

The Role Of Financial Literacy In Enhancing Perceived Usefulness And Perceived Ease Of Use In FinTech Adoption: Evidence From Micro And Small Enterprises In Tangerang

Wahyudi, Kevin Dwi Karizki¹, Lingga, Margaretha Tiur Pasuria.

¹Swiss-German University, South East Asia, Indonesia, kevin.wahyudi@student.sgu.ac.id.

²Swiss-German University, South East Asia, Indonesia, margaretha.lingga@sgu.ac.id.

Corresponding Author: Margaretha Tiur Pasuria Lingga²

Abstract: This research explores how financial literacy influence the adoption of financial technology (FinTech) among micro and small enterprises (MSEs) in Tangerang. Using a sample of 172 MSE owners, the study employs the Structural Equation Modelling-Partial Least Squares (SEM-PLS) method for multivariate analysis. The study identifies perceived usefulness, perceived ease of use, attitudes, and financial literacy as independent variables and FinTech adoption as the dependent variable. The results support all hypotheses, indicating that perceived usefulness and perceived ease of use have a significant positive effect on FinTech adoption. Furthermore, attitudes toward FinTech and financial literacy also demonstrate significant positive impacts on FinTech adoption. These findings underscore the importance of perceived usefulness, perceived ease of use, attitudes, and financial literacy in driving FinTech adoption among MSEs in Tangerang. The implications of this research extend to policymakers, practitioners, and MSE owners aiming to enhance the integration of FinTech into their businesses.

Keywords: Financial Technology (FinTech), FinTech Adoption, Micro and Small Enterprises (MSEs), Technology Acceptance Model (TAM), Financial Literacy.

INTRODUCTION

Indonesia's economy was severely affected by the COVID-19 epidemic, but by 2022 there had been a noticeable recovery in growth. Success of Micro and Small Enterprises (MSEs) is strongly related to the government's strategy of increasing the interest rate of Bank Indonesia to stimulate the economy. These MSEs are vital for Indonesia's economic development since they have a substantial impact on the GDP and employment rate of the nation.

Despite their importance, Indonesian MSEs face challenges, with many unable to sustain their businesses. One of the primary factors affecting their longevity is the difficulty in accessing financing. Financial Technology (FinTech) has emerged as a potential solution to expand capital access for the MSEs. Its flexibility and ability of reaching consumers have brought positive transformation to the Indonesian market, improving financial inclusion, and creating new opportunities in the financial sector.

Due to extensive usage of smartphones and benevolent government regulations, Indonesia has seen substantial growth in the fintech sector over the past decade. While there are numerous FinTech companies, financial inclusion and literacy rates are still very low (2.56% and 10.90%

respectively), especially for MSEs. Due to this, FinTech's potential to empower the financially excluded and underserved communities cannot be fully realized.

The study's focus is to examine the degree of financial literacy and its relation to FinTech adoption in the Tangerang community. Indonesia's FinTech landscape is poised for further growth, and the research aims to address the current decline in FinTech performance, especially around peer-to-peer lending. The study will also investigate the influence of Technology Acceptance Model (TAM) on individual FinTech adoption.

Micro enterprises make up the largest percentage of MSEs in Indonesia, with small businesses coming in second. Thus, both micro and small businesses will be the focus of this research. Fostering financial inclusion and economic growth requires an understanding of the critical role which financial literacy plays in influencing attitudes and adoption of FinTech products among MSEs. It is expected that the findings would offer valuable insights for promoting FinTech adoption and supporting Indonesia's entrepreneurial community.

This research will shed light on the significance of financial literacy in driving FinTech adoption and its impact on the growth of MSEs in Indonesia. By addressing the challenges faced by MSEs, this study aims to contribute to the development of methods that encourage FinTech adoption and promote financial inclusion, thus propelling economic growth in the country.

LITERATURE REVIEW

Theory of Technology Acceptance Model (TAM)

Technology is perceived differently by individuals, as demonstrated by the Theory of Reasoned Action Model (TRA) and Technology Acceptance Model (TAM). These models suggest that people's perceptions of technology's advantages influence their acceptance and usage of IT systems (Davis, 1989; Hill et al., 1975; Marikyan & Papagiannidis, 2022; Syah, 2013). When a user group expresses a desire to utilize an IT system in their job, it is considered accepted by the users.

The modern and complex nature of technology presents significant advantages if used properly. For instance, online shops offer convenience without the need for a physical presence, making business operations more manageable through computers, laptops, or mobile phones (Nugraha et al., 2022; Prastiawan et al., 2021). This accessibility allows businesses to track orders and customer visits efficiently. The Technology Acceptance Model (TAM) further illustrates how user perceptions impact their attitude toward technology usage, focusing on factors like usefulness and ease of use, which influence actual adoption and usage of technology, such as FinTech applications.

Unified Theory of Acceptance and Use of Technology (UTAUT)

A well-known theoretical framework designed by Venkatesh et al. (2003) with the goal of explaining technology adoption behaviour across many dimensions is known as the Unified Theory of Acceptance and Use of Technology (UTAUT). The Technology Acceptance Model (TAM) (Davis, 1989), the Theory of Reasoned Action (TRA), and the Theory of Planned Behaviour (TPB) are just a few of the well-known technology acceptance models that UTAUT incorporates and builds upon. UTAUT's ability to integrate crucial components from many technological acceptance theories gives it an edge over competing theories. Based on Venkatesh et al. (2003, 2012), it includes the performance expectancy, effort expectancy, social influence, and facilitating factors as four key dimensions that affect technology adoption. While effort expectancy is related to the perceived ease of use, performance expectancy is the user's expectation that employing the technology would result in better performance results. When deciding whether to adopt a newly introduced technology,

social influence takes into account the influence of outside variables including peer recommendations and social norms. The resources and assistance that users can use to embrace technology are referred to as facilitating conditions.

The Unified Theory of Acceptance and Use of Technology (UTAUT) has become a comprehensive and significant theoretical framework for researching technology adoption behaviours. UTAUT offers a comprehensive knowledge of the variables influencing people's decisions to accept and utilize technology by merging components from other technology acceptance models. However, given the complexity of UTAUT, researchers may opt for alternative models, such as the Technology Acceptance Model (TAM), when investigating specific adoption behaviours in focused contexts, such as fintech adoption among Micro and Small Enterprises in Tangerang.

Perceived Usefulness

Perceived usefulness plays a crucial role in the adoption of Financial Technology (FinTech), impacting consumers' acceptance of various FinTech services. The Technology Acceptance Model (TAM), introduced by Davis (1989), and the Unified Theory of Adoption and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), both emphasize perceived usefulness as a significant element influencing user acceptance of FinTech. Studies by Anifa et al. (2022), Gomber et al. (2018), Hasan et al. (2022) and Luo et al. (2022) have all demonstrated the strong link between perceived usefulness and user intentions to adopt mobile payment services, blockchain technology, and mobile banking services. These theoretical models and empirical findings offer valuable insights for FinTech providers and policymakers seeking to enhance technology adoption among consumers (Hasan et al., 2021; Hau Nguyen et al., 2021; Thathsarani & Jianguo, 2022).

Perceived Ease of Use

Perceived ease of use plays a vital role in the adoption of FinTech products and services. According to the Technology Acceptance Model (TAM) proposed by Davis (1989), perceived ease of use directly influences consumers' perception of technology's utility, reflecting the extent to which users believe that utilizing a particular system would be effortless. Various studies have highlighted the impact of perceived ease of use on FinTech adoption. For instance, research by Alalwan et al. (2017) showed that Jordanian bank customers significantly adopted mobile banking due to its perceived ease of use, while research by Cheah et al. (2011) found that perceived ease of use was a significant factor driving the use of mobile banking in Malaysia. In another study, Hasan et al. (2021) demonstrated that consumers' intentions to use mobile payment systems in the Netherlands were strongly influenced by the perceived ease of use.

TAM offers a theoretical framework that explains the relationship between perceived ease of use and technology adoption. It suggests that perceived ease of use is a key factor influencing perceived usefulness, which, in turn, impacts consumer attitudes toward technology adoption and their willingness to accept it (Davis, 1989). Consequently, in the context of FinTech, individuals are more likely to embrace a product or service if they perceive it to be user-friendly and easy to use before considering its benefits.

Attitudes

The term "attitude" in the context of FinTech refers to users' thoughts and feelings regarding the technology. Ajzen (1991) asserts that an individual's attitude is a key factor in determining their

behaviour intentions, including their use of technology. The idea of attitude has been used in several research to analyze user acceptability of FinTech. For instance, Alalwan et al. (2017) study discovered that users' attitudes regarding FinTech had a favourable impact on their willingness to adopt it. The attitudes of a person to utilize a technology are substantially influenced by how useful and simple it is regarded to be (Davis, 1989).

The connection between attitude and TAM in the context of FinTech has been the subject of several research. In a research by Himel et al. (2021), for instance, it was discovered that attitude strongly modulates the association between perceived usefulness and intention to use mobile payment services. Similar findings were observed in a research by Saparudin et al. (2022) that revealed attitude modulates the connection between perceived usefulness and intention to use mobile banking. These studies explained that attitudes indirectly affects the adoption of FinTech. Within the attitudes, other factors such social influence and trust also plays an important role (Alalwan et al., 2017).

Financial Literacy

Financial literacy plays a crucial role in the adoption of FinTech services. It refers to individuals' awareness and understanding of basic finance, which influences their decision-making abilities in managing personal finances, investments, and financial planning (Nugraha et al., 2022). Several studies have demonstrated a positive relationship between financial literacy and FinTech adoption (Kakinuma, 2022; Pratiwi & Saefullah, 2022; Setiawan et al., 2021). Higher levels of financial literacy are associated with a greater likelihood of adopting FinTech services, such as mobile banking and online payment methods (Pratiwi & Saefullah, 2022). However, demographic factors like age, income, and education level also moderate this relationship (Luo et al., 2022). Although younger people are more likely to embrace FinTech services regardless of their financial literacy levels, the influence of financial literacy on FinTech adoption tends to be greater among those with higher education levels and income (Dinh, 2022).

Policymakers and stakeholders should concentrate on creating programs and policies that improve financial literacy in order to promote the use of FinTech services across diverse demographic groups. By providing people with greater financial education, they may make better decisions and use FinTech products and services more successfully to improve their financial well-being (Mahmud et al., 2022). The adoption of FinTech may be made more accessible, benefiting a broader segment of the population and promoting more financial inclusion, by addressing the lack of financial literacy.

FinTech Adoption

FinTech adoption encompasses the utilization of communication, secure financial transactions, internet ubiquity, and automated processing of financial information and transactions (Davradakis & Santos, 2019). Attitude towards FinTech adoption is influenced by factors such as perceived usefulness, perceived ease of use, and social influence (Singh et al., 2020). The benefits of FinTech adoption include increased financial inclusion and improved access, availability, and quality of financial services (Thatsarani & Jianguo, 2022). However, FinTech adoption also comes with risks, including cybersecurity, operational, and privacy risks, necessitating proper regulations and oversight (Ali et al., 2021; Hu et al., 2019).

Various factors influence FinTech adoption, such as age, income, education, and prior experience with financial services. Financially literate and well-informed young individuals are more likely to embrace certain FinTech products if they perceive them as transparent and legally

conducted (Dinh, 2022). Furthermore, individuals who have experienced convenience and simplicity are more inclined to adopt FinTech services (Hasan et al., 2021). Understanding these factors and striking a balance between benefits and risks is crucial in fostering widespread and secure FinTech adoption.

Hypothesis Development

Perceived Usefulness and FinTech Adoption:

Perceived usefulness, defined as users' perception of how effectively a technology satisfies their financial needs and demands, has been found to be a significant predictor of technology adoption (Venkatesh & Davis, 2000). Several studies support the idea that perceived usefulness positively influences FinTech adoption. For example, research by Alalwan et al. (2016) found that perceived usefulness was positively associated with the adoption of Telebanking in Jordan. Similarly, Yi et al. (2023) demonstrated that perceived usefulness had a greater impact on the adoption of robo-advisory services than perceived trust or ease of use. Therefore, the hypothesis proposed is as follow:

H1: Perceived Usefulness has a positive effect on FinTech Adoption.

Perceived Ease of Use and FinTech Adoption:

Perceived ease of use, referring to users' perception of how easy a financial system is to understand and operate, plays a significant role in technology adoption (Davis, 1989). Research supports the positive relationship between perceived ease of use and FinTech adoption. Moon & Kim (2001) found that customers' opinions regarding internet banking were highly influenced by perceived ease of use. Hu et al. (2019) also discovered that consumers' intention to use technology was significantly influenced by perceived ease of use. Therefore, the hypothesis proposed is as follow:

H2: Perceived Ease of Use has a positive effect on FinTech Adoption.

Perceived Usefulness and Perceived Ease of Use Towards Attitudes:

It has been demonstrated that the combination of perceived usefulness and perceived ease of use has an even greater effect on intentions to use FinTech than each factor alone (Davis, 1989; Moon & Kim, 2001; Venkatesh et al., 2003). Users are more likely to see FinTech adoption favorably if they believe it to be both beneficial and easy to use. This positive attitude could enhance intentions to embrace FinTech and promote adoption rates. Therefore, the hypothesis proposed is as follow:

H3a: Perceived Usefulness has a positive effect on attitudes (intentions to use).

H3b: Perceived Ease of Use has a positive effect on attitudes (intentions to use).

Attitude and FinTech Adoption:

Consumer attitudes towards FinTech adoption are positively influenced by perceived advantages, simplicity, and security (Himmel et al., 2021). Positive attitudes are associated with increased accessibility, convenience, and cost-effectiveness (Hu et al., 2019). Social influence, performance expectancy, and trust have also been found to impact consumer attitudes towards FinTech adoption (Alalwan et al., 2017; Ali et al., 2021). A favourable attitude towards FinTech may lead to higher adoption rates and increased customer satisfaction. Therefore, the hypothesis proposed is as follow:

H4: Attitudes toward FinTech has a positive effect on FinTech Adoption.

Financial Literacy and FinTech Adoption:

Financial literacy has been positively correlated with the adoption of FinTech products and services (Gomber et al., 2018; Yi et al., 2023). Individuals with higher financial literacy levels may better understand the benefits of FinTech and be more confident in using the technology effectively (Dinh, 2022; Kakinuma, 2022; Nugraha et al., 2022). Financial education and literacy initiatives may play a crucial role in promoting the adoption of FinTech tools to help individuals manage their finances effectively. Therefore, the hypothesis proposed is as follow:

H5: Financial Literacy has a positive effect on FinTech Adoption.

RESEARCH

Type of Study:

The type of study used in this research is a quantitative method. Quantitative research aims to generate numerical data and transform it into statistics, percentages, etc., to quantify the issue under investigation (Cooper & Schindler, 2014). In this study, the researcher will use Likert Scale questionnaires to collect primary data and analyze the relationship between the independent variables (perceived usefulness, perceived ease of use, attitude, and financial literacy) and the dependent variable (FinTech adoption). Additionally, secondary data from prior studies, textbooks, and other relevant literature will be used to support the study's foundation.

Unit of Analysis and Population Target:

The unit of analysis in this study is the entrepreneurs, and the population target is the population of Indonesian Micro and Small Enterprises (MSEs) owners or players. The study focuses on how perceived usefulness, perceived ease of use, attitude, and financial literacy of the users affect FinTech adoption among MSEs players.

Sampling Method and Size:

The sampling method used in this study is random sampling, where a random sample of the population is selected. The study will target a minimum sample size of 154 respondents, as calculated based on the number of indicators and estimated parameters in the Structural Equation Model (SEM) (Hair et al., 2022). The random sampling technique allows for a representative sample that can explain the actual status of the population.

Type of Data and Data Collection Method:

Primary data and secondary data are the two types of data that the study collects. By distributing questionnaires with a Likert scale, primary data will be collected. Both onsite and online distributions of the questionnaire will take place, with onsite distributions involving visits to MSEs in the Tangerang city area. Secondary data, on the other hand, will be gathered from prior studies, textbooks, and other relevant literature to support the study's variables. Additionally, this study will also include interviews to provide a more comprehensive insight and understanding of the findings. The data collection method used in this study is quantitative research, focusing on the relationship between the variables through the use of questionnaires and statistical analysis.

RESULT AND DISCUSSION

H1: Perceived Usefulness has a significant and positive effect on FinTech Adoption.

Table 1. Path Coefficient Model Results Of H1

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H1	4.301	0.261	0.000	Hypothesis Supported

Source: Data of Research

The hypothesis (H1) that Perceived Usefulness has a significant and positive effect on FinTech Adoption is **supported** by the path coefficient of 0.261, which indicates a positive relationship, and the T statistic of 4.301, exceeding the critical value for statistical significance with a p-value of 0.000. This finding aligns with previous research by Alalwan et al. (2016), Cheah et al. (2011), and Hasan et al. (2021), which also found a positive correlation between perceived usefulness and the adoption of technology in different contexts.

The respondent profiles provide valuable insights supporting H1, which states that Perceived Usefulness has a significant and positive effect on FinTech adoption. The high adoption rates of FinTech products among respondents indicate that individuals perceive these services as useful for their financial needs, valuing their functionality and convenience in simplifying financial transactions. Users are more likely to adopt FinTech when they perceive it as a convenient and efficient solution that saves time, streamlines financial processes, and provides greater control over their financial activities. The statistical data on the Perceived Usefulness variable further supports this, with indicators PU2 and PU1 showing the highest average values, indicating the importance of efficient time-saving solutions and fulfilling individual financial requirements.

H2: Perceived Ease of Use has a significant and positive effect on FinTech Adoption.

Table 2. Path Coefficient Model Results Of H2

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H2	4.782	0.331	0.000	Hypothesis Supported

Source: Data of Research

The hypothesis (H2) stating that Perceived Ease of Use has a significant and positive effect on FinTech Adoption is **supported** by the path coefficient of 0.331, indicating a positive relationship, and the T statistic of 4.782, which exceeds the critical value for statistical significance with a p-value of 0.000. Similar to previous research by Hasan et al. (2021), Hu et al. (2019), and Nugraha et al. (2022), this study also found that perceived ease of use positively influences FinTech adoption. Nugraha et al. (2022) additionally highlighted the indirect impact of perceived ease of use on an individual's financial behaviour, reinforcing the consistency of the findings with the current investigation.

The respondent profiles provide evidence supporting H2, which states that perceived ease of use has a significant and positive effect on FinTech adoption. The high adoption rates of FinTech products across different demographics indicate that these platforms are perceived as user-friendly and easy to navigate. The simplicity and intuitive nature of FinTech solutions contribute to their popularity, as users are more likely to embrace technologies that require minimal effort and technical expertise. The two highest indicators of perceived ease of use (PEU4

and PEU1) further demonstrate the ease of accessing FinTech services, making them user-friendly and easily understandable for individuals with varying levels of technological proficiency.

H3a: Perceived Usefulness has a significant and positive effect on Attitudes.

Table 3. Path Coefficient Model Results Of H3a

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H3a	2.483	0.238	0.013	Hypothesis Supported

Source: Data of Research

The hypothesis (H3a) stating that Perceived Usefulness has a significant and positive effect on Attitudes is **supported** by the path coefficient of 0.238, indicating a positive relationship, and the T statistic of 2.483, which exceeds the critical value for statistical significance with a p-value of 0.013. Similar to the research by Himel et al. (2021) and Saparudin et al. (2022), this study found that perceived usefulness significantly contributes to individuals' attitudes toward using FinTech services. The results underscore the importance of recognizing the practical value and benefits of FinTech products in shaping positive attitudes among users.

H3b: Perceived Ease of Use has a significant and positive effect on Attitudes.

Table 4. Path Coefficient Model Results Of H3b

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H3b	6.112	0.530	0.000	Hypothesis Supported

Source: Data of Research

The hypothesis (H3b) suggesting that Perceived Ease of Use has a significant and positive effect on Attitudes is **supported** by the path coefficient of 0.530, indicating a positive relationship, and the T statistic of 6.112, which significantly exceeds the critical value for statistical significance with a p-value of 0.000. In line with the research by Himel et al. (2021) and Saparudin et al. (2022), this study also found that perceived ease of use has a significant impact on individuals' attitudes toward using FinTech services. However, this study revealed that perceived ease of use has a stronger influence on attitudes compared to perceived usefulness, as indicated by higher t-statistics values. The findings underscore the importance of both ease of use and perceived usefulness in shaping individuals' attitudes and overall acceptance of FinTech, indicating a stronger combined influence on their adoption behaviour.

Looking at H3a "Perceived Usefulness has a significant and positive effect on Attitudes" and H3b "Perceived Ease of Use has a significant and positive effect on Attitudes," the respondent profiles provide insights into individuals' attitudes towards FinTech adoption. The high adoption rates of FinTech products indicate positive attitudes towards their usefulness and ease of use. The profiles reveal that individuals from different demographics, including gender, age groups, and education levels, recognize the practical benefits and convenience offered by FinTech services. These positive attitudes towards the usefulness and ease of use of FinTech solutions contribute to higher adoption rates, supporting the hypotheses.

Positive attitudes towards FinTech are shaped by individuals' recognition of the practical benefits it provides, ease of use, and intuitive operation. Confidence in the perceived usefulness of FinTech leads individuals to believe that it can improve their financial management, enhance decision-making, and grant access to a broader range of financial services. The user-friendly and straightforward nature of FinTech solutions eliminates potential barriers arising from complex financial processes, fostering trust, comfort, and a positive attitude towards adoption. Additionally, positive experiences and success stories shared by others play a role in shaping attitudes, reinforcing the appeal of FinTech.

H4: Attitudes toward FinTech has a significant and positive effect on FinTech Adoption.

Table 5. Path Coefficient Model Results Of H4

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H4	4.908	0.291	0.000	Hypothesis Supported

Source: Data of Research

The hypothesis (H4) stating that Attitudes toward FinTech have a significant and positive effect on FinTech Adoption is **supported** by the path coefficient of 0.291, indicating a positive relationship, and the T statistic of 4.908, which significantly exceeds the critical value for statistical significance with a p-value of 0.000. These results are consistent with previous research by Himel et al. (2021), Raza et al. (2017), and Saparudin et al. (2022), all of which found a significant and positive impact of attitudes on FinTech Adoption. It is widely acknowledged that attitude plays a crucial role in an individual's intention to adopt technology. The consistent findings from these studies provide strong evidence for the significance of attitudes in shaping individuals' willingness to adopt FinTech services.

Regarding H4 "Attitudes toward FinTech has a significant and positive effect on FinTech Adoption," the respondent profiles provide evidence supporting this relationship. The widespread adoption of FinTech products among the respondents suggests that their positive attitudes towards these services have influenced their decision to adopt them. The recognition of the value and convenience of FinTech solutions likely contributes to individuals' favourable attitudes, leading to higher rates of adoption. Positive attitudes towards FinTech are influenced by factors such as positive experiences, word-of-mouth recommendations, and social influences. Individuals perceive FinTech as empowering, improving financial well-being, and aligning with their values and lifestyle choices. Trust in FinTech providers and the willingness to embrace innovative financial solutions also play a role in shaping attitudes. The descriptive statistics of the Attitudes variable further support this, as respondents indicated that using FinTech products for their business purposes is a good idea, as indicated by the highest mean value of the AF1 indicator.

H5: Financial Literacy has a significant and positive effect on FinTech Adoption.

Table 6. Path Coefficient Model Results Of H5

Hypothesis	T-Statistics	Path Coefficients	p-value	Conclusion
H5	2.162	0.121	0.031	Hypothesis Supported

Source: Data of Research

The hypothesis (H5) stating that Financial Literacy has a significant and positive effect on FinTech Adoption is **supported** by the path coefficient of 0.121, indicating a positive relationship, and the T statistic of 2.162, which exceeds the critical value and shows statistical significance with a p-value of 0.031. However, the findings are different from those of Nugraha et al. (2022), who found that financial literacy indirectly influences FinTech adoption through user innovativeness. This disparity may be attributed to regional variations in financial literacy levels, as observed in Pratiwi & Saefullah (2022) study. It was found that financial literacy positively influences FinTech adoption through perceived ease of use, but the impact of financial literacy may be diminished in regions with uneven financial literacy levels, particularly in the context of payment technology. Therefore, it is important to consider regional variations in financial literacy levels when examining the relationship between financial literacy and FinTech adoption.

H5 "Financial Literacy has a significant and positive effect on FinTech Adoption" proposes that financial literacy plays a role in FinTech adoption, although specific data on financial literacy is not available in the respondent profiles. The high adoption rates of FinTech products across different education levels indirectly suggest that individuals with higher financial literacy may be more likely to recognize the benefits of using FinTech services, leading to increased adoption. Financially literate individuals understand the potential advantages of FinTech, such as improved financial outcomes, efficient transactions, and access to a broader range of financial products and services. The descriptive statistics of the Financial Literacy variable support this, as respondents recognized the importance of financial understanding, as indicated by the highest mean values of FL1 and FL2, representing an individual's understanding of finance and bank awareness, respectively.

Further Discussion

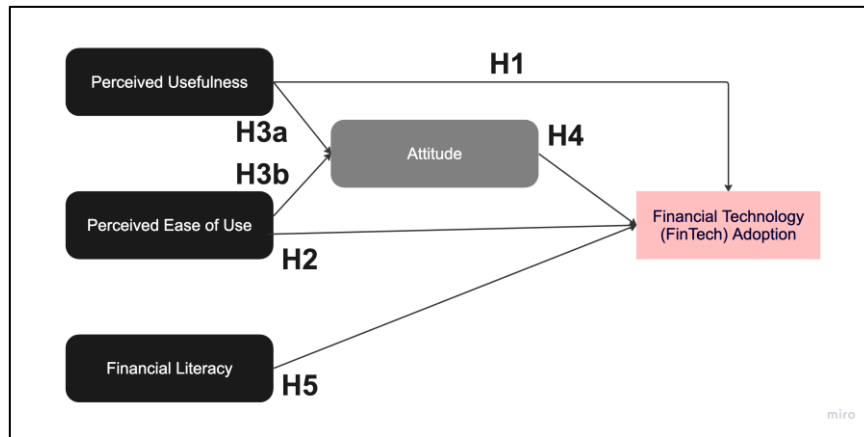
In this study, an interesting finding emerged from both the descriptive statistics and respondent profiles. The data indicated that despite their acknowledged importance, FinTech users tend to prioritize aspects other than confidentiality and security. Nevertheless, the majority of users shown in respondent profiles, who were well-educated (about 72% are higher than high school degree) and using FinTech services extensively, remained confident in the convenience and benefits offered by these platforms, which led to their adoption. Risk mitigation strategies, such as limiting balances and transactions, were employed to address their lack of security and confidentiality awareness, ensuring minimal potential losses.

Furthermore, from the previous discussion, it is clear that financial literacy played a significant role in influencing users' attitudes towards FinTech adoption. Financially literate individuals demonstrated a better understanding of FinTech's advantages, leading to increased perceived usefulness. They also felt more at ease using digital tools, which positively influenced their perceived ease of use. Moreover, their ability to evaluate risks in a balanced manner fostered positive attitudes towards FinTech. Financial literacy also engendered trust and confidence in FinTech providers, resulting in more favourable views towards adoption.

The adoption of FinTech and people's impressions of it have both been significantly influenced by their financial literacy. Users felt more beneficial as a result of being able to understand the advantages and features of FinTech products. People who are financially literate also feel more at ease using digital interfaces, which raises the perceived ease of use.

Furthermore, their ability to identify risks and make educated judgments increased trust in FinTech suppliers, promoting positive attitudes toward adoption.

As a result of the importance of financial literacy, stakeholders should take action to increase user knowledge and awareness. Financial education initiatives may foster a more robust and expanded FinTech adoption environment, which is advantageous to both users and the financial industry as a whole. Financial institutions, policymakers, and FinTech companies may support a more assured and knowledgeable user base by providing consumers with financial knowledge, which will promote higher adoption as well as utilization of the latest financial technology.



Source: Picture of Research

Picture 1. Conceptual Framework

CONCLUSION

This study demonstrates how people's perceptions of usefulness and ease of use have a significant impact on how they adopt fintech. It emphasizes how important it is for people to view FinTech solutions as practical and simple to use when determining whether to adopt new technology. The study also demonstrates that sentiments about FinTech are positively impacted by these assumptions. It highlights how crucial it is for FinTech companies to place a high priority on practical design, efficient communication, and security measures to improve usability and ease of use, which will eventually result in more favorable perceptions of FinTech.

Furthermore, the findings of this study highlight the significant role and positive effects of attitudes towards FinTech adoption. Positive attitudes toward FinTech have a major impact on an individual's adoption decision, understanding the importance of creating favourable perceptions and overcoming potential barriers or concerns. This implies that FinTech providers must invest in building connections with their users, showcase the benefits of their services, and actively address user concerns to foster a positive attitude towards FinTech.

Moreover, this study, reveals that the financial literacy positively influence the adoption of FinTech. The findings suggest that individuals with higher levels of financial literacy are more likely to adopt FinTech. This implies that initiatives to improve financial literacy and provide educational resources can have a meaningful impact on increasing adoption rates and empowering individuals to make informed financial decisions. However, the relatively low levels of confidentiality and security in comparison to other indicators in FinTech can be addressed through the establishment of trust and the amount of financial transactions.

Additionally, further research is recommended to explore unexplained factors, such as trust and government support on FinTech adoption. Including these aspects in future studies will

provide a more comprehensive understanding of the subject, offering accurate insights into actual FinTech adoption among MSEs. A greater knowledge of the decision-making process for adopting FinTech may be gained by looking at the impact of governmental backing, regulatory frameworks, and financial incentives. By encouraging growth and development in the FinTech industry and promoting financial inclusion, thorough research might generate suggestions for stakeholders and policymakers that are more suited to their needs. This is advantageous for people, companies, and the economy as a whole.

In summary, the research offers useful information to various types of FinTech industry players. The recommendations for FinTech companies include concentrating on user-friendly platforms that prioritize usefulness and ease of use, carrying out effective advertising and educational campaigns, encouraging transparency, implementing robust security measures, and maintaining a strong reputation to increase user trust. Policymakers should prioritize financial literacy programs and supportive policies to empower individuals and bridge the digital divide. For Micro, Small Enterprises (MSEs), the emphasis should be on highlighting the perceived benefits of FinTech solutions for their businesses, prioritizing user-friendly FinTech platforms, and providing adequate training and support. Additionally, further research is recommended to explore additional factors like trust and government support, which can contribute to a more comprehensive understanding of FinTech adoption among MSEs and inform more targeted strategies for stakeholders and policy makers. Overall, implementing these recommendations can contribute to the growth and development of the FinTech industry, promoting financial inclusion, and benefiting individuals, businesses, and the economy as a whole.

REFERENCES

- Ajzen, I. (1991). Reporting Behaviour of People with Disabilities in relation to the Lack of Accessibility on Government Websites: Analysis in the light of the Theory of Planned Behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179–211. <https://doi.org/10.47985/dcidj.475>
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99–110. <https://doi.org/10.1016/j.ijinfomgt.2017.01.002>
- Alalwan, A. A., Dwivedi, Y. K., & Simintiras, A. C. (2016). Influence of Perceived Usefulness, Trust and Self-Efficacy on Consumers' Adoption of Telebanking: Insights from Jordan Introduction. *International Journal of Bank Marketing*, 34(5).
- Ali, M., Raza, S. A., & Puah, C. (2021). *How perceived risk, benefit and trust determine user Fintech adoption: a new dimension for Islamic finance* How Perceived Risk, Benefit and Trust Determine User Fintech Adoption: A New Dimension for Islamic Finance (Issue April). <https://doi.org/10.1108/FS-09-2020-0095>
- Anifa, M., Ramakrishnan, S., Joghee, S., Kabiraj, S., & Bishnoi, M. M. (2022). Fintech Innovations in the Financial Service Industry. *Journal of Risk and Financial Management*, 15(7). <https://doi.org/10.3390/jrfm15070287>
- Cheah, C.-M., Oon, K. H., Jia, S. J., & Tan, B. I. (2011). Factors Affecting Malaysian Mobile Banking Adoption: An Empirical Analysis. *International Journal of Network and Mobile Technologies*, 2(Issue 3).
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Method* (12th ed.). McGraw-Hill.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of

- information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. <https://doi.org/10.2307/249008>
- Davradakis, E., & Santos, R. (2019). *Blockchain , FinTechs and* (2019/01). <https://doi.org/https://doi.org/10.2867/11329>
- Dinh, M. T. P. (2022). *Financial Literacy and Fintech Adoption Among the Young. April.*
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, 35(1), 220–265. <https://doi.org/10.1080/07421222.2018.1440766>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *International Journal of Research & Method in Education* (Vol. 38, Issue 2). SAGE Publications. <https://doi.org/10.1007/978-3-030-80519-7>
- Hasan, R., Ashfaq, M., & Shao, L. (2021). Evaluating Drivers of Fintech Adoption in the Netherlands. *Global Business Review*. <https://doi.org/10.1177/09721509211027402>
- Hau Nguyen, V., Thu Cuc Nguyen, T., Thu Nguyen, V., & Tai, D. Do. (2021). Internal Factors Affecting Firm Performance: A Case Study in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(5), 303–314. <https://doi.org/10.13106/jafeb.2021.vol8.no5.0303>
- Hill, R. J., Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. *Contemporary Sociology*, 6(2), 244. <https://doi.org/10.2307/2065853>
- Himel, M. T. A., Ashraf, S., Bappy, T. A., Abir, M. T., Morshed, M. K., & Hossain, M. N. (2021). Users' attitude and intention to use mobile financial services in Bangladesh: an empirical study. *South Asian Journal of Marketing*, 2(1), 72–96. <https://doi.org/10.1108/sajm-02-2021-0015>
- Hu, Z., Ding, S., Li, S., Chen, L., & Yang, S. (2019). Adoption intention of fintech services for bank users: An empirical examination with an extended technology acceptance model. *Symmetry*, 11(3). <https://doi.org/10.3390/sym11030340>
- Kakinuma, Y. (2022). Financial literacy and quality of life: a moderated mediation approach of fintech adoption and leisure. *International Journal of Social Economics*, 49(12), 1713–1726.
- Luo, S., Sun, Y., & Zhou, R. (2022). Can fintech innovation promote household consumption? Evidence from China family panel studies. *International Review of Financial Analysis*, 82(October 2021), 102137. <https://doi.org/10.1016/j.irfa.2022.102137>
- Mahmud, K., Joarder, M. M. A., & Muheymin-Us-Sakib, K. (2022). Adoption Factors of FinTech: Evidence from an Emerging Economy Country-Wide Representative Sample. *International Journal of Financial Studies*, 11(1), 9. <https://doi.org/10.3390/ijfs11010009>
- Marikyan, D., & Papagiannidis, S. (2022). Technology Acceptance Model: A review. *TheoryHub Book*, 306–308. <https://doi.org/10.4018/978-1-59140-792-8.ch038>
- Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. *Information and Management*, 38(4), 217–230. [https://doi.org/10.1016/S0378-7206\(00\)00061-6](https://doi.org/10.1016/S0378-7206(00)00061-6)
- Nugraha, D. P., Setiawan, B., Nathan, R. J., & Fekete-Farkas, M. (2022). Fintech Adoption Drivers for Innovation for SMEs in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4). <https://doi.org/10.3390/joitmc8040208>
- Prastiawan, D. I., Aisjah, S., & Rofiaty, R. (2021). The Effect of Perceived Usefulness,

- Perceived Ease of Use, and Social Influence on the Use of Mobile Banking through the Mediation of Attitude Toward Use. *Asia Pacific Management and Business Application*, 009(03), 243–260. <https://doi.org/10.21776/ub.apmba.2021.009.03.4>
- Pratiwi, R. E., & Saefullah, K. (2022). The Use of Payment Technology Through Financial Literacy. *Journal of Digital Innovation Studies*, 1(1), 42–51. <https://doi.org/10.24198/digits.v1i1.38516>
- Raza, S. A., Umer, A., & Shah, N. (2017). New determinants of ease of use and perceived usefulness for mobile banking adoption. *International Journal of Electronic Customer Relationship Management*, 11(1), 44. <https://doi.org/10.1504/ijecrm.2017.10007744>
- Saparudin, M., Indra, B., Sutia, S., Rahardjo, B., & Adha, S. (2022). *An empirical investigation of mobile banking adoption in Jakarta : Theory Acceptance Model*.
- Setiawan, B., Nathan, R. J., Irawan, A., & Zoltan, Z. (2021). User innovativeness and fintech adoption in indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3). <https://doi.org/10.3390/joitmc7030188>
- Singh, S., Sahni, M. M., & Kovid, R. K. (2020). What drives FinTech adoption? A multi-method evaluation using an adapted technology acceptance model. *Management Decision*, 58(8), 1675–1697. <https://doi.org/10.1108/MD-09-2019-1318>
- Syah, T. Y. R. (2013). Perbedaan Pengaruh Citra Merek Dan Reputasi Perusahaan Terhadap Kualitas Produk, Nilai Pelanggan Dan Loyalitas Pelanggan Di Pasar Bisnis. *Jurnal Ekonomi*, 4 (2)(November), 209–226.
- Thathsarani, U. S., & Jianguo, W. (2022). Do Digital Finance and the Technology Acceptance Model Strengthen Financial Inclusion and SME Performance? *Information (Switzerland)*, 13(8). <https://doi.org/10.3390/info13080390>
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model : Four Longitudinal A Theoretical Extension of the Technology Acceptance Model : Four Longitudinal Field Studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). Unusual formations of superoxo heptaaxomolybdates from peroxo molybdates. *MIS Quarterly: Management Information Systems*.
- Venkatesh, V., Thong, J. y. ., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology by Viswanath Venkatesh, James Y.L. Thong, Xin Xu :: SSRN. *MIS Quarterly*, 36(1), 157–178. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2002388
- Yi, T. Z., Ashikin, N., Rom, M., Hassan, N., Samsurijan, M. S., & Ebekoziien, A. (2023). *The Adoption of Robo-Advisory among Millennials in the 21st Century : Trust , Usability and Knowledge Perception*.

Attachment 1: Questionnaires

Respondent Profile

Cross (X) or circle your answer

Name : ...

Domicile : Tangerang City Tangerang Regency
South Tangerang City

Gender : Male Female

Age : ... years

Education : High School D3 (Diploma) S1 (Sarjana) ...

Type of Business Owned : ...

Sales per Month : Below 25Mio 25Mio to 200Mio
Above 200Mio

Length of Business Established : ... years

FinTech Usage per Month : ... times

Type of FinTech product used (Answer can be more than 1 product)

1. Peer to Peer Lending (Pinjaman Online)
2. Mobile Banking (BCA Mobile, Livin' by Mandiri, OCTO mobile, dll)
3. Digital Wallet or Mobile Payment (OVO, GOpay, Dana, dll)
4. Aggregator (Cermati, Bareksa, Bibit, dll)
5. Equity Crowdfunding (Crowdana, FundEx, Landx, dll)
6. Other, ...

Put a CROSS (X) or TICK (✓)

Perceived Usefulness					
Perceived Usefulness is defined as a person's subjective view of the ability of a particular application, system or technology to improve its performance and influence the completion of its task or work for the future.					
	Very Disagree	Disagree	Neutral	Agree	Very Agree
By using FinTech, I can meet the needs of financial services for my business.					
With FinTech, I could save time in running my business.					
With FinTech, my business can operate more efficiently.					
FinTech can help run my business.					
Perceived Ease of Use					
Perceived Ease of Use is defined as the degree to which a person believes that using a technology will be free from effort/difficulty. The perception of ease of use is based on the extent to which potential users expect the new system to be used free from difficulties.					
	Very Disagree	Disagree	Neutral	Agree	Very Agree
The user interface of Fintech is friendly and understandable.					
User interface is a form of graphical display that is directly related to the user. The user interface serves to connect between the user and the operating system, so that the computer can be used.					
I find it easy to get FinTech services to do what my company needs to do in daily financial transactions.					
It is easy to learn how to use FinTech services.					
It is easy to have the device to use Fintech services.					
Attitudes					
Attitudes is a feeling towards a particular object that tends to be accompanied by action in accordance with the attitude towards that object which in this case is towards FinTech.					
	Very Disagree	Disagree	Neutral	Agree	Very Agree
I feel that using FinTech services for the benefit of my business is a good idea.					
I feel interested in learning more about FinTech services for the benefit of my business.					
When I hear about a new product, I look for ways to take advantage of it.					
I am confident to use fintech services to support my business.					
FinTech Adoption					
FinTech adoption is a process that leverages the availability of communication, makes financial transactions easy and secure, the ubiquitous presence of the internet, and the automation of information processing and transactions in the financial industry					
	Very Disagree	Disagree	Neutral	Agree	Very Agree
If my company has used Fintech services, I am willing to continue using them.					
I want to immediately use Fintech services in my business.					

I will recommend Fintech services to my friends.					
<p>Financial Literacy</p> <p>Financial literacy is knowledge, skills, and beliefs that affect human behaviour as a form of improving the quality of financial management & decision making so as to achieve a prosperous life.</p>					
	Very Disagree	Disagree	Neutral	Agree	Very Agree
I have a sufficient level of understanding of finances.					
I have a sufficient level of banking awareness.					
I have adequate financial management skills.					
I know the news about the financial sector in Indonesia.					
I am aware of the confidentiality aspect of FinTech.					
I know the information security aspect of FinTech.					
I follow the development of the “cashless” community around me.					

Attachment 2: Interviews (Additions)

Name : ...
Age : ... years
Education : High School D3 (Diploma) S1 (Bachelor) ...

1. Do you use FinTech services such as Mobile Banking or Digital Wallet?
2. In your opinion, is confidentiality an important aspect to be offered and provided by FinTech companies?
3. From a scale of 1 to 5, how is your knowledge or information about aspects of data confidentiality in a FinTech product?
4. In your opinion, is security an important aspect to be offered and provided by FinTech companies?
5. From a scale of 1 to 5, how is your knowledge or information about aspects of data security in a FinTech product?
If the respondent answers below 4, then:
6. In accordance with your assessment of these two aspects (confidentiality and security), why do you continue to use FinTech services even though you do not really know about these two aspects of the FinTech services that will be or are being used?
7. How do you deal with risks in transactions using FinTech services?