

Understanding Fintech Lending in Indonesia Using Technology Acceptance Model (TAM)

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Abstract— This study examines the influence of perceived usefulness and perceived ease of use on the intention to adopt fintech lending applications in Indonesia. The independent variables analyzed are perceived usefulness and perceived ease of use, with the dependent variable being the adoption of fintech lending applications. Using a quantitative approach and descriptive methodology, the research draws on primary data from 182 respondents. Sampling is conducted through a non-probability, purposive sampling method, focusing on individuals who have used fintech lending applications and reside in Indonesia. Questionnaires were distributed to respondents meeting these specific criteria. The results of the study, based on multiple regression analysis, demonstrate a significant positive relationship between perceived usefulness, perceived ease of use, and the adoption of fintech lending applications. The findings suggest that users are more inclined to adopt fintech lending platforms when they perceive them as easy to use, offering quick access to loans without requiring extensive information or documentation. This highlights the importance of user-friendly and efficient application design in encouraging the adoption of fintech lending technologies.

Keywords— Perceived usefulness, perceived ease of use, fintech lending.

I. INTRODUCTION

The rapid advancement of technology has led to significant transformations across various industries, with financial services being one of the most impacted sectors. Financial Technology (Fintech) has emerged as a major driver of change, revolutionizing how people access, manage, and use financial services. As Fintech continues to evolve, it is essential to understand the factors that influence its adoption to ensure its sustainability and wider acceptance. The Technology Acceptance Model (TAM), first introduced by Davis in 1989, is a widely used framework for understanding technology acceptance. TAM focuses on two key factors: perceived usefulness (PU) and perceived ease of use (PEOU), both of which have been consistently shown to influence technology adoption in various domains, including Fintech.

When applied to Fintech, TAM has proven effective in explaining the factors that drive the adoption of digital financial services. For instance, a study by Bawala and Tanaamah (2024) demonstrated that PU and PEOU significantly impact the adoption of digital payment platforms like OVO and GoPay in Indonesia. Similarly, Singh et al. (2020) found that, beyond PU and PEOU, social influence also plays a crucial role in shaping users' intention to adopt Fintech services.

TAM's adaptability to different contexts further strengthens its relevance in understanding Fintech adoption. For example, Hu et al. (2019) expanded TAM

by incorporating factors such as trust, government support, and perceived risk to examine Fintech adoption among bank users in China. In a similar vein, Aguagallo and Chicaiza (2022) highlighted the importance of administrative support and system quality in fostering Fintech acceptance within the retail sector in Ecuador.

The model has also been applied to specific Fintech applications, such as Bitcoin. A study by Won-jun (2018) found that PU and perceived security significantly influence the acceptance of Bitcoin, a leading Fintech innovation. Additionally, research by Perwitasari (2022) confirmed that PU and PEOU strongly affect the intention of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia to adopt Fintech solutions.

Moreover, Al-Okaily et al. (2021) emphasized the role of PU and perceived enjoyment in users' decisions to engage with Fintech services, with electronic word of mouth (eWOM) acting as a moderating factor in their study.

These studies collectively demonstrate that TAM—both in its original and expanded forms—is a powerful and adaptable tool for understanding the dynamics of Fintech adoption. Applying TAM in this research will provide valuable insights into the factors shaping people's attitudes toward Fintech, ultimately supporting more effective strategies for the development and adoption of financial technologies.

II. A BRIEF LITERATURE REVIEW

The Technology Acceptance Model (TAM) has become one of the most influential theoretical frameworks for analyzing the acceptance and use of new technologies. In the rapidly evolving domain of Financial Technology (Fintech), TAM has proven its utility in explaining how users form perceptions, attitudes, and intentions toward adopting technology-based financial services. Introduced by Davis (1989), TAM centers on two primary constructs: perceived usefulness

(PU) and perceived ease of use (PEOU). These factors interact to shape user attitudes, which subsequently influence their behavioral intention to adopt a particular technology.

Over the past decade, a significant body of research has leveraged TAM to explore the social, psychological, and technical determinants of Fintech acceptance. Figure 1 describes the detailed relationship among factors that affect the actual use of a system in TAM.

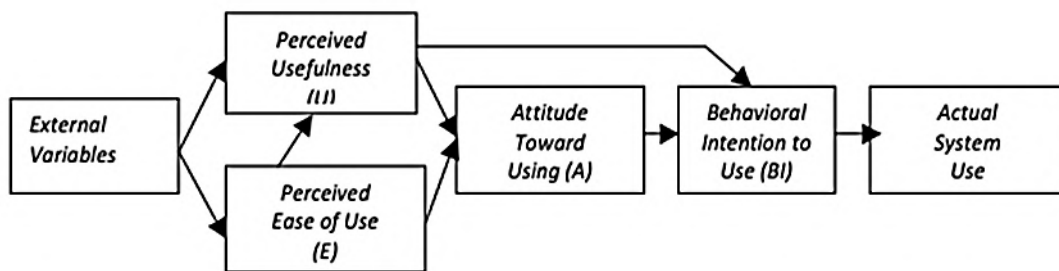


Figure 1. Technology Acceptance Model Scheme

Recent studies have expanded TAM to include trust and perceived risk as critical factors in understanding user adoption of Fintech. For instance, research by Hu et al. (2019) highlights trust as a pivotal element shaping user attitudes toward Fintech services, with other factors such as government support and brand image further reinforcing user trust. These findings suggest that trust serves as a mediator, linking perceived risk and user acceptance (Hu et al., 2019). Similarly, Singh et al. (2020) demonstrated that perceived usefulness and social influence significantly impact users' behavioral intentions to use Fintech services, while ease of use plays a more prominent role in determining actual usage (Singh et al., 2020).

Non-technical factors have also emerged as vital dimensions in extending TAM's applicability to Fintech. For example, Bawala and Tanaamah (2024) identified perceived security as a major determinant in the acceptance of digital payment platforms like OVO and GoPay. Their research underscores the importance of security in ensuring sustained use of Fintech services (Bawala & Tanaamah, 2024).

Additionally, Hatmawan (2021) integrated TAM with a value-based model to reveal that perceived value and security significantly influence user loyalty to Fintech services. Users who perceive Fintech as valuable and secure are more likely to remain consistent in their adoption (Hatmawan, 2021).

Demographic factors and social support further enrich the understanding of Fintech adoption through TAM. Kansal and Saha (2023) found that trust mediates the relationship between social factors and user intention to adopt Fintech, with attitudes playing a more significant role in influencing intention than trust itself (Kansal & Saha, 2023). Meanwhile, Singh et al. (2020) observed that older users are more concerned about security compared to younger generations, who exhibit greater openness to embracing new technologies (Singh et al., 2020).

Policy and regulatory frameworks have also been shown to influence Fintech adoption via TAM. Balaskas et al. (2024) emphasized the importance of government support in fostering trust, which in turn facilitates the adoption of digital financial services. The study highlights trust as a critical link between regulatory policies and user intention to adopt Fintech (Balaskas et al., 2024). In a related vein, Firmansyah et al. (2022) identified financial literacy and security as key determinants in Fintech acceptance, reinforcing the importance of user education alongside technological innovations (Firmansyah et al., 2022).

A meta-analysis by Scherer et al. (2019) corroborates the enduring relevance of TAM across various technological contexts, including Fintech. This study affirmed that PU and PEOU remain the primary predictors of technology adoption. However, the inclusion of external variables such as culture, digital

literacy, and perceived security enhances TAM's predictive power, making it more robust in diverse settings (Scherer et al., 2019).

In conclusion, TAM offers a comprehensive and adaptable framework for understanding user acceptance of Fintech. By incorporating additional elements such as trust, security, financial literacy, and government support, TAM provides valuable insights into the factors that drive user behavior. Recent studies confirm that TAM is not only effective in addressing technical considerations but also captures the social and psychological dimensions of technology adoption. These findings underscore the importance of TAM as a vital tool for researchers and practitioners in designing strategies to enhance Fintech adoption and user satisfaction in a rapidly evolving digital landscape.

III. RESEARCH METHODOLOGY

This study aims to explore how the perceived usefulness and ease of use of fintech lending platforms affect users in Indonesia. The research focuses on individuals who actively use fintech lending apps or websites in the country. To select participants, we use a purposive sampling method, a non-random approach that ensures participants have direct experience with fintech lending services. Our goal is to gather responses from at least 200 participants to ensure that the data collected is robust and suitable for meaningful analysis.

Data have been collected through primary sources, with the main tool being a questionnaire designed to capture in-depth information about users' perceptions and experiences. To reach a wide audience, the surveys have been distributed online using platforms Google Forms. Additionally, researcher has utilized social media channels such as Instagram and WhatsApp to engage potential respondents and encourage their participation. This strategy has helped us ensure a diverse and representative sample of fintech lending users across Indonesia.

IV. RESEARCH FINDING AND DISCUSSIONS

This research focuses on individuals using fintech lending applications in Indonesia. Data collection was carried out through Google Forms, eliminating the need for direct interaction with respondents. The questionnaire was distributed between August 1, 2024, and October 20, 2024. Out of 200 questionnaires sent out, 182 responses were received and analyzed. To ensure the instruments used were reliable, a reliability test was conducted to measure the consistency of responses over time.

The results showed that all indicators for each variable were reliable, with Cronbach's Alpha values exceeding 0.7. These values, confirmed the reliability of the instruments used in the study (Shackman, 2013; Jörg & Henseler, 2016).

Table 1. Reliability Test Result

Variable	The Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Perceived usefulness	0,781	0,798	0,610
Perceived ease of use	0,730	0,750	0,661
Fintech lending	0,744	0,733	0,671

The researchers performed tests to assess the linear correlation among the independent variables. The results showed no issues with collinearity, as evidenced by the Variance Inflation Factor (VIF) values listed in the Table 2 below, all of which are below 5. This confirms

that there is no multicollinearity among the independent variables, as VIF values under 5 indicate the absence of such problems (Shackman, 2013; Jörg & Henseler, 2016).

Table 2. Variance Inflation Factor

Variable	(M)	(y)
Perceived usefulness	2,201	2,825
Perceived ease of use	2,822	2,726
Fintech lending	2,602	2,028

The R-squared value, also known as the coefficient of determination, measures how well the independent variables explain the variance of the dependent variable. It ranges between 0 and 1, with values closer to 1

indicating a stronger explanatory power. For example, an R-squared value of 0.803 suggests that 80% of the variance in the dependent variable is explained by the independent variables, while the remaining 20% is

attributed to factors outside the model or error. A lower R-squared value indicates a larger error component.

The adjusted R-squared value addresses a common issue with R-squared: its tendency to increase with the addition of more independent variables, regardless of whether they improve the model. In contrast, adjusted R-squared evaluates the appropriateness of adding variables, ensuring they genuinely enhance the model's predictive power. For instance, if the R-squared value

for a dependent variable is 0.815, this indicates a strong explanatory relationship (Shackman, 2013; Jörg & Henseler, 2016).

Table 3. R Square

Variable	R Square	R Square Adjusted
Fintech lending	0,803	0,815

The following are results of the PLS algorithm processing in the research model used are as follows:

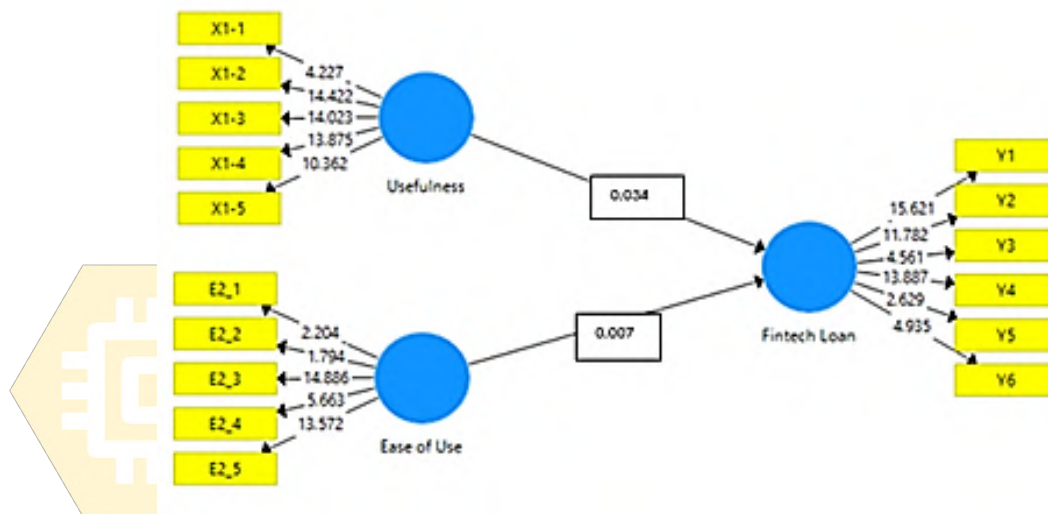


Figure 2. PLS Algorithm Model

The table below highlights the path coefficient values found in the original sample column, all of which are positive in this study. Each path has been tested, and the results are presented in the Table 4. A positive path

coefficient combined with a p-value of less than 0.05 indicates that the independent variable has a significant positive impact on the dependent variable (Shackman, 2013; Jörg & Henseler, 2016).

Table 4. Path Coefficient

H	Influence Between Pathways	Beta (Original Sample)	Sign	Sample Mean	T-Statistic	P-value	Meaning
H ₁	Perceived usefulness → Fintech lending	0,021	+	0,493	1,036	0,034	Perceived usefulness a positive effect on fintech lending
H ₂	Perceived ease of use → Fintech lending	0,017	+	0,344	0,683	0,007	Perceived ease of use a positive effect on fintech lending

Significant P-value (Sig.) At $\alpha = 5\%$

Perceived usefulness positively influences the adoption of fintech lending, as evidenced by the partial t-test results, which show a significant positive effect with a p-value of $0.000 < 0.05$. This finding aligns with previous studies by Mahfouz (2009) and Jiang et al. (2013), which also demonstrate that perceived usefulness significantly impacts fintech lending adoption. This suggests that users are more likely to embrace fintech lending platforms when they believe the

technology provides tangible benefits and effective solutions to their financial needs. When users perceive these platforms as convenient and efficient for accessing funds, their likelihood of adopting and utilizing the services increases.

Similarly, perceived ease of use has a significant positive effect on fintech lending, as confirmed by the partial t-test results with a p-value of $0.000 < 0.05$. This

is consistent with prior research by Wang et al. (2021) and Tzeng et al. (2020), which highlight that users are more inclined to adopt fintech lending platforms when they find them easy to navigate, apply for loans, and manage their accounts. An intuitive and user-friendly design reduces perceived complexity, instills confidence, and enhances user comfort, thereby increasing engagement with these platforms. Consequently, positive perceptions of ease of use play a critical role in driving higher adoption rates in the fintech lending industry.

V. CONCLUSION

The study highlights that perceptions of usefulness and ease of use are key drivers of fintech lending adoption among Indonesian users. When users perceive fintech lending applications as offering tangible benefits, such as quick and convenient access to funds, they are more likely to adopt the technology. Similarly, ease of use significantly influences behaviour, as intuitive interfaces and straightforward processes encourage users to engage with these platforms. User-friendly applications foster trust and confidence, making them more appealing to consumers.

The findings emphasize two critical factors in fintech lending adoption. First, users assess the utility of the application in addressing their financial needs, with higher perceived benefits leading to increased adoption. Second, ease of use ensures users can easily navigate the platform, apply for loans, and manage accounts, reducing barriers to adoption.

To enhance responsible adoption, the study offers several recommendations. Social influence plays a notable role, as individuals often adopt fintech lending based on the experiences of friends, family, or colleagues. However, this can lead to misuse for non-essential purposes. To address this, fintech companies should provide clear, transparent information about loan risks, including high interest rates, hidden fees, and potential consequences of default. Real-world examples can help users understand the risks.

Additionally, promoting financial literacy is vital. Hosting workshops on budgeting, debt management, and distinguishing healthy from high-risk credit can empower users to make informed decisions. These steps can foster responsible borrowing habits and sustainable growth in the fintech lending sector.

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