al., 2019). Rooted in the Theory of Reasoned Action and the Theory of Planned Behavior, CUI is understood as a major predictor of actual long-term usage behavior (Fishbein & Ajzen, 1975; Ajzen, 1991), and within the UTAUT2 framework, it functions to bridge the influence of performance expectancy, effort expectancy, social influence, hedonic motivation, price value, facilitating conditions, and habit on continued usage behavior (Venkatesh et al., 2012; Alalwan et al., 2017). In the context of digital banking applications such as Ollin by Nagari, CUI reflects the user's willingness and commitment to continue using the service based on an evaluation of benefits, convenience, security, positive experiences, as well as consideration of risks and social support (Albashrawi & Motiwalla, 2019; Farzin et al., 2021; Qamar & Qureshi, 2022), where the stronger the continuance intention, the greater the likelihood of forming routine usage behavior and application integration in daily financial activities (Avornyo et al., 2019; Pratama, 2024).

Based on the theory and results of previous research (Kilani et.al, 2023), *continued usage intention* (CUI) can be measured through three main indicators, namely:

a. future usage intentions
b. Commitment to sustainable use
c. tendency to recommend

These three indicators describe the extent to which users have a strong and sustainable intention to use technology.

Continued Usage Behavior

Continued Usage Behavior (CUB) is a development of the Use Behavior concept in the technology acceptance model that emphasizes the consistency, frequency, intensity, and integration of technology use continuously after the initial adoption phase (Venkatesh et al., 2003; Venkatesh et al., 2012; Fithriya et al., 2019). In contrast to initial use, CUB represents a tangible manifestation of *continued usage intention* in the form of routine and repeated actions over the long term, thus becoming an indicator of the true effectiveness of technology adoption (Farzin et al., 2021; Zhang et al., 2021).

CUB encompasses aspects of access frequency, duration of use, depth of interaction with features, and the level of application integration in the user's daily activities, where a high level of CUB indicates motivation, comfort, and formed habits (Williams et al., 2015; Kaplan & Gürbüz, 2021). In the context of digital banking applications such as Ollin by Nagari, CUB is reflected in customer consistency in conducting transactions, checking balances, paying bills, and utilizing other features as part of a financial routine, so its measurement is important for identifying gaps between intentions and actual behavior and designing strategies to increase loyalty and long-term usage (Tian & Yang, 2024).

Based on the literature by Kilani et.al (2023), the Continued Usage Behavior indicator can be described as follows:

a. Frequency of Use
b. Duration of Use
c. Consistency of Use

Furthermore, CUB emphasizes the depth of user interaction with application features, not just the frequency of access.

Digital Literacy

The concept of literacy was initially understood as the ability to access, understand, evaluate, and use information effectively in various life contexts (OECD, 2019), which later evolved into digital literacy, namely the capacity to access, manage, integrate, evaluate, create, and communicate information through digital technology safely, ethically, and responsibly (UNESCO, 2018). Digital literacy encompasses not only technical skills, but also cognitive and social abilities in navigating the digital ecosystem critically and adaptively (Chung & Yoo, 2021; Eguz, 2021; Giannikas, 2022). Conceptually, digital literacy is a multidimensional competency that encompasses technical, evaluative, and decision-making aspects based on digital information (Ahsan et al., 2022), and has been shown to play a role in increasing readiness, trust, and inclusion in the use of *fintech* and digital financial services (Islam & Khan, 2024; Adel, 2024).

In the context of digital organizations and services, digital literacy also influences continued usage intentions and individual performance (Jang et al., 2020; Marsh, 2021; Nikou et al., 2022; Suryani et al., 2022; Kabakus et al., 2025). Therefore, when using digital banking applications such as Ollin by Nagari, a high level of digital literacy enables users to operate features correctly, understand data risks and security, and adapt to services effectively, thus strengthening continued usage intentions and supporting long-term sustainability.

Conceptual Framework

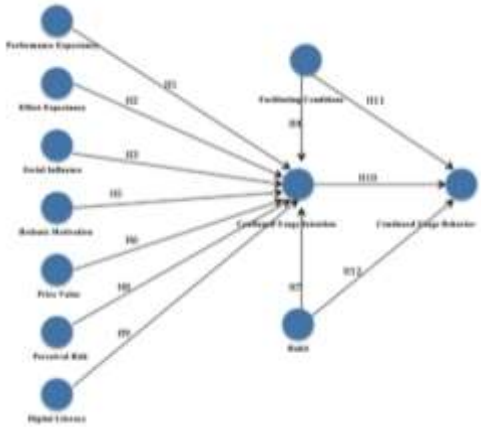

Figure 3. Conceptual Framework of the Research

Various previous studies have shown that UTAUT2 has high capability in explaining technology adoption behavior in various fields. This research attempts to focus on understanding why Bank Nagari customers continue to use the Ollin application in the long term, not just trying it once or twice. To answer this question, this study uses the UTAUT2 theoretical framework, which explains various factors that encourage someone to continue using technology. Study also considers perceived risk and literacy. digital to see what factors make someone decide to continue using the application continuously

Research Hypothesis

This research will answer the hypotheses that have been formulated, including:

H1: *Performance Expectancy* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.

H2: *Effort Expectancy* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.

H3: *Social Influence* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.

H4: *Facilitating Conditions* have a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.

H5: *Hedonic Motivation* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.

H6: *Price Value* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.
H7: *Habit* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.
H8: *Perceived Risk* has a negative effect on *Continued Usage Intention* in using the Ollin by Nagari application.
H9: *Digital Literacy* has a positive effect on *Continued Usage Intention* in using the Ollin by Nagari application.
H10: *Continued Usage Intention* has a positive effect on *Continued Usage Behavior* in using the Ollin by Nagari application.
H11: *Facilitating Conditions* have a positive effect on *Continued Usage Behavior* in using the Ollin by Nagari application.
H12: *Habit* has a positive influence on *Continued Usage Behavior* in using the Ollin by Nagari application.
H13: *Continued Usage Intention* mediates the influence of UTAUT2, *Digital Literacy* and Perceived Risk on *Continued Usage Behavior* in using the Ollin by Nagari application.

METHODOLOGY

This study uses a quantitative approach with an explanatory *research type* . This quantitative approach is used because this study attempts to measure the relationship between variables numerically and analyze it using inferential statistical techniques (Sugiyono, 2019). This research was conducted in 2025, coinciding with the official launch of the Ollin by Nagari application and the increasing use of digital services within Bank Nagari. The research location focused on the Bank Nagari Pariaman Branch. In this study, the population in question is all customers of Bank Nagari Pariaman Branch who have used the Ollin by Nagari application with the sampling technique used is *random sampling*. The number of samples in this study was determined based on the "*rule of thumb*" in *Structural Equation Modeling analysis* based on *Partial Least Squares* (SEM-PLS), which is a minimum of ten times the number of indicators in the construct with the most indicators (Hair et al., 2019) . Based on this calculation, 221 respondents were obtained. Data collection was conducted using a questionnaire distributed to customers randomly using Google Forms. The data obtained will be analyzed using a SEM approach assisted by the Smart-PLS application.

RESEARCH RESULT

Data Description

Data were collected through online questionnaires (Google Forms) distributed to Bank Nagari Pariaman Branch customers who had used the Ollin application. Responses reflect users' actual experiences with digital banking services. As the survey was distributed openly without a fixed target, the response rate could not be determined; therefore, the study emphasizes respondent eligibility and data suitability for analysis.

Table 2. Response Rate

Information	Respondents
Amount questionnaire Which Distributed	221
Amount questionnaire Which Returns	221
Amount questionnaire filled in with complete and can be processed	221
Level return questionnaire	**100%**

Based on the questionnaire summary table, it can be seen that during the data collection period, 221 questionnaires were received via *Google Forms* . All received questionnaires were deemed complete and met the criteria for further analysis, thus all 221 respondents were used as the research sample.

***Common Data Bias* Analysis**

Before testing the relationships between variables and testing the hypotheses, this study first conducted a *Common Method Bias* (CMB) test to determine the potential for common method bias, where respondents' answers do not fully reflect the construct being tested. The test was conducted using the Harman's *Single Factor Test* approach. and *Variance Inflation Factor* (VIF) in the SEM-PLS model. Data are declared free from CMB if the percentage of variance explained by one factor does not exceed 50%, and the VIF value for each indicator is less than 3.3 and a maximum of 5. The results of testing related to potential data bias in this study, based on the data processing that has been done, the dominant CMB data is below 3.3, and some of them are in the range of 3.3 - 4, so it can be concluded that the data is free from CMB. And it is suitable for use in further analysis

Outer Model Analysis

The outer model analysis aims to show that all constructs have met the validity criteria. and reliability . The outer loading indicator value is above the minimum limit, the AVE value exceeding 0.5 and Cronbach's Alpha and *Composite Reliability* greater than 0.7. In addition, discriminant validity testing using the Fornell–Larcker criteria This indicates that each construct is discriminant, so the measurement model is deemed suitable for further analysis in the structural model. The results of this measurement can be described as follows:

a. Validity Test

Validity testing aims to measure the quality of the instruments used and show validity something instrument as well as For measure how much Good a concept can defined by something size (Hair et al., 217).

1. Convergent Validity

Convergent validity aims to assess the extent to which the indicators used are able to represent the latent construct being measured. Convergent validity testing is conducted by examining the outer loading value of each indicator against the latent variable calculated using SmartPLS. An indicator is declared valid if it has

an outer loading value ≥ 0.7**,** indicating a strong correlation with the construct being measured. The following data was obtained:

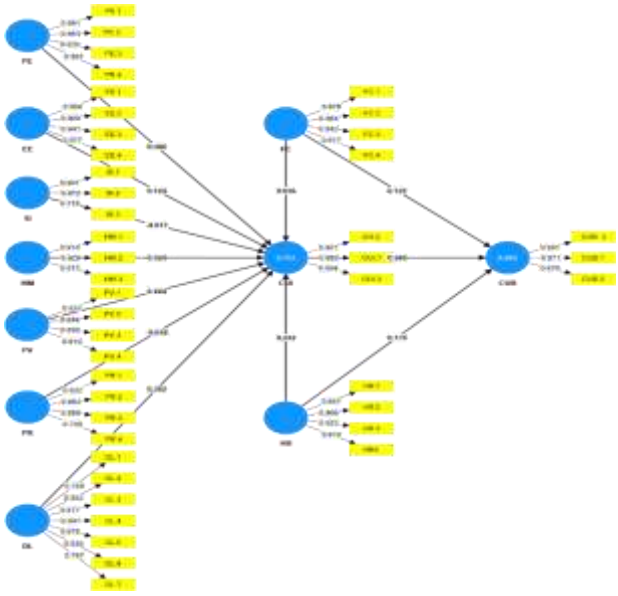

Figure 4. Outer Loading Results
Source: processing data from SmartPLS (2025)

Based on the data in the image, the outer loading results show that there is 1 invalid statement item in the Y variable, namely the outer loading value <0.7 (0.626), namely in the *Continued Usage Behavior indicator* 2. So it is necessary to drop/delete 1 invalid statement item to be able to proceed to the next data testing stage.

Average Variance Extraced (AVE)

Validity evaluation can be performed using *the Average Variance Extracted* (AVE) method for latent variables. The AVE value describes the extent of variable diversity that a latent construct can possess. An AVE value of at least 0.5 indicates a measure of variance. *convergent validity* that Good. This means that latent variables can explain on average more than half of the variance of their indicators. Mark AVE after in *drop* For each variables can seen in the following table:

Tabel 3. Hasil AVE Setelah di Drop

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Continued Usage Intention	0,757	0,811	0,858	0,671
Contiued Usage Behavior	0,887	0,891	0,930	0,816
Digital Literacy	0,927	0,931	0,941	0,695
Effort Expectancy	0,928	0,930	0,949	0,822
Facilitating Condition	0,908	0,912	0,936	0,785
Habbit	0,929	0,932	0,950	0,825
Hedonic Motivation	0,888	0,891	0,931	0,818
Perceived Risk	0,883	0,884	0,919	0,740

Performance Expectancy	0,921	1,015	0,934	0,782
Price Value	0,883	0,889	0,920	0.741
Social Influence	0.816	0.864	0.890	0.730

Based on the table, the value of each variable (variables X, Z, and Y) is greater than 0.5. This proves that all constructs used in this study have good validity values.

Discriminant Validity Test

Discriminant validity is assessed by observing *cross-loading values* . This is done by observing whether latent constructs predict their block sizes better than the sizes of other blocks. The following figure shows *the discriminant validity results* from *the cross-loading values* between indicators and each construct.

Tabel 4. Hasil Fornel Larcker Criterion

	CUB	**CUI**	**DL**	**EE**	**FC**	**HB**	**HM**	**PE**	**PR**	**PV**	**SI**
CUB	0,819										
CUI	0,799	0,903									
DL	0,737	0,701	0,834								
EE	0,665	0,713	0,543	0,907							
FC	0,681	0,742	0,617	0,794	0,886						
HB	0,720	0,788	0,595	0,742	0,775	0,909					
HM	0,704	0,737	0,551	0,747	0,828	0,833	0,904				
PE	0,640	0,695	0,468	0,790	0,743	0,762	0,801	0,860			
PR	-0,083	-0,150	-0,031	-0,083	-0,070	-0,142	-0,102	-0,097	0,884		
PV	0,734	0,771	0,651	0,640	0,721	0,769	0,734	0,668	-0,105	0,861	
SI	0,380	0,370	0,324	0,385	0,384	0,428	0,384	0,342	0,048	0,424	0,854

Source: processing data from SmartPLS (2025)

From the table, it can be seen that the Fornell-Lorcker results specifically, the square root of each AVE construct must be greater than the highest correlation of the other construct. It can be seen in the model that the variables meet the criteria because the results of the AVE squared score are higher than the correlation value between the two variables.

b. Reliability Test

Reliability testing indicates the extent to which a measuring instrument is reliable or trustworthy. This study used *Composite Reliability* and *Cronbach's Alpha coefficient measurement techniques.*

1. Composite Reliability

Composite reliability tests are carried out to measure the extent to which the measuring instrument can trusted. *Composite reliability* assessed more Good if has a *composite reliability value* > 0.6. The following are the *composite reliability values* of each variable:

Table 5. Composite Reliability Test Results

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Continued Usage Intention	0,757	0,811	0,858	0,671
Contiued Usage Behavior	0,887	0,891	0,930	0,816
Digital Literacy	0,927	0,931	0,941	0,695
Effort Expectancy	0,928	0,930	0,949	0,822
Facilitating Condition	0,908	0,912	0,936	0,785
Habbit	0,929	0,932	0,950	0,825
Hedonic Motivation	0,888	0,891	0,931	0,818
Perceived Risk	0,883	0,884	0,919	0,740
Performance Expectancy	0,921	1,015	0,934	0,782
Price Value	0,883	0,889	0,920	0,741
Social Influence	0,816	0,864	0,890	0.730

Source: processing data from SmartPLS (2025)

The table shows that the composite reliability values for all variables are above 0.7. Thus, these results indicate that each variable has met the composite reliability requirement and has a good level of reliability.

Cronbach Alpha Test

Composite reliability testing can be strengthened by using *Cronbach's alpha value*. A variable is considered reliable if its Cronbach's alpha value is >0.6. Based on the table above, the Cronbach's alpha value for all variable indicators is greater than 0.6. Therefore, these results indicate that all variables in this study have good reliability.

Inner Model Analysis

After the measurement model is declared appropriate, the next stage is evaluating the structural model *(inner model).* In this study, the inner model was tested through an analysis of the coefficient of determination (R-Square) to assess the ability of the independent variables to explain the dependent variable.

a. Model Test (R-Square)

The value of *R-square* indicates how much the dependent variable is influenced by other variables. According to Hair et al (2017), if the *R-square value* is > 0.75, it is included in the category strong, For mark R-square > 0.50 including category moderate And *R- square* > 0.25 is considered weak. The following are the R-square values for each tested variable:

Table 6. R-Square Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
CUB	0.665	0.673	0.065	10,308	0.000
CUI	0.753	0.766	0.036	21,166	0.000

Source: processing data from SmartPLS (2025)

Based on the results obtained, it can be concluded that the structural model in this study has strong explanatory power, especially for the CUI variable.

b. *R-Square Adjust*

Table 7. R-Square Adjustment Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
CUB	0.661	0.669	0.065	10,097	0.000
CUI	0.742	0.756	0.037	20,016	0.000

To ensure that the R-Square value is not biased due to the relatively large number of independent variables, the Adjusted R-Square value is used as an additional indicator. The relatively small difference between the R-Square and Continued Usage Intention values indicates that the research model is stable, does not experience overfitting, and the independent variables used are relevant in explaining the endogenous variables.

Hypothesis Testing

Next, a hypothesis test is carried out, also known as a path coefficient test, which is reviewed through the T-Values and P-Values used as a basis for hypothesis testing to determine the direction and significance of the influence between constructs.

Table 8. Results of the Direct Effect Hypothesis Test

Hypothesis		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Note
H1	**PE -> CUI**	0.080	0.085	0.062	1,279	0.201	×
H2	**EE -> CUI**	0.124	0.120	0.070	1,756	0.079	×
H3	**SI -> CUI**	-0.017	-0,013	0,038	0,438	0,661	×
H4	**FC -> CUI**	0,056	0,053	0,102	0,552	0,581	×
H5	**HM -> CUI**	0,024	0,026	0,090	0,264	0,792	×
H6	**PV -> CUI**	0,224	0,223	0,080	2,807	0,005	✓
H7	**HB -> CUI**	0,242	0,238	0,078	3,119	0,002	✓
H8	**PR -> CUI**	0,262	0,265	0,058	4,500	0,171	×
H9	**DL -> CUI**	0.267	0.269	0.052	5.151	0.000	✓
H10	**CUI -> CUB**	0,568	0,569	0,074	7,703	0.000	✓
H11	**FC -> CUB**	0.152	0.149	0.076	2,005	0.045	✓
H12	**HB -> CUB**	0.317	0.315	0.079	4,010	0.000	✓

Source: processing data from SmartPLS (2025)

Based on the results of hypothesis testing, the variable *Continued Usage Intention* It was found that *Price Value, Habit,* and *Digital Literacy* had a positive and significant effect, so that H6, H7, and H9 were accepted. These findings indicate that continued usage intention is formed when users feel the benefits are commensurate with the costs incurred, are accustomed to using the application, and have adequate digital capabilities. In contrast, *Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, and*

Perceived Risk did not have a significant effect on *Continued Usage Intention* (H1, H2, H3, H4, H5, and H8 were rejected), which indicates that performance benefits, convenience, social influence, facility support, enjoyment aspects, and perceived risk have not been the main factors in forming continued usage intention.

Regarding the variable *Continued Usage Behavior*, the results show that *Continued Usage Intention, Facilitating Conditions,* and *Habit* have a positive and significant effect (H10, H11, and H12 are accepted). This finding confirms that actual usage behavior is influenced by strong intentions, adequate facility support, and habits that have been internalized in the user's routine. Thus, although not all constructs influence intention, habit factors and the availability of facilities still play an important role in encouraging the realization of continued application use.

Mediation Test

Testing for mediation effects is conducted by examining the significance of indirect effects *through* a bootstrapping procedure. This evaluation aims to ensure that the structural relationships and mediation mechanisms established in the research model can be empirically tested.

Table 9. Results of the Mediation Effect Test (Indirect Effect)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
DL -> CUI -> CUB	0.149	0.153	0.045	3,287	0.001
EE -> CUI -> CUB	0.070	0.069	0.042	1.681	0.093
FC -> CUI -> CUB	0.032	0.028	0.057	0.558	0.577
HB -> CUI -> CUB	0.138	0.135	0.046	2.984	0.003
HM -> CUI -> CUB	0.014	0.016	0.052	0.262	0.794
PE -> CUI -> CUB	0.045	0.048	0.036	1.254	0.210
PR -> CUI -> CUB	-0.033	-0.033	0.025	1,341	0.180
PV -> CUI -> CUB	0.128	0.127	0.049	2,591	0.010
AND -> WHO -> CUB	-0.009	-0.008	0.022	0.432	0.666

specific indirect effects testing using bootstrapping in SmartPLS, *Continued Usage Intention* (CUI) does not mediate the influence of *Effort Expectancy, Facilitating Conditions, Hedonic Motivation, Performance Expectancy, Perceived Risk,* and *Social Influence* on *Continued Usage Behavior* (CUB), because all p-values > 0.05. This indicates that continued usage intention has not been able to become a significant mediating mechanism for these constructs in influencing actual usage behavior. In contrast, CUI is proven to significantly mediate the influence of *Digital Literacy,* Habit, and Price Value on CUB ($p < 0.05$) with a positive relationship direction. This finding indicates that digital capabilities, usage habits, and perceived economic value form strong usage intentions, which then encourage continued usage behavior. Thus, the mediation hypothesis is partially accepted, where CUI only plays a role as a mediator in the relationship between

Digital Literacy, Habit, and Price Value on *Continued Usage Behavior,* but not on other UTAUT2 constructs or *Perceived Risk.*

DISCUSSION

This study confirms that not all UTAUT2 constructs equally influence continued usage intention and behavior in digital banking applications such as Ollin by Nagari. In the post-adoption stage, performance expectancy and effort expectancy are no longer primary determinants, as they are perceived as basic standards. Similarly, social influence and facilitating conditions do not significantly affect intention, indicating that continued usage decisions are more individual and autonomous. Perceived risk is also insignificant, reflecting stable user trust in system security.

In contrast, price value, habit, and digital literacy play more strategic roles. Perceived value drives intention when benefits outweigh costs, consistent with Kilani et al. (2023), who found that performance expectancy, effort expectancy, price value, and habit significantly influence continuance intention and behavior. Habit emerges as the strongest predictor of both intention and actual usage, supporting findings by Farzin et al. (2021), Tamilmani et al. (2021), and Kilani et al. (2023). Meanwhile, social influence weakens in the post-adoption stage. Digital literacy enhances users' capability and confidence, thereby increasing continued usage intention, in line with Akram et al. (2023).

Although facilitating conditions do not directly affect intention, they still influence actual usage behavior, supporting Penney et al. (2022) and Liu et al. (2025), who highlight their indirect role through trust and user experience. These findings confirm that continuance intention acts as a key link between perception and behavior, where sustained usage is shaped by perceived value, habit, and digital capability. Therefore, service strategies should emphasize value creation, habit formation, and strengthening digital competence.

ADVANCED RESEARCH

This study has several limitations. First, the use of self-reported survey data may introduce subjective bias due to respondents' perceptions and honesty. Second, the cross-sectional design cannot capture changes in intention and usage behavior over time. Third, the study is limited to a single organizational context and region, restricting generalizability. Fourth, the sample is dominated by salaried Bank Nagari customers, which may result in relatively homogeneous usage patterns. Finally, the model only includes UTAUT2 constructs, perceived risk, and digital literacy, excluding other relevant factors such as service quality, institutional trust, bank image, and regulatory aspects. Additionally, the reliance on a single quantitative approach limits the exploration of user experiences and motivations. Future research should expand the sample scope, apply longitudinal designs, incorporate additional variables, and combine quantitative and qualitative methods to provide a more comprehensive understanding of sustainable digital banking usage.

ACKNOWLEDGEMENT

The author expresses sincere gratitude to his supervisor for his consistent guidance, direction, and scientific input from the planning stage through the completion of this research. He also thanks the examiners for their constructive criticism and suggestions that helped improve the quality of this research. Furthermore, he appreciates the support of fellow academics who provided valuable insights and assistance throughout the research process, enabling this research to be successfully completed.

REFERENCES

Adel, N. (2024). The impact of digital literacy and technology adoption on financial inclusion in Africa, Asia, and Latin America. *Heliyon*, *10*(24).

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International journal of information management*, *37*(3), 99-110.

Albashrawi, M., & Motiwalla, L. (2019). Privacy and personalization in continued usage intention of mobile banking: An integrative perspective. *Information Systems Frontiers*, *21*(5), 1031-1043.

Ardianto, R., Ramdhani, R. F., Dewi, L. O. A., Prabowo, A., Saputri, Y. W., Lestari, A. S., & Hadi, N. (2024). Transformasi digital dan antisipasi perubahan ekonomi global dalam dunia perbankan. *MARAS: Jurnal Penelitian Multidisiplin*, *2*(1), 80-88.

Avornyo, P., Fang, J., Odai, R. O., Vondee, J. B., & Nartey, M. N. (2019). Factors affecting continuous usage intention of mobile banking in Tema and Kumasi. *International Journal of Business and Social Science*, *10*(3), 114-130.

Ayuningtyas, M., & Sufina, L. (2023). Pengaruh Penggunaan Mobile Banking, Internet Banking, dan Atm terhadap Kinerja Keuangan Perbankan (Studi Kasus Sektor Bank Konvensional yang Terdaftar di Bursa Efek Indonesia) Tahun 2017-2021. *Jurnal Keuangan Dan Perbankan*, *19*(2), 119-130.

Bland, E., Changchit, C., Changchit, C., Cutshall, R., & Pham, L. (2024). Investigating the components of perceived risk factors affecting mobile payment adoption. *Journal of Risk and Financial Management*, *17*(6), 216.

Boyd, R., & Richerson, P. J. (1982). Cultural transmission and the evolution of cooperative behavior. *Human ecology*, *10*(3), 325-351.

Cavalli-Sforza, L. L., & Feldman, M. W. (1981). *Cultural transmission and evolution: A quantitative approach* (No. 16). Princeton University Press.

Cheah, C. M., Teo, A. C., Sim, J. J., Oon, K. H., & Tan, B. I. (2011). Factors affecting Malaysian mobile banking adoption: An empirical analysis. *International Journal of Network and Mobile Technologies*, *2*(3), 149-160.

Chung, J., & Yoo, J. (2021). Skills for life: Digital literacy.

Davis, F. D. (1989). Technology acceptance model: TAM. *Al-Suqri, MN, Al-Aufi, AS: Information Seeking Behavior and Technology Adoption*, *205*(219), 5.

Dholakia, U. M. (1997). An investigation of the relationship between perceived risk and product involvement. *Advances in consumer research*, *24*(1).

Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of consumer research*, *21*(1), 119-134.

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). *Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. Information Systems Frontiers, 21*(3), 719–734. https://doi.org/10.1007/s10796-017-9774-y

Eguz, S. (2021). Digital literacy perspective: reflections on education. *The Eurasia Proceedings of Educational and Social Sciences*, *20*, 58-63.

Eka, I. G. N. A. G., Kusuma, T., & Wijana, M. D. (2025). *PERSEPSI RISIKO DAN SKALA PENGUKURANNYA*. CV. Intelektual Manifes Media.

Elasaria, R. (2024). Preference digital wallet by generation Z with the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model approach and perceived risk. *European Journal of Management Issues*, *32*(1), 3-13.

Farzin, M., Sadeghi, M., Yahyayi Kharkeshi, F., Ruholahpur, H., & Fattahi, M. (2021). Extending UTAUT2 in M-banking adoption and actual use behavior: does WOM communication matter?. *Asian Journal of Economics and Banking*, *5*(2), 136-157.

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International journal of human-computer studies*, *59*(4), 451-474.

Foroughi, B., Iranmanesh, M., & Hyun, S. S. (2019). Understanding the determinants of mobile banking continuance usage intention. *Journal of Enterprise Information Management*, *32*(6), 1015-1033.

Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, *56*(11), 867-875.

Gaol, A. V. L., Assafira, Q., Putri, K. S. R., & Permana, E. (2025). ANALISIS PEMANFAATAN FINTECH PADA GENERASI Z DALAM BELANJA ONLINE. *Jurnal Manajemen Dan Inovasi*, *6*(2).

Giannikas, C. N. (2022). Developing students' digital literacy skills. *Structural Learning*.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, *31*(1), 2-24.

Hepola, J., Karjaluoto, H., & Shaikh, A. A. (2016). Consumer engagement and behavioral intention toward continuous use of innovative mobile banking applications: a case study of Finland.

Jang, M., Aavakare, M., Kim, S., & Nikou, S. (2020, June). The effects of digital literacy and information literacy on the intention to use digital technologies for learning-A comparative study in Korea and Finland. In *ITS Online Event, 14-17 June 2020, International Telecommunications Society (ITS), Calgary*. Econstor.

Kabakus, A. K., Bahcekapili, E., & Ayaz, A. (2025). The effect of digital literacy on technology acceptance: An evaluation on administrative staff in higher education. *Journal of Information Science*, *51*(4), 930-941.

Kaplan, H. E., & Gürbüz, E. (2021). An extended utaut2 perspective-determinants of mobile banking use intention and use behavior. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *14*(1), 207-227.

Kaur, S., & Arora, S. (2021). Role of perceived risk in online banking and its impact on behavioral intention: trust as a moderator. *Journal of Asia Business Studies*, *15*(1), 1-30.

Limayem, M., Hirt, S. G., & Cheung, C. M. (2007). How habit limits the predictive power of intention: The case of information systems continuance. *MIS quarterly*, 705-737.

Maharani, S., & Sari, M. (2025). Transformasi Digital dalam Layanan Perbankan Menyongsong Era Baru Keuangan Digital. *Jurnal Bisnis dan Manajemen (JURBISMAN)*, *3*(1), 135-150.

Marsh, E. (2021). Understanding the effect of digital literacy on employees' digital workplace continuance intentions and individual performance. In *Research anthology on digital transformation, organizational change, and the impact of remote work* (pp. 1638-1659). IGI Global Scientific Publishing.

Mesoudi, A., & Whiten, A. (2008). The multiple roles of cultural transmission experiments in understanding human cultural evolution. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *363*(1509), 3489-3501.

Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of marketing*, *33*(1-2), 163-195.

Nikou, S., De Reuver, M., & Mahboob Kanafi, M. (2022). Workplace literacy skills—how information and digital literacy affect adoption of digital technology. *Journal of Documentation*, *78*(7), 371-391.

Peter, J. P., & Tarpey Sr, L. X. (1975). A comparative analysis of three consumer decision strategies. *Journal of consumer research*, *2*(1), 29-37.

Pratama, S. F. (2024). Analyzing the determinants of user satisfaction and continuous usage intention for digital banking platform in Indonesia: A structural equation modeling approach. *Journal of Digital Market and Digital Currency*, *1*(3), 267-285.

Priambodo, S., & Prabawani, B. (2016). Pengaruh persepsi manfaat, persepsi kemudahan penggunan, dan persepsi risiko terhadap minat menggunakan layanan uang elektronik (studi kasus pada masyarakat di kota Semarang). *Jurnal Ilmu Administrasi Bisnis*, *5*(2), 127-135.

Putri, D. C. P., & Lutfianti, A. (2024). Peran teknologi finansial FinTech dalam mengubah layanan perbankan tradisional. *Media Hukum Indonesia (MHI)*, *2*(4).

Qamar, A., & Qureshi, M. A. (2022). Impact of behavioral, technological & societal antecedents on continuous usage intention of mobile banking. *ABAC Journal*, *42*(4), 46.

Rafika, S., Hasibuan, A. Q. R., & Gusteti, Y. (2024). The Effect of Trust, Promotion, and Service Quality on the Decision to Use the Ollin Application. *UPI YPTK Journal of Business and Economics*, *9*(3), 37-45.

Shaikh, A. A. (2016). Examining consumers' intention, behavior, and beliefs in mobile banking adoption and continuous usage. *Jyväskylä studies in business and economics*, (172).

Sharabati, A. A. A., Al-Haddad, S., Al-Khasawneh, M., Nababteh, N., Mohammad, M., & Abu Ghoush, Q. (2022). The impact of TikTok user satisfaction on continuous intention to use the application. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(3), 125.

Slovic, P. (2016). Understanding perceived risk: 1978–2015. *Environment: Science and Policy for Sustainable Development*, *58*(1), 25-29.

Stone, R. N., & Grønhaug, K. (1993). Perceived risk: Further considerations for the marketing discipline. *European Journal of marketing*, *27*(3), 39-50.

Sugiyono, P. D. (2019). metode penelitian pendidikan (kuantitatif, kualitatif, kombinasi, R&D dan penelitian pendidikan). *Metode Penelitian Pendidikan*, *67*, 18.

Suryani, U., Arief, M., Bramantoro, S., & Hamsal, M. (2022). The impact of digital literacy and e-commerce adoption with O2O business adoption on the performance of small and medium enterprises. *International Journal of eBusiness and eGovernment Studies*, *14*(2), 199-223.

Syahputra, R., & Suparno, S. (2022). Pengaruh Penggunaan Internet Banking Dan Mobile Banking Terhadap Kinerja Keuangan Perbankan (Studi Pada Perbankan Yang Terdaftar Di Bursa Efek Indonesia 2016-2020). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, *7*(3), 379-388.

Tamilmani, K., Rana, N. P., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, *57*, 102269.

Taylor, J. W. (1974). The role of risk in consumer behavior: A comprehensive and operational theory of risk taking in consumer behavior. *Journal of marketing*, *38*(2), 54-60.

Venkatesh, V., Brown, S. A., Maruping, L. M., & Bala, H. (2008). Predicting different conceptualizations of system use: The competing roles of behavioral intention, facilitating conditions, and behavioral expectation. *MIS quarterly*, 483-502.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.

Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The unified theory of acceptance and use of technology (UTAUT): a literature review. *Journal of enterprise information management*, *28*(3), 443-488.

Wu, P., Zhang, R., Zhu, X., & Liu, M. (2022, January). Factors influencing continued usage behavior on mobile health applications. In *Healthcare* (Vol. 10, No. 2, p. 208). MDPI.

Zhang, Y. B., Zhang, L. L., & Kim, H. K. (2021). The effect of UTAUT2 on use intention and use behavior in online learning platform. *Journal of Logistics, Informatics and Service Science*, *8*(1), 67-81.