Adoption of Integrated Micro Banking Systems in Microfinance Institutions: An Analysis Using the Theory Acceptance Model

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Abstract.

This study examines the adoption of Integrated Micro Banking System technology using the Theory Acceptance Model in PT Lembaga Keuangan Mikro (MFI). Employing quantitative research methods with descriptive and associative approaches, the study focused on users of the Integrated Micro Banking System at PT LKM Garut Regency. A total of 83 individuals were sampled using a census sampling technique. Data was analysed using the Structural Equation Method – Partial Least Square (SEM-PLS). The findings showed that all six hypotheses developed supported the researchers' initial guesses. Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Attitude, directly or indirectly, can explain and predict users' adoption of Integrated Micro Banking System technology. Therefore, these results serve as a valuable reference, especially for the management team of Microfinance Institutions in adopting technology and formulating relevant policies.

Keywords: Microfinance Institutions, Theory Acceptance Model, Integrated Micro Banking System

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1. Introduction

Microfinance Institutions (MFIs) are specialized financial entities designed to offer small-scale business development and community empowerment services, including microloans, deposit management, and non-profit-focused business consulting. In Indonesia, MFIs foster financial inclusion and bolster local economic growth. As of 2023, will be 245 MFIs operating in Indonesia, collectively managing assets valued at Rp. 1.58 trillion, reflecting a 5% increase compared to the previous year. These MFIs consist of 165 conventional institutions and 80 Sharia-compliant ones. MFIs have spread to 23 provinces in Indonesia (ojk.go.id, 2023). One of the challenges MFIs face is improving operational efficiency and accessibility of financial services for customers. Technology, especially information systems, is crucial in improving banking services to be faster, safer, and more convenient for customers, as well as meeting the needs of microbanks such as MFIs.

Management of MFIs must be carried out professionally through the implementation of Good Corporate Governance. An integral component of incorporating information technology into MFIs revolves around utilising the Core Banking System (CBS). This system, primarily adopted by banks and particularly tailored for MFIs, serves to streamline and unify all transactional activities, encompassing the recording of transactions at the front office through to their processing at the back office.CBS also supports several other functions of information management systems, such as accounting, data management, and credit management. Humans, as users, have become one of the most important entities determining the failure and success of CBS implementation. One of Indonesia's CBS applications that is widely used is the Integrated Microbanking System (IBS). IBS is a technology platform that supports MFI operations by providing various services, including customer management, transaction recording, reporting, and others. Nevertheless, the adoption of IBS technology by MFIs is still a question that needs to be answered.

The Technology Acceptance Model (TAM) offers a suitable framework for comprehending and examining the adoption of IBS technology within MFIs operating in Indonesia. Fred Davis first introduced TAM in 1989 (Davis, 1989; Venkatesh & Davis, 2000; Yu Wang et al., 2020; Kang et al., 2021; Go et al., 2020). This model is designed to explain and predict individual behaviour when receiving technology. The TAM concept primarily centres on two key elements: the perceived utility and the perceived ease of use (Yuen et al., 2021; Singh et al., 2020; Paganin et al., 2023). Based on TAM,

the more useful and easy a technology is, the higher the likelihood that individuals will accept and use the technology. In subsequent developments, TAM integrates additional factors to explain variations in technology adoption behavior (Mathew & Soliman, 2021). The TAM framework has been adapted to suit particular contexts, including the integration of mobile technology (Guner & Acarturk, 2020; Shaikh et al., 2020; Rafique et al., 2019), the utilization of e-commerce technology (Dwi Azizah & Nur, 2021), technology implementation in educational settings (Yong Wang et al., 2022; Al-Rahmi et al., 2021; Al-Maatouk et al., 2020; Han & Sa, 2022), and various other scenarios.

By emphasizing perceived usability and ease of use, alongside other pertinent factors, TAM can aid in pinpointing the determinants influencing the acceptance and utilization of IBS technology among managers and staff of MFIs. To attain this objective, scholars elucidate IBS and construct and empirically evaluate conceptual frameworks predicated on the notion that IBS constitutes an innovation, with the selected model encapsulating the primary emphasis on technology acceptance by MFI managers and employees. Specifically, our model extends from the foundational construct of the prevailing technology adoption model, known as TAM, which was developed with a construction that includes trust perception and user behaviour. This research is expected to identify effective strategies to increase the adoption of IBS technology and increase the efficiency and accessibility of financial services for the wider community.

This study makes significant contributions to both theoretical understanding and practical application. To our knowledge, it represents one of the endeavours to fill gaps in current research by presenting a thorough and unified model for technology adoption among MFI managers and employees, specifically focusing on IBS implementation in Indonesia. Therefore, the proposed technology adoption model extends previous research by integrating perceptions of trust and user behaviour. Additionally, the research strives to enhance understanding of technology adoption, offering crucial theoretical advancements to guide future investigations.

2. Literature Review and Hypothesis Development

2.1. Conceptual Framework

The Technology Acceptance Model originated from the Theory of Reasoned Action, initially formulated by Ajzen and Fishbein in 1980 and refined by Davis in 1989. The primary factors impacting the adoption of information

technology include perceived usefulness and ease of use. The TAM model is derived from psychological theory to explain user behavior when utilizing information technology is grounded in user perceptions, attitudes, intentions, and the relationship between user behavior and technology.

TAM is recognized as a conceptual framework employed by numerous researchers to formulate research methodologies geared towards predicting or interpreting human behavior. Presently, TAM holds substantial importance as a technology acceptance model because it can accurately depict the inclination to adopt technology through problem analysis. TAM enables assessing and identifying factors shaping human behavior towards technology usage. Two main factors influence individuals to use new technology, namely, the perception of usability and the perception of ease of use. As stated by Davis (1989), the perception of usability entails individuals' belief in the extent to which implementing a specific system will enhance effectiveness. Furthermore, the perception of ease of use pertains to individuals' assessment of the simplicity of utilizing technology.

This study adapts the TAM model by integrating trust perception and user behavior elements to construct and empirically evaluate the determinants influencing the adoption of IBS technology by MFIs. Hence, this research framework amalgamates multiple constructs, as depicted in Figure 1.

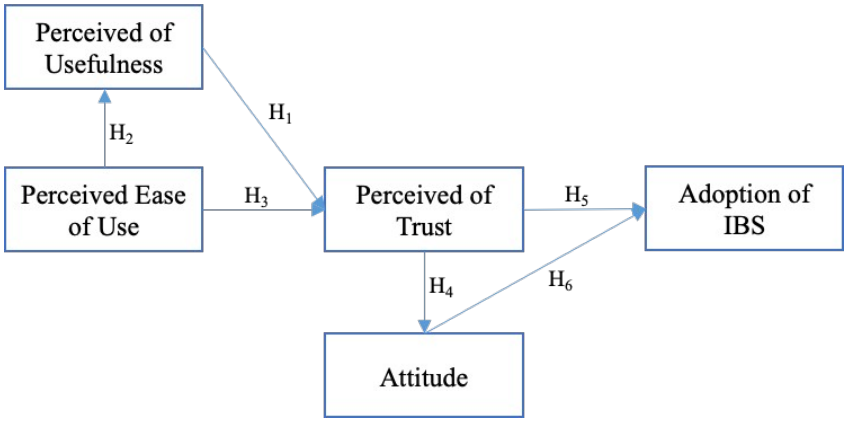

Figure 1. Conceptual framework

2.2. Adoption of IBS

Adoption can be defined as a mental process in which an individual decides to accept or reject a new idea, which involves further steps that strengthen the acceptance or rejection of the new idea. According to Hasan et al. (2014), adoption is a process that starts from someone's first idea, then the idea is communicated to other parties, and in the end, the idea is adopted by

both parties.

The technology acceptance and usage model predominantly utilized by researchers revolves around behavioral intention and actual usage. Therefore, most recent research concentrates on examining behavioral intentions to forecast usage. The information technology viewpoint largely influences the primary studies on technology acceptance and utilization (Davis et al., 1989; Venkatesh et al., 2003). The principal aim of this study is to comprehend real usage within the context of MFI business effectiveness through the tangible application of IBS technology. This study defines actual usage as the frequency and estimation of the instances where IBS technology is employed within a specified timeframe.

2.3. Perceived of Usefulness (PoU)

Perceived Usefulness (PoU) signifies how individuals perceive they will gain advantages from utilizing technology, such as IBS technology for MFIs. Usability perception (PoU) pertains to the degree to which technology can enhance performance. PoU can also be interpreted as a subjective probability that the use of technology will increase the ability of its users to perform a given job task. Users will use technology if it has a benefit that they can feel. If a technology is believed to benefit its users, it will be used. Conversely, if a technology is believed to have no benefit for its users, it will not be used. A technology will also be used if it is known to have positive benefits. Thus, users expect the technology's presence to benefit them, and it can be used for various benefits.

This variable holds significance in shaping the sustainability of technology adoption. In this study, PU was first linked to user trust. Trust is a key factor in technology adoption (Nugraha, Setiawan, Nathan, &; Fekete-Farkas, 2022). This refers to the degree to which the user perceives that integrating the technology will fulfil their requirements, such as time efficiency and profitability. Previous studies have identified a positive association between PU and trust (Makmor et al., 2023; Usman et al., 2022; Hamzah et al., 2022). The hypotheses formulated based on prior research are outlined as follows:

Hypothesis 1 (H_1): Perceived usefulness (PoU) positively impacts Trust.

2.4. Perceived Ease of Use (PEU)

TAM and its different adaptations suggest that Perceived Ease of Use (PEU) and Perceived Usefulness (PoU) collaborate in influencing technology adoption. Davis (1985) defines PEU as the degree to which an individual

perceives that utilizing a system will be effortless. PEU allows users to adopt its technology and services without hassle. The ease of use pertains to user comfort with a specific technology, indicating that the technology is user-friendly and does not demand excessive resources. The perception that a person has about the ease of using a system is the level of confidence in being free from mistakes and an effort. A person's performance will increase when technology minimises user effort. Venkatesh & Davis (2000) propose that Perceived Usefulness (PoU) exerts a more substantial influence on user acceptance compared to Perceived Ease of Use (PEU), and they also suggest that PEU should precede PoU (Natasia, et al., 2021; Nguyen et al., 2023; Alshurafat et al., 2021; Paganin et al., 2023; Tao et al., 2022; Huang, 2021). In a technology-driven business environment, the user-friendly nature of ease of use simplifies tasks.

The TAM theory is regarded as a distinctive framework comprising two central tenets, where enhanced user responses to perceived ease and usability contribute to a higher level of confidence in technology use (Makmor et al., 2023). Usman et al. (2022) have integrated Trust into TAM by incorporating constructs such as perceived ease of use and usability. Moreover, prior studies have identified a positive relationship between PEU and Trust (Huang, 2021; Maharjan et al., 2022). Hamzah et al. (2022) corroborate these findings, demonstrating that Trust significantly impacts ease of use and usability perceptions. Thus, the study presents the following hypotheses:

Hypothesis 2 (H_2) : Perceived Ease of Use (PEU) has a positive impact on Perceived of Usefulness (PoU).
Hypothesis 3 (H_3) : Perceived Ease of Use (PEU) positively impacts Trust.

2.5. Perceived of Trust (PoT)

Trust is a cognitive condition that holds significance in connecting two entities, encompassing individuals, organizations, objects, and other entities (Hassan et al., 2022). Trust can be interpreted in various dimensions and ways (Oktavendi & Mu'ammal, 2022). Trust is a cognitive component of psychological factors related to an individual's Attitude towards a particular statement or concept based on his beliefs, experience, and abilities. Trust is a factor in helping a person admit that something is true or only part of his delusion. Building trust with others takes a gradual process that takes time to develop mutual understanding. In this research, Trust is characterized as an individual's inclination to place faith in the actions or statements of a service provider. Nathan et al. (2022) highlight that aside from factors such as knowledge, behavior, and financial literacy, trust elements are also

associated with adopting fintech services. Thus, Trust in this study is delineated as the degree to which users rely on reputation, system security, and website quality concerning their adoption behavior of IBS technology services. In other words, the perception of Trust can be viewed as a pivotal determinant that motivates users to engage with technology (Huang, 2021; Assaker, 2020; Kamal et al., 2020). Trust also positively affects the Attitude of technology users (Bothma & Mostert, 2023; Maharjan et al., 2022). These arguments lead to the following hypotheses:

Hypothesis 4 (H_4) : Perception of Trust has a positive impact on Attitude.

Hypothesis 5 (H_5) : Perceived Trust positively impacts IBS Technology Adoption.

2.6. Attitude (At)

Attitude, a crucial psychological construct, has been extensively employed by numerous authors (Irimia-Diéguez et al., 2023; Nathan et al., 2022). Initially introduced by Ajzen (1991), Attitude is defined as an individual's favourable or unfavourable evaluation or assessment of a particular behavior (Hassan et al., 2022). Attitude manifests real feelings in a person's life, indicating whether a person feels happy or unhappy, satisfied or dissatisfied with a certain object or thing. The attitude structure consists of three interrelated components: cognitive, affective, and conative. Both SDGs and TAMs identify attitudes as important predictors of behavioural intentions (Singh et al., 2020). The process of using technology begins with the formation of attitudes/perceptions towards the technology, which are influenced by perceptions of value, ease of use, and usability.

Attitude refers to the response elicited when an individual expresses sentiments toward an object, activity, event, or another person (Shahzad et al., 2022). It serves as an abstract concept for comprehending human behavior. Understanding the genesis or formation of an individual's Attitude facilitates comprehension of their behavior. The continuous evolution of Attitude entails a shift in the evaluation system from positive to negative or vice versa, alongside sentiments and expressions of agreement or disagreement with a given entity. On an individual level, Attitude reflects one's internal state, prompting action or engagement in various activities with diverse sentiments as a response to surrounding objects, circumstances, or conditions. Several studies on technology use behavior, identifying attitudes, and other factors have significantly influenced technology adoption (Zheng, 2020; Natasia et al., 2021; Alshurafat et al., 2021; Fussell & Truong, 2022). Jang et al. (2021) found that attitudes can encourage

technology use.
These assertions culminate in the following hypotheses:

Hypothesis 6 (H_6): Attitude positively impacts IBS Technology Adoption.

3. Research Method

3.1. Population and Sampling

The study used surveys to analyze hypothesized relationships. The respondents of this study were managers and staff employees using an integrated microbanking system (IBS) at PT Lembaga Keuangan Mikro (MFI) Garut Regency. PT LKM is a microfinance institution that is one of the Regional Owned Enterprises of Garut Regency where the company was formed as a continuation of the District Precredit Regional Company (PDPK). PT MFI's shareholding structure involves the West Java Provincial Government with 9% shares and the Garut Regency Regional Government with 91% shares.

The number of managers and staff at PT LKM is 83 people; thus, the sampling technique used is census sampling. Structured questionnaires are used as data collection instruments. The questionnaire was distributed to all PT LKM Garut Regency managers and staff. By sampling the census, the response rate in filling out the questionnaire reached 100 per cent.

3.2. Measures

The questionnaire consists of two segments: Section A collects demographic data from respondents, including gender, level of education, and occupational position. Section B encompasses questions related to different factors delineated in the research model (Figure 1). Participant responses were evaluated using a Likert scale ranging from strongly disagree (1) to strongly agree (5). Dimensions assessed under Perceived Usefulness (PoU) encompass Response Time, Utilization, Availability, and Reliability. The dimensions PEU variables measure are Interface Design, language, User Error, Cognitive Load, and Language. The dimensions measured from PoT variables are Fault Tolerance, Security, and Transparency. The dimensions measured from the Att variable are Emotional Reaction, Feeling of person, Thought, and Behavior Reaction. The dimensions measured from variables are increased productivity, Cost Reduction, Hardware Accessibility, and Technical Support.

3.3. Data Analysis

Data collected from participants was analyzed utilizing Partial Least Squares (PLS), a statistical technique integrated into structural equation modeling (SEM) (Joseph F. Hair, Risher, Sarstedt, & Ringle, 2019). PLS is applied to empirically examine proposed models and validate hypothesized relationships between determinants (J. F. Hair, Hult, Ringle, & Sarstedt, 2017). It is commonly utilized across a broad spectrum of fields including accounting, marketing, sociology, business, and informatics. PLS models generally consist of both structural and measurement aspects. Evaluation of structural models entails examining reliability and internal validity indicators (Sarstedt, Hair, Cheah, Becker, & Ringle, 2019). Following this, the PLS algorithm employs t-tests and path coefficients to test hypotheses. Consistent with the proposed research framework, this study employed the PLS method to explore the factors affecting the adoption of IBS services and technologies.

4. Result and Discussion

4.1. Sample description

The respondents used in this study consisted of all managers and staff from each division, including branch leaders, section heads, and staff of each division, with the number of respondents used as a research sample of 83 respondents. Table 1. describes the characteristics of research respondents based on questionnaire data received and processed.

Table 1. Respondent Criteria

Criterion	Sub Criteria	Percentage
Gender	Man	28%
	Woman	72%
Education	High school	58%
	Diploma	2%
	Bachelor	39%
	Master	1%
Position	Head of Section	19%
	Branch Head	10%
	Division Head	5%
	Staff	66%

In the gender category, most positions are occupied by men. This shows that the respondents who work at PT MFI Garut Regency are mostly men

because the most important job status is in the billing department, where the work process is carried out in the field. In the education level category, most respondents have completed upper secondary education. This indicates that respondents are workers with skills and expertise or at least understand their roles and duties. While in the position category, most respondents are staff employees. This reflects career advancement, where the higher the position, the fewer the number of personnel occupying it. From the overall criteria of respondents, it can be concluded that respondents are considered capable and understand the questions listed in the questionnaire, which reflects their ability to do their work at PT MFI.

4.2. PLS-SEM analysis

The model measurement in this study underwent validity and reliability assessments. Validity testing encompassed evaluations of convergent and discriminant validity. Reliability testing involves the calculation of composite reliability. Convergent validity can be assessed through loading factors, while discriminant validity can be assessed through Fornell-Lacker Criterion and Heterotrait-Monotrait Ratio (HTMT). The values of Loading Factor (LF), Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE) are illustrated in Table 2.

Table 2. Outer Loading, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted

Variables	Indicators	Loading	CA	CR	AVE
PU	PoU2	0.709	0.843	0.889	0.618
	PoU5	0.844			
	PoU6	0.862			
	PoU7	0.776			
	PoU8	0.727			
PEOU	PEU1	0.722	0.874	0.900	0.530
	PEU2	0.739			
	PEU3	0.747			
	PEU4	0.683			
	PEU7	0.717			
	PEU8	0.777			
	PEU9	0.721			
	PEU10	0.715			
Perceived of Trust	PoT1	0.663	0.799	0.862	0.555
	PoT3	0.765			
	PoT5	0.785			

Variables	Indicators	Loading	CA	CR	AVE
	PoT6	0.770			
	PoT8	0.737			
Attitude	At1	0.744	0.827	0.874	0.538
	At3	0.814			
	At4	0.716			
	At5	0.704			
	At6	0.757			
	At9	0.657			
Adoption of IBS	AD2	0.609	0.843	0.881	0.516
	AD3	0.691			
	AD4	0.685			
	AD5	0.750			
	AD6	0.792			
	AD7	0.737			
	AD8	0.752			

The first data processing stage results show that there is still a loading factor value that does not meet the significance requirement of > 0.5, so the indicator data is eliminated. Subsequent tests performed the same data analysis, excluding indicators that had been eliminated. This activity is carried out several times until all indicators meet the minimum requirements of convergent validity. After several iterations of the data, there are several invalid indicators: PoU1, PoU3, PoU4, PoU9, PEU5, PEU6, AT2, AT8, AT10, AT11, AT12, PoT2, PoT4, PoT7, AD1, and AD9.

After ensuring that the loading factor values meet the criteria for convergent validity, the next step involves assessing Cronbach's alpha (CA) and Composite Reliability (CR). These values must meet specific thresholds: CA should be greater than 0.6, CR should be greater than 0.7, and the Average Variance Extracted (AVE) should exceed 0.5 (Sarstedt et al., 2019; Joseph F. Hair, Black, Babin, & Anderson, 2019; Joseph F Hair et al., 2019). As illustrated in Table 2, the test outcomes reveal that each CA value for the constructs surpasses 0.6, while CR exceeds 0.7, and the AVE value already exceeds 0.5. These findings indicate that all latent variables demonstrate strong consistency.

Table 3. Discriminant Validity Test Results

	AD	At	PEU	Pot	PoU
AD	0.719				

	AD	At	PEU	Pot	PoU
At	0.647	0.734			
PEU	0.542	0.535	0.728		
Pot	0.691	0.596	0.704	0.745	
PoU	0.447	0.400	0.697	0.655	0.786

Discriminant validity compares the AVE root and all latent correlation values with other latent. The discriminant validity is declared feasible if the AVE root value exceeds the value below it. Table 3. indicates that the entire root value of AVE is greater than its correlation value.

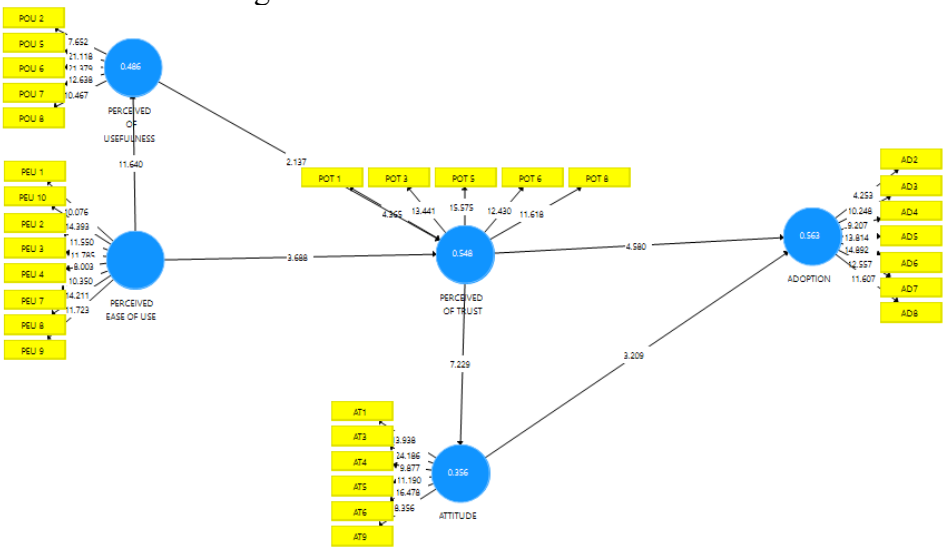

Figure 2. Path analysis

Assessment of the inner model (structural model) entails examining the measurement index, specifically the Adjusted R2. As per Table 4, the R Square value for the Adoption variable is 0.563, indicating that 56.3% of the variance is attributed to the Attitude and Perceived Trust variables, while other factors influence the remaining portion. The Attitude variable is 0.356, which means the Perceived Trust variable and the rest by other causes influence 35.6%. The Perceived Trust variable has a coefficient of determination (R Square) of 0.548, indicating that 54.8% of its variance is explained by the Perceived Usefulness and Perceived Ease of Use variables, with the remaining portion influenced by other factors. Similarly, the Perceived Usefulness variable has an R Square value of 0.486, signifying that Perceived Ease of Use is accounted for 48.6% of its variance, while

other factors influence the remainder.

Table 4. R-Square value

Variable	*R Square*	Criterion
Adoption	0.563	Moderate
Attitude	0.356	Moderate
Perceived Of Trust	0.548	Moderate
Perceived Of Usefulness	0.486	Moderate

Path coefficients in this study were obtained from the results of the Bootstraping process with the choice of test type one tiled because the hypothesis in this study aims to test the positive influence between exogenous and endogenous variables. Below are the path coefficient values generated in this study.

Table 5. 16 Result of Path Coefficients

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P-Values	Decision
PoU → PoT	0,319	0,321	0,150	2,127	0,017	Supported
PEU → PoU	0,697	0,706	0,060	11,590	0,000	Supported
PEU → PoT	0,482	0,483	0,131	3,693	0,000	Supported
PoT → At	0,596	0,612	0,085	7,013	0,000	Supported
PoT → AD	0,473	0,478	0,105	4,516	0,000	Supported
At → AD	0,365	0,366	0,112	3,270	0,001	Supported

The first hypothesis examines whether Perceived Usefulness (PoU) influences Perceived Trust (PoT). The results reveal that the beta coefficient of PoU on PoT is 0.319, with a t-statistics value of 2.127 and a P-value of 0.017. These findings indicate that the first hypothesis is statistically significant, as it surpasses the threshold value of 1.64 and exhibits a P-value below 0.05, thereby supporting the notion that PoU affects PoT. Similarly, the second hypothesis investigates whether Perceived Ease of Use (PEU)

affects PoU. The analysis shows that the beta coefficient of PEU on PoU is 0.697, with a t-statistics value of 11.590 and a P-value of 0.000. Consequently, the second hypothesis is deemed significant, as it exceeds the critical value of 1.64 and possesses a P-value below 0.05, indicating that PEU positively affects PoU. Lastly, the third hypothesis explores whether PEU influences PoT. The findings demonstrate that the beta coefficient of PEU on PoT is 0.482, with a t-statistics value of 3.693 and a P-value of 0.000. Thus, the third hypothesis is considered significant, surpassing the threshold value of 1.64 and exhibiting a P-value below 0.05, indicating that PEU positively impacts PoT.

The fourth hypothesis examines whether Perceived Trust (PoT) influences Attitude (Att). The analysis reveals that the beta coefficient of PoT on Attitude is 0.596, with a t-statistics value of 7.013 and a P-value of 0.000. Consequently, the fourth hypothesis is deemed significant as it exceeds the threshold value of 1.64 and possesses a P-value below 0.05, indicating that PoT impacts Attitude. Similarly, the fifth hypothesis assesses whether PoT affects the Actual Decision to Adopt (ADD). The findings indicate that the beta coefficient of PoT on ADD is 0.473, with a t-statistics value of 4.516 and a P-value of 0.000. Thus, the fifth hypothesis is considered significant, surpassing the critical value of 1.64 and exhibiting a P-value below 0.05, suggesting that PoT influences ADD. Lastly, the sixth hypothesis explores whether Attitude positively affects ADD. The results show that the beta coefficient of Attitude on ADD is 0.365, with a t-statistics value of 3.270 and a P-value of 0.001. Therefore, the sixth hypothesis is deemed significant as it exceeds the threshold value of 1.64 and possesses a P-value below 0.05, indicating that Attitude positively affects ADD.

5. Conclusion

This research is based on the expanded TAM theory by combining two main factors, namely Perceived Usefulness and Perceived Ease of Use, with other factors, namely Perceived Trust and Attitude, and analyzing and applying the model to the Integrated Micro Banking System technology as the Core Banking System that is widely applied in Indonesia. The results showed that all six hypotheses developed supported the researchers' initial guesses. Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Attitude can directly or indirectly explain and predict users' adoption of Integrated Micro Banking System technology. Therefore, the results of this study become an important guide for users, especially the management team of Microfinance Institutions, in adopting technology and formulating relevant policies.

Regarding the perceived usefulness factor, IBS supports users with the speed of response time, reliability, and accuracy of the system. In the Perceived Ease of Use factor, IBS is proven to support users through system display design indicators, system grammar that is easy to understand, system contextualization relevant to banking operations, minimal errors made by users due to system complexity, and minimal cognitive load arising from the system so that users can use it efficiently. Based on the Perceived of Trust factor, IBS supports user trust with indicators of system resilience that can ward off cyber-attacks and unauthorized access to user accounts, system security that protects transaction data inputted by users, system transparency on data use and companies make users feel confident that any party does not misuse user and company data. In other words, by adopting IBS, users believe that the functionality of that system can meet their needs. The Attitude factor can be explained by positive user perceptions about service quality and system management of data, reactions to user habits that make work more flexible, and improved user skills in using the system. Other indicators that can be seen are an increase in user productivity, cost savings, manpower and equipment, and reduced operational costs.

The study findings confirm the relationships outlined in the TAM framework, incorporating key factors such as Perceived Usefulness and Perceived Ease of Use, alongside Perceived Trust and Attitude, consistent with prior research. Regarding the association between Perceived Ease of Use and Perceived Usefulness, the results align with Hamzah et al. (2022), emphasizing the importance of these factors in Fintech adoption. Additionally, user trust in Fintech services significantly influences adoption attitudes, highlighting the need for providers to prioritize efficiency and cost-saving features. Similarly, the significant impact of Perceived Ease of Use on Perceived Usefulness echoes findings by Natasia et al. (2021), emphasizing the role of usability in enhancing perceived utility. However, contrary to Maharjan et al. (2022), this study demonstrates a significant relationship between Perceived Ease of Use and Perceived Trust, indicating its importance in fostering Trust. Moreover, the study underscores the significant influence of Perceived Trust on Attitude, consistent with Shahzad et al. (2022), emphasizing Trust, ease of use, and innovation in shaping adoption attitudes. The findings also highlight the significant impact of Perceived Trust on Adoption, aligning with Nugraha et al. (2022), underscoring the role of Trust alongside perceived benefits and ease of use. Lastly, the significant influence of Attitude on adoption underscores its importance in driving adoption intentions.

This study provides a substantial theoretical advancement in technology user acceptance research. Firstly, it enhances comprehension regarding the determinants affecting adopting IBS technology, building upon prior investigations. Currently, the primary emphasis in research revolves around TAM as a comprehensive framework for comprehending the acceptance and utilization of technology. However, the study found that user beliefs and attitudes contribute to technology adoption. The extent to which trust in the system allows users to work effectively and efficiently. In other words, the findings of this study not only contribute theoretically to TAM literature but have significant implications for microfinance institution practitioners. The study emphasizes the significant importance of trust in encouraging users to embrace IBS technology for their operational needs. Consequently, policymakers within Microfinance Institutions must focus on persuading managers and staff to enhance their Trust in IBS technology utilization.

The constraint of this study is attributed to the limited sample size. Specifically, the study only examined one MFI entity out of the 165 MFIs dispersed across Indonesia.Thus, further research is needed that uses a larger number of samples with a larger coverage area. In addition to the limited number of samples, this study limited the research variables on the expanded TAM with additional factors of Trust and user attitude.

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