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BAITUL MAAL WA TAMWIL DIGITALIZATION AND MILLENNIALS ACCEPTANCE IN INDONESIA

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ABSTRACT

Digitalization in microfinance institutions, including Sharia-compliant ones such as *Baitul Maal wa Tamwil* (BMT), is considered crucial for several reasons, including operational efficiency, increased financial inclusion, and rising demand in the evolving financial ecosystem. As a crucial tool for alleviating poverty and empowering marginalized communities, the integration of digital technology has become a necessity, not an option. This research examines the factors that influence millennials' use of digital financial technology developed by BMT**.** This study employed the Technology Acceptance Model (TAM) processed through Structural Equation Modeling (SEM) in SmartPLS with 108 respondents. The sample consisted of millennial- generation Islamic digital BMT users in Indonesia who have at least one experience using it. The sampling technique used was accidental sampling, and data collection was carried out for one month. The results indicated that all hypotheses were accepted. Ease of use significantly affected users' attitudes, as did the usefulness for behavior. This finding implies that if a digital BMT platform is easier to use, it will lead to more positive attitudes among its users. , the more useful a digital BMT platform is, the more positively its users will behave and the more likely they will be to use it in the future.

INTRODUCTION

Islamic microfinance institutions, such as *Baitul Maal wa Tamwil* (BMT), play an important role in microsociety(Yumna, 2019). BMT is considered capable of reducing poverty, improving the welfare of its members, and strengthening the national economy (Adnan & Ajija, 2015; Ajija et al., 2018; Husaeni, 2021; Wulandari, 2019). Their presence serves to free microsociety from the clutches of predatory lenders that are common in society. Through its dual function as charity and *tamwil* (financial service), BMT instills an ethos in its members to fulfill their religious obligations while pursuing economic goals (Ma et al., 2022).

The existence of BMT in Indonesia has been well received by the community, marked by rapid growth and development, and has received government support and a legal umbrella. In Indonesia, BMT Supervision is under the Ministry of Cooperatives and SMEs or the Financial Services Authority (OJK). Currently, in Indonesia, approximately 300 of the 4,500 cooperatives, both conventional and sharia (BMT), are developing financial technology or starting to digitize their finance to improve the performance of their institutions and members (KNEKS, 2023). The financial digitilization models used include financial reports and digital financial transactions (Sangwan et al., 2020). This evolution has led to the emergence of digital BMT, specifically designed to meet the needs of microfinance institutions by developing fintech.

Ascarya & Sakti (2022) coined the term “digital BMT” , while Haidar (2021) used “fintech-micro”, to refer to financial technology innovation developed by microfinance institutions. In this research, the term “digital BMT” will be used to avoid redundancy with the term “fintech”, which is currently developing in society. Digital BMT, although not as extensive as banking-based fintech, plays an important role in a more local scope, typically within the BMT coverage area, which includes districts, cities, provinces, and the nation (Visconti, 2020). Unlike banking based fintech, which has a broader reach, the digital BMT’s user-based has limitations in terms of geographical reach for operations. The main objective behind the creation of digital BMT is to achieve cost efficiency by eliminating ineffective processes and adapting to technological advances (Visconti, 2020). Digitalization aims to enhance the operational effectiveness of BMTs, enabling members to conduct financial transactions efficiently. Digital BMT plays a similar role to banking-based fintech, particularly targeting the tech-savvy millennial generation. Its use among the older generation is lower because they are less familiar with technology and prefer traditional methods.

Despite its potential, digital BMT still faces challenges. Several researchers have noted inadequate regulation and the need for strict Sharia compliance to manage the risks associated with fintech innovation (Hammadi et al., 2024; Muryanto, 2022). Furthermore,

the existence of systemic barriers, such as limited technological infrastructure and the public's perception of fintech, also reflects the growth and acceptance of customers (Boustani, 2020). Nevertheless, collaboration between BMT and fintech companies has resulted in positive results, enabling these entities to serve the community more effectively while still implementing sharia principles. Digital BMT targets its members who use smartphones, regardless of age. However, data shows that the majority of fintech users in Indonesia are millennials, accounting for around 70.8 percent (Databoks.Katadata, 2023). Given this demographic dominance, it is crucial to examine the factors influencing digital BMT adoption among millennial BMT members in Indonesia. This generation was selected as the focus of the study because they experienced significant technological advancements during their formative years, giving them relatively higher exposure to digital tools compared to earlier cohorts. Furthermore, they generally exhibit a greater degree of financial independence than the subsequent generation, making them a relevant group for analysis (Al Karim et al., 2023; Daqar et al., 2020; Endro et al., 2024; Hosen et al., 2023; Rahim et al., 2023; A. K. Singh & Sharma, 2023; Sunil & Kumar, 2025).

There is a lack of empirical studies analyzing what influences millennials to adopt digital BMT in Indonesia, while most of the previous studies focused on blockchain (Aysan & Syarif, 2025; Chong, 2021; Gonzalez, 2020; Rabbani et al., 2020; Supriadi et al., 2024), crowdfunding (Creta & Mazaj, 2021; Emanuel-Correia et al., 2022; Masrizal et al., 2022; Meng, 2021; Wahyudi et al., 2025), and peer-to-peer(Al-Hashfi & Zusryn, 2020). Research on digital BMT is still limited compared to banking-based fintech. Existing research focuses on the digital BMT business model and the benefits of its implementation in microfinance institutions (Visconti, 2020). The lack of research hinders the optimal development of BMT digitalization. Therefore, it is urgent to conduct research that explores the factors influencing the behavior of digital BMT users, especially among millennial BMT users.

The purpose of this study is to examine the factors that influence the use of digital BMT among millennial BMT members in Indonesia. There are several hypotheses used, including whether there is a significant influence of the perceived ease of use (PEU) variable on the perceived usefulness (PU) variable, whether there is a significant influence of the Perceived Ease of Use (PEU) variable on the attitude towards using (ATU) variable, and whether there is a significant influence of the behavioral intention to use (BIU) variable on the actual system use (ASU) variable. In the future, it is hoped that this analysis will provide valuable insights that contribute to the advancement of microtechnology in Indonesia and worldwide.

LITERATURE REVIEW

Theoretical background

This study begins with the Technology Acceptance Model (TAM) framework, which has been widely used to explain and predict user behavior in the adoption of information technology. TAM, first introduced by Davis (1989), significantly influences an individual's intention and actual behavior in using technology by its two primary constructs: the perceived usefulness and perceived ease of use. This model has been recognized as one of the most influential theories in the study of technology adoption due to its simplicity, flexibility, and empirical validity across various technological contexts, including the digital financial sector. Analysis of fintech usage factors can be analyzed through the TAM approach. Recent studies confirm the relevance of this model in explaining the dynamics of fintech adoption across various sectors, including the philanthropic and commercial financial sectors (both Islamic-based and conventional), particularly among the Muslim millennial generation and other user groups.

In the fintech ecosystem, trust occupies a strategic position in influencing user acceptance. (Balaskas et al., 2024) showed that trust, supported by government policy interventions, significantly influenced the adoption of fintech services in Greece. This finding highlights the importance of integrating core elements in TAM with external factors. Likewise, Alsmadi et al., (2024) emphasized that technology acceptance positively contributes to the intention to use sharia-based fintech, thus emphasizing the need for service providers to build user trust—especially among the Muslim segment—to ensure compliance with ethical values and Islamic principles. Furthermore, the Perceived Ease and Usefulness aspects, as fundamental components of TAM, have been examined in the context of fintech adoption by Micro, Small, and Medium Enterprises (MSMEs). (Perwitasari, 2022) found that perceptions of the benefits and simplicity of technology significantly influenced the behavioral intentions of MSME entrepreneurs in adopting fintech. Furthermore, it emphasized the importance of both factors in ensuring the successful implementation of this technology in this sector.

Empirical Evidence and Hypothesis Development

The development of financial technology (fintech) has triggered a significant transformation in the global financial sector, including in Islamic financial services. Numerous studies related to fintech (banking) have been conducted, such as on peer-to-peer lending (Klein et al., 2023; Putri et al., 2023; Yin et al., 2023), e wallet (Aji & Adawiyah, 2022; Al-Okaily, 2023; Shrestha et al., 2025; Zaidan et al., 2024), while those of non-banking based fintech included the use of fintech in philanthropic institutions (Ahmad & Yahaya, 2023; Amri et al., 2024; Robbana et al., 2024), and microfinance institutions or digital BMT (Ascarya & Sakti, 2022; Visconti, 2021). However, previous studies have

several limitations, particularly concerning digital BMT, as they focus mainly on digital BMT business models, product models, and fintech-driven microfinance development. Notably, there has been no analysis or research on the behavior of digital BMT users.

To understand technology adoption behavior, the Technology Acceptance Model (TAM) has been widely used. The two primary constructs in TAM—perceived usefulness and perceived ease of use—significantly influence an individual's intention to adopt a technology (Davis & Granić, 2024a). Several research related to the use of TAM and fintech has also been conducted by a number of studies, such as on the impact of fintech on wholesale purchases (Rana et al., 2025), the impact of service quality in fintech payment services (Sharma et al., 2024), and fintech in social welfare schemes during the covid period (J. Singh & Singh, 2023). Meanwhile, TAM research in Islamic fintech has also been applied to studies on the use of fintech in investment and social funds (Amri et al., 2024) and the use of mobile banking in Islamic banks (Legass & Durmuş, 2024).

The emergence of fintech can be a new source of transformative power, significantly contributing to financial inclusiveness and sustainable economic development. The use of technology increasingly facilitates financial access by optimizing digital platforms and making financial services more accessible and more efficient, especially in areas where financial access is quite difficult, such as in rural areas (Demir et al., 2022; Khan & Alhadi, 2022; Miah, 2023). In several countries, such as India and China, fintech has successfully increased financial inclusion, with Digital Financial Service (DFS) becoming an important part of reaching people who previously did not have access to finance in the traditional banking system. According to Asif et al. fintech in Indonesia has succeeded in making a significant contribution to increasing savings and profitability among rural residents (Asif et al., 2023). Likewise, the results of research from Hasan et al. indicated that DFS in China succeeded in developing inclusive finance by reducing costs and increasing access for remote communities. This finding proves that fintech is able to reduce the gap in financial inclusion in society (Hasan et al., 2022).

Nevertheless, numerous studies have shown that fintech not only provides economic benefits but also benefits other principles of sustainable development; yet some others have shown that fintech does not always have a positive impact on financial inclusion. This negative impact is due to a number of challenges, such as regulations in the country, lack of digital literacy, and risks (Amnas et al., 2024; Ozili & Mhlanga, 2024). Increasing digital financial literacy is an important factors in maximizing the potential benefits of fintech.

In several Muslim-majority countries, including Indonesia and Turkey, fintech has also been successfully integrated with Islamic finance, resulting in a microfinance model adapted to local culture and ethics in accordance with sharia (Bayram et al., 2022). These innovations not only promote the sustainability and continuity of the economy of

microfinance institutions amid competitive market conditions but also align financial services with Islamic ethical standards (Mardjono & Setyawan, 2025; Najaf et al., 2022).

Digital BMT is expected to emphasize financial inclusion by empowering individuals and micro-enterprises particularly in overcoming bureaucratic and infrastructure barriers. However, digital BMT faces a number of challenges, most likely similar to those in fintech in general, such as issues related to data security, regulatory compliance, and gaps in technology access. Therefore, there needs to be a theoretical study of Micro-Fintech that includes economic, technical and socio-technical dimensions (Ascarya & Sakti, 2022; Visconti, 2021).

The Muslim millennial generation and fintech are topics that often appear in several studies, such as millennial literacy in the use of fintech (Sukarno et al., 2024; Sunil & Kumar, 2025), and the intention to use and invest in fintech (Al Karim et al., 2023; Indarningsih et al., 2023). The millennial generation actively uses technology for everyday needs, including financial services. The adoption of fintech in the Islamic financial sector is driven by the needs and preferences of the Muslim community, who require efficiency, transparency, and ease of use (Ajija & Salama, 2024).

In Indonesia, the large Muslim population of the millennial generation has become a catalyst for the growth of the Islamic fintech ecosystem (Kholidah et al., 2024). This innovation allows micro-enterprises and investors to access new funding opportunities that will drive economic growth and financial inclusion in Muslim society (Ibrahim et al., 2024). Despite its potential, there are challenges in the adoption of fintech among millennial Muslims. Current research indicates that fintech awareness is on zakat and peer-to-peer lending platforms; however, its actual use remains suboptimal. Factors that influence this include ease of use, trust in the fintech system, and alignment with Islamic values.

Hypothesis development

The Perceived Ease of Use (PEU) and perceived usefulness (PU) variables are two important variables in TAM. Both variables function to understand how users accept the technology used. These two variables are correlated, influencing each other (Davis & Granić, 2024b). When technology users find that a system is easy to use, free of confusion or other concerns, they consider it useful. This consideration is due to several reasons, such as increased comfort of use, reduced barriers to using technology, reduced uncertainty in using new technology, and a more positive experience for users (Alagu et al., 2012; Alshammari & Rosli, 2020).

In the Muslim millennial generation, who tend to be more familiar with the use of mobile and digital applications (Ferris, 2009), PEU plays an important role in shaping

perceptions about the benefits of digital BMT applications. For example, if the application is easy to use for financial monitoring, receiving payments, or even paying zakat, they will consider the application very useful (high PU). The significant influence between PEU and PU indicates that developers of Islamic digital BMT applications must focus on enhancing ease of use, particularly for Muslim millennial users, to help them easily understand the benefits offered by the technology. Intuitive application design, user-friendly interface, and features that suit user needs will increase the perceived usefulness of sharia digital BMT applications.

H1: There is a significant influence of the perceived ease of use (PEU) variable on the perceived usefulness (PU) variable.

PEU Refers to the user's perception of the technology, the digital BMT, isas easy to use, uncomplicated, and requiring little effort in operation (Ajzen, 2020; Conner, 2020). Meanwhile, ATU refers to the user's positive or negative attitude or feelings towards the use of technology. Their experience with technology influences their attitude toward it and belief in its value or enjoyment (Alshammari & Rosli, 2020). The millennial generation, known for its high appreciation of technology, will also engage in similar activities. When an application or financial technology offers a simple interface and a straightforward transaction process, this generation will have a positive attitude towards the technology, and vice versa.

H2: There is a significant influence of the Perceived Ease of Use (PEU) variable on the attitude toward using (ATU) variable.

Perceived Usefulness (PU) is the user's perception of the extent to which the technology helps achieve specific goals, while Attitude Toward Using (ATU) refers to the user's positive or negative attitude towards technology usage (Ajzen, 2020; Conner, 2020). PU will have a significant influence on ATU because technology users, particularly the millennial generation, tend to use technology if it provides relevant benefits and aligns with their desires. In addition, when users feel that financial technology can help meet financial needs, such as easy access to financing, then users will also have a positive attitude towards the technology. A positive attitude in this case can manifest confidence in using it, feeling that their actions are a wise decision (Bosnjak et al., 2020).

H3: There is a significant influence of the perceived usefulness (PU) variable on the attitude toward using (ATU) variable.

The relationship between these two variables is significant in understanding user behavior in adopting Islamic microfinance technology (digital BMT). PU is used to analyze user perceptions in terms of how far technology can help in achieving goals, while BIU is used to analyze the intention or desire of users to use the technology in the future(Chuttur, 2009; Davis & Granić, 2024b). The willingness to continue using technology will depend greatly on its perceived usefulness. For example, when the digital

BMT application makes it easier for users to manage finances, such as accessing financing and saving transaction time, users will tend to continue using it, and vice versa.

H4: There is a significant influence of the perceived usefulness (PU) variable on behavioral intention to use (BIU)

The ATU variable refers to an individual's perception or attitude towards the use of technology, or something related to it (Chuttur, 2009; Davis & Granić, 2024b), in this case digital BMT. The attitude in question refers to positive or negative feelings experienced by users in using digital BMT. Meanwhile, the BIU variable measures the intention one has while using digital BMT services in the future. This research focuses on millennial Muslims who are members of BMTs. These respondents have experience using digital BMT during their time as BMT members.

H5: There is a significant influence of the attitude toward using (ATU) variable on the behavioral intention to use (BIU) variable.

This study stands on TAM and TPBhypotheses, each of which contains intention variables (in TPB) and actual usage (in TAM). Based on these two theories, a person's intention (BIU) can act as the main predictor of their actual actions or behavior (ASU) (Ajzen, 2020; Chuttur, 2009; Davis & Granić, 2024b). This finding shows that a firm intention affects the likelihood of using technology. Additionally, the firm intention of millennial Muslims to use digital BMT will lead to more active daily usage.

H6: There is a significant influence of the behavioral intention to use (BIU) variable on the actual system use (ASU) variable.

RESEARCH METHODS

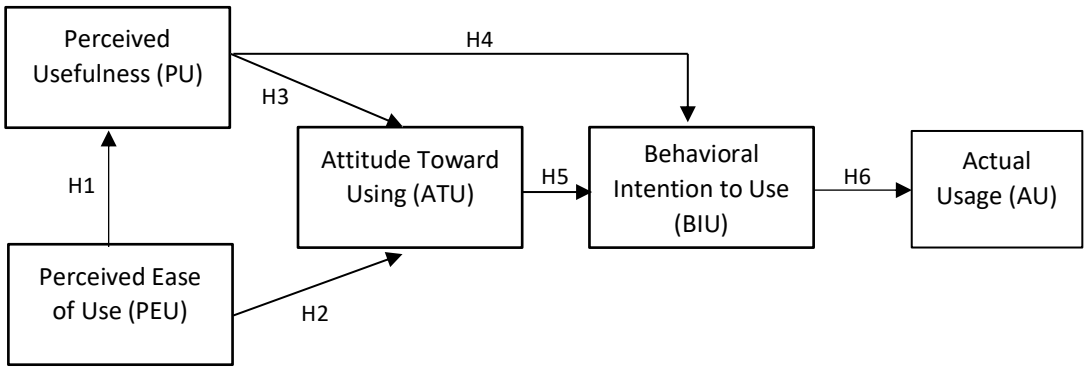
The research adopts an associative quantitative approach to explore the factors influencing the utilization of digital BMT among BMT members in Indonesia. It employs the Technology Acceptance Model (TAM), a well-established framework often utilized in studies focusing on technology adoption, which stems from the Theory of Planned Behavior (TPB) (Davis, 1989). TAM consists of five interconnected variables: Perceived Usefulness, Perceived Ease of Use, Attitude Toward Using, Behavioral Internation to Use, and Actual System Use.The following Table 1 describes the indicator of each variable.

Table 1. Indicators of Research Variables

Variable	Indicator	Sources
Perceived Usefulness (PU)	PU.01: Face difficulties due to the absence of micro-fintech PU.02: digital BMT can control my activities requiring its usage PU.03: It can enhance the performance of my payment transactions at IMFI PU.04: Thorough usage of digital BMT is more beneficial in activities.	(King & He, 2006; Pikkarainen et al., 2004; Shaikh et al., 2020)
Perceived Ease of Use (PEU)	PEU.01: The application/website is free of confusion PEU.02: Rarely or almost never frustrated when using digital BMT PEU.03: The digital BMT has an easy-to-understand interface. PEU.04: The user can quickly find the features or information PEU.05: Overall, the user can use micro fintech more easily	(Balakrishnan & Shuib, 2021; Ichwan & Kasri, 2019; Lew et al., 2020; Shaikh et al., 2020)
Attitude Toward Using (ATU)	ATU.01: Using digital BMT is a good idea ATU.02: Using digital BMT is enjoyable ATU.03: Enjoy the idea of using digital BMT ATU.04: Using digital BMT improves the performance ATU.05: Using digital BMT is positive	(Effendi et al., 2020; Niswah et al., 2019; Shih, 2004)
Behavioral Intention to Use (BIU)	BIU.01: Using digital BMT is a wise idea and rather positive BIU.02: Intend to use continuously in the future. BIU.03: Willing to recommend to others.	(Davis & Granić, 2024b; Effendi et al., 2020; Perwitasari, 2022; Shih, 2004)
Actual Usage (AU)	AU.01: Frequency of use (e.g. daily, weekly, monthly) AU.02: Duration of use (more extended usage session or the amount of time spent using digital BMT per session) AU.03: Feature usage rate (the proportion of users actively using features on digital BMT) AU.04: Regularity of use AU.05: Number of transactions	(Davis & Granić, 2024b; Munikrishnan et al., 2022; Ong & Chong, 2023)

TAM has variables that are considered influencing the use of technology: perceived usefulness (PU), perceived ease of use (PEU), actual system use (AU), behavioral intention to use (BIU), and actual towards use (ATU). These variables form a questionnaire that is processed using the Structural Equation Method - Partial Least Squares (SEM-PLS), which is a type of variance-based structural equation model assisted by SmartPLS. The PLS method was chosen because it is considered capable of measuring effectively with small samples and considering constructs comprehensively. The TAM SEM-PLS model is

presented in Figure 1 below.



Source: (Davis, 1989)
Figure 1. Technology Acceptance Model

Data quality assurance requires carrying out questionnaire validity and reliability testing. The latter evaluates the consistency of measurement instruments and ensures their accuracy by calculating the Cronbach's alpha value of the questionnaire. On the other hand, validity uses Average Validity Extracted (AVE) to ensure its data quality . Construct is considered reliable for its alpha value > 0.6 and is valid if the AVE > 0.5 (Thakkar, 2020). Loading factor is also applied if its value is greater than 0.7, with a tolerance; this means that if AVE and reliability meet the standard values, 0.6 is still acceptable(Becker et al., 2023). This study conducted hypothesis testing by examining the p value. If the p-value is less than 0.05, the hypothesis is considered to have a significant effect. However, if the p-value is above 0.05 (5%) there is no significant effect on the hypothesis. Thus, this test provides a strong basis for determining the validity of the hypothesis in data analysis.

This study uses accidental sampling techniques due to low adoption rates of digital BMT. This sampling method is particularly beneficial for studying populations that are difficult to reach due to socio-economic barriers or a lack of available sampling frames (Etikan, 2016). This study targeted BMT members who were millennials and Muslims throughout Indonesia who had used digital BMT services at least once. Data collection lasted for one month in December 2024 and resulted in a sample of 108 respondents. This result considerably meets the 10x rule sampling requirements used to adequately determine the minimum sample size for running the PLS-SEM analysis. The maximum number of indicators in the model is 5, which sums up to 50 when multiplied by 10 (Hair et al., 2022). Therefore, the conclusion is clear that 108 respondents are significantly sufficient. In addition, the questionnaire was online and used a g-form of a 1-5 Likert scale,

a common tool in social science research to understand attitudes, perceptions, and behaviors among respondents. This scale uses the "strongly agree" to "strongly disagree" response range, which allows researchers to collect diverse responses.

RESULT

The study involved 108 respondents over a four-week (one-month) data collection taken in December 2024. The data provided outlines the characteristics of the 108 respondents who underwent analysis. In terms of gender distribution, there was a relatively even split, with 46% of respondents being male and the remaining 54% being female. Notably, most respondents (62%) were entrepreneurs, indicating significant interest and engagement in the business sector among the individuals sampled. In addition, the remaining minor number of respondents comprised civil servants (16% of the sample) and educators (lecturers/teachers), who together made up 11% of the sample. Regarding income variability, Respondents show various levels of income. Thirty-six per cent of respondents stated that their income exceeds 5,000,000, while 19% earn between 3,000,001 - 4,000,000. However, a small number of respondents earn below 1,000,000, which represents 4% of the sample. This variety shows socio-economic diversity among the respondents included in this study. Furthermore, regarding geographical distribution, most respondents (67%) come from Java Island, likely reflecting the region's population dominance in this study, while the rest come from outside Java. Overall, the data above provides a clear picture of the respondents' profile in the study. This analysis offers valuable insights into the characteristics of individuals who are the subjects of the research by considering the following aspects: most respondents are entrepreneurs, the gender-based balance of participation, and variations in income and geographic distribution.

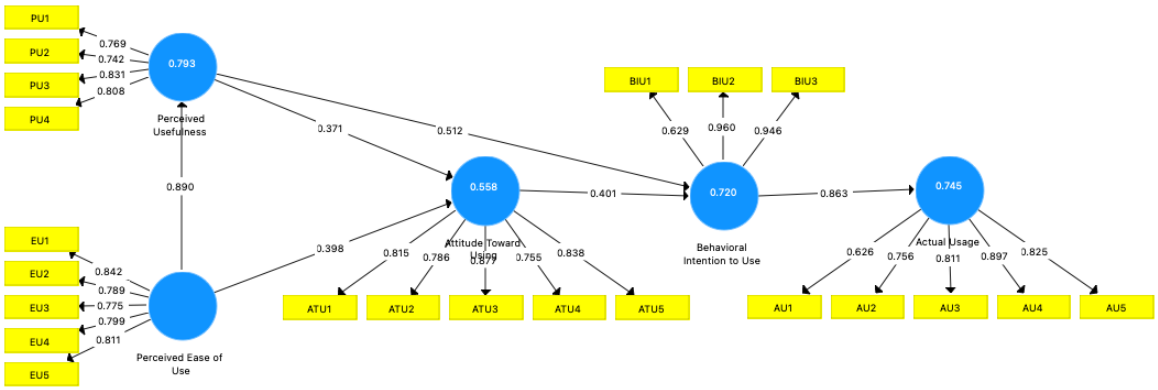
Table 2. Demographics Of Research Respondents

Characteristic N=108		
Variable	**Freqency**	**Percentage**
Gender		
Male	50	46%
Female	58	54%
Occupation		
Civil Servant	17	16%
Lecture/teacher	12	11%
Entrepreneur	67	62%
Housewife	4	4%
Student	4	4%
Other	4	4%
Income		
<1.000.000	4	4%

1.000.001 - 2.000.000	6	6%
2.000.001 - 3.000.000	19	18%
3.000.001 - 4.000.000	20	19%
4.000.001 - 5.000.000	20	19%
>5.000.000	39	36%
Region		
Java	72	67%
Outside Java	36	33%
Age		
30 – 35	56	52%
36 – 40	25	23%
40 – 45	27	25%
Duration on using Digital BMT		
< 6 months	10	9%
6 months – < 1 year	10	9%
1 – < 2 years	68	63%
> 2 years	20	19%

Source: author

Structural Equation Modeling (SEM) using Partial Least Squares (PLS) includes two important models-: the inner model and the outer model. The former model, known as the path model, determines the relationship between latent variables and is tested using R-squared. The latter model, the outer one, focuses on the correlation between the latent variables (constructs) and the observed variables (indicators). In addition, the outer model framework applies modeling to test the significance and factor loadings of the relationships between latent variables and their indicators. This process helps in measure the strength of the latent variables influences on their indicators and determines the statistical significance of these relationships. The results (Figure 2) obtained from this phase offer better insight into the quality of construct measurement in the SEM model.



Source: author
Figure 2. Outer Model

By incorporating outer models, researchers can examine the validity and reliability of the measurements, thereby ensuring that the observed variables adequately represent the tested construct. This test entails several stages, including evaluating the construct validity and the indicator reliability. Construct validity indicates the extent to which indicators accurately reflect the measured construct, while reliability ensures the measurement consistency. A construct is considered to have passed the validity and reliability test if its value is> 0.70 in its outer model. However, the constructs with values below 0.70 but above 0.6 are tolerable, if their Cronbach's alpha and Average Variance Extracted (AVE) meet the required threshold. The results of the validity test show that each variable has an Average Variance Extracted (AVE) value of more than 0.5, indicating success for each variable. Meanwhile, the reliability test result from the Cronbach's Alpha value is greater than 0.6, thus meeting the criteria for validity and reliability testing. Table 3 presents the results of data validity and reliability used in this study

Table 3. Validity and Reliability Result

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Actual Usage	0,846	0,892	0,890	0,621
Attitude Toward Using	0,876	0,899	0,908	0,665
Behavioral Intention to Use	0,808	0,875	0,891	0,738
Perceived Ease of Use	0,862	0,863	0,901	0,645
Perceived Usefulness	0,796	0,797	0,868	0,622

Source: author

R-squared is used to evaluate the robustness of the research model. This model has three categories of interpretation: weak, moderate, and strong. Values below 0.5 indicate a weak interpretation, while values between 0.5 and 0.75 indicate a moderate interpretation, and values above 0.75 indicate a strong interpretation. Referring to the R-

squared in Table 4, in the ATU model, the R-squared value indicates a moderate interpretation in the Actual Usage, Attitude toward Using, and Behavioral Intention to Use with R-squares between 0.5 and 0.75. Lastly, the Perceived Usefulness model is considerably strong because the R-squared is above 0.75.

Table 4. R Square Result

	R Square	R Square Adjusted
Actual Usage	0,745	0,743
Attitude Toward Using	0,558	0,550
Behavioral Intention to Use	0,720	0,715
Perceived Usefulness	0,793	0,791

Source: author

Table 5 presents several values to analyze the data results in the study. Based on the P value, if it p< 0.05, it means that the hypothesis is accepted. There is an influence of the independent variable on the dependent variable. The six hypotheses are accepted because the p-value is below 0.05. Each hypothesis has a positive relationship based on the original sample value ort-statistic.

Table 5. Result of Testing Hypothesized Relationship Paths

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P-Values
PEU -> PU	0,890	0,893	0,026	34,573	0,000
PEU -> ATU	0,398	0,398	0,163	2,437	0,015
PU -> ATU	0,371	0,375	0,168	2,205	0,028
PU -> BIU	0,512	0,515	0,073	6,982	0,000
ATU -> BIU	0,401	0,397	0,083	4,820	0,000
BIU -> AU	0,863	0,867	0,027	32,550	0,000

Source: author

DISCUSSION

Perceived Ease of Use (PEU) significantly influences Perceived Usefulness (PU) in Islamic digital BMT. This finding aligns with the TAM theory used in this study (Davis & Granić, 2024b). Several previous studies support this correlation; illustrating how ease of Use influences the perception and adoption of financial technology that aligns with Islamic principles. Empirical evidence shows that when millennials perceive a fintech application, including Islamic digital BMT, as easy to navigate, they are more likely to recognize its usefulness (Alagu et al., 2012; Alshammari & Rosli, 2020).PU and PEU generate positive user attitudes, particularly to encourage acceptance among millennials. Furthermore, user

satisfaction emerges as an important mediator influenced by PEU. This dynamic is relevant for millennial users who prefer intuitive and seamless financial solutions, reflecting their comfort with technology and their expectations for user-centered design.

In addition to influencing Perceived Usefulness, the Perceived Ease of Use (PEU) also significantly influences the Attitude Toward Using (ATU). In micro-fintech, the significant effect of Perceived Ease of Use on Attitude Toward Using (ATU) is evident in the concept that the easier users perceive the technology is to use, the more positive their attitude towards it(Davis & Granić, 2024b). This positive attitude will ultimately increase interest and desire to use the available micro-fintech services. Previous research has shown that the EU variable often has a strong correlation with ATU. This finding suggests that the Perceived Ease of Use can play an important role in shaping user attitudes towards technology (Ajzen, 2020; Conner, 2020), especially among millennial Muslims who tend to be open to innovation but still consider sharia aspects in financial decision-making.

Besides the Ease-of-Use variable, another variable that also has a significant influence on attitude is the Perceived Usefulness, which indicates that the correlation between Perceived Usefulness (PU) and Attitude Toward Using (ATU) lies in the positive relationship between perceived benefits and user attitudes towards the use of the financial technology(Hu et al., 2019; S. Singh et al., 2020). When millennial Muslim users feel that micro fintech provides significant benefits –helping them manage their finances better or facilitating access to sharia financial services that were previously difficult to reach – their attitudes towards fintech will tend to be more positive (Davis & Granić, 2024b). Research shows that the higher the Perceived usefulness (PU), the greater the positive attitude (ATU) towards the use of technology.

Perceived usefulness serves as a determinant of both attitudinal and behavioral responses confirming that millennials tend to have a stronger intention to use Islamic digital BMT platforms if they believe the platform offers significant benefits for their needs and preferences (Chuttur, 2009; Davis & Granić, 2024b). Perceptions of the usefulness of Islamic financial technology include aspects such as transaction efficiency, ease of financial management in accordance with sharia principles, and long-term benefits in achieving their financial goals. The analysis revealed a significant relationship between the Perceived Usefulness (PU) variable and Behavioral Intention to Use (BIU) in the use of Islamic digital BMT by millennials, highlighting the significance of enhancing their positive perceptions of the platform's benefits(Balaskas et al., 2024). To increase the adoption of Islamic digital BMT among millennials, service providers need to focus on communication approaches that emphasize tangible benefits for users, such as ease of access to sharia-compliant financial products and services, as well as support in achieving halal and sustainable financial goals. By enhancing the perception of the platform's usefulness, millennials will

be more motivated to turn their intentions into actions by incorporating Islamic digital BMT as part of their daily financial activities.

Based on the analysis of the previous hypothesis, the Ease of Use and Usefulness greatly influence the attitude of millennial Muslims in using Islamic digital BMT. The significant impact of Attitude Toward Uses variables on Behavioral Intention to Use in millennials' digital BMT adoption underscores the important role of individual attitudes in financial technology adoption (Chuttur, 2009; Davis & Granić, 2024b). Factors such as perceived usefulness, security, and ease of use of digital BMT can be key motivators for millennials to embrace the platform. Therefore, in developing marketing or education strategies, it is crucial to support millennials' positive attitudes toward digital BMT by transparently communicating its benefits and security, while also providing a smooth and easy-to-use experience (Hosen et al., 2023).

In line with the TAM theory, behavior represents the key determinant in the process of technology adoption. The finding indicates that behavior significantly influences actual system usage. The behavioral intention of millennials to use micro-technology has a positive impact on the Actual Use of the platform. Although having a firm intention to adopt financial technology is adoption of crucial, its implementation plays a significant role in the micro-technology. This finding implies that millennials who have a firm intention to use digital BMT tend to be more proactive in incorporating the platform into their daily financial activities (Hu et al., 2019; S. Singh et al., 2020). The analysis shows a significant relationship between behavioral intention to use and actual usage variables in the use of micro-technology by millennials, underscoring the importance of understanding the factors that influence actual usage behavior in financial technology (Davis & Granić, 2024b). In addition to positive intentions, other factors such as availability of access, ease of use, and platform reliability can also affect the frequency and level of micro-technology utilization by millennials. Therefore,to encourage the adoption of micro-finance technology, companies and service providers (BMT) need to focus not only on increasing user interest but also on ensuring that the user experience is in accordance with their expectations and needs, thereby promoting more active and sustainable use.

CONCLUSION

This study employed the Technology Acceptance Model (TAM) to analyze the determinants influencing millennial adoption of BMT digitalization in Indonesia. The finding reveals that the Perceived Usefulness, Perceived Ease of Use, Attitude Toward Using, and Behavioral Intention to Use significantly affect adoption intention. The results indicate that the easier the BMT digitalization platform is to use, the more beneficial and acceptable it becomes for millennial users. The results of this study apply to various

parties, particularly BMTs or other forms of Islamic microfinance institutions, such as micro-waqf banks, *zakat* institutions, and so on. BMTs can improve the perceived usefulness and acceptance of their digital platforms to further increase acceptance among their millennial members. For policymakers and regulators, these findings provide insights into developing a supporting framework that can encourage technological innovation in Islamic microfinance. However, this study indeed has several limitations, such as the relatively short sampling duration, the limited sample size due to limited access to digital BMT users from the millennial generation, and the failure to include variables other than those already in the TAM that could further explain adoption behavior. Thus, the expectation for future research is to expand the sample, incorporate a greater variety of demographic groups, and include other relevant constructs to provide a more comprehensive understanding.

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The writing team conducted the following respective tasks:

1. Sri Cahyaning: analyzing the research background, selecting theories, collecting data, processing data, and analyzing them.
2. Shochrul and Ahmad: assisting with data collection and analysis.
3. Afifah Nur was responsible for drafting the manuscript according to the journal's template, and Faudah Johari provided additional, more in-depth discussion.

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