

FINANCIAL INCLUSION IN THE USE OF DIGITAL BANKING SERVICES IN JAKARTA

Khairina Natsir^{1*}, Agus Zainul Arifin¹, Ronald Ronald²

¹Faculty of Economics and Business, Universitas Tarumanagara, Jakarta – 11470, Indonesia

²Master Program of Management, Universitas Tarumanagara, Jakarta – 11440, Indonesia

*Email: khairinan@fe.untar.ac.id

Submitted: 21-06-2023, Revised: 23-08-2023, Accepted: 16-10-2023

ABSTRACT

Financial inclusion involves providing access to safe, convenient and affordable financial services for other disadvantaged and vulnerable groups, including low-income, rural and undocumented communities, who have been underserved or excluded from the formal financial sector. One of the services is provided by the bank to support the smooth and easy banking activities such as in transactions and other activities. This study aims to investigate and find empirical evidence about Financial Inclusion in the Use of Digital Banking Services in Jakarta. The population of this study is people who have digital banking mobile banking services who are already working and domiciled in DKI Jakarta, while the object of research is limited to Financial Knowledge, Financial Literacy, and Financial Inclusion. The sampling technique used purposive random sampling. The primary data is getting from questionnaire distributed and filled out by respondents. Data analysis was carried out using SmartPLS software, where two categories of tests were carried out, namely the outer and the inner model tests. The results show that Financial Knowledge influenced on Financial Literacy, Financial Literacy significantly influenced on Financial Inclusion, Financial Knowledge significantly influenced on Financial Inclusion, and Financial Literacy significantly enable to mediate the influence of Financial Knowledge on Financial Inclusion.

Keywords: *Financial Knowledge, Financial Literacy, Financial Inclusion, Mobile Banking, Internet Banking*

1. INTRODUCTION

The Financial Services Authority Survey (2019) shows the fact that in Indonesia the level of financial literacy and inclusion has increased from 29.7% in 2016 to 38.03% in 2019. Similarly, the level of financial inclusion in Indonesia which increased from 67.8% in 2016 to 76.19% in 2019.

The number of individual populations who are not covered by banking services or also known as the unbanked population must continue to be reduced to increase financial inclusion. Financial inclusion is one of the priorities that continues to be improved in almost all countries, including Indonesia. According to the Financial Inclusion Booklet published by Bank Indonesia in 2014, financial inclusion is the right of every individual to have and gain access to quality financial services in an efficient, easy, informative and affordable way.

The financial service system that continues to develop to improve the quality of services to be more efficient and effective is driven by the development of the internet and increasingly advanced technology. These developments are the result of innovations from product and technology developments that are integrated to increase financial inclusion.

The banking world does not escape the use of technology as a support to carry out all its activities, one of which is by utilizing internet technology which aims to develop services. The banking world is currently adopting internet technology to carry out their business

processes, such as making payments, purchases, withdrawal and deposit transactions, as well as various other transactions through the company's website which is equipped with a high security system. One of the services in internet banking is mobile banking, which is a banking service that applies information technology and is provided by the bank to support the smooth and easy banking activities such as in transactions and other activities.

The banking industry has responded to the rapid growth of digital banking by optimizing the use of digital technology by providing increasingly diverse products and services, while increasing the efficiency and competitiveness of the banking industry.

However, even though the bank continues to develop its services and encourage the public to make financial transactions, the number of unbanked population is still very large. Globally, there are 1.7 billion adults who do not have an account at any financial institution or through the most accessible mobile financial applications (Demirgüç-Kunt et al., 2018).

Based on Global Financial Index data released by the World Bank in April 2018, Indonesia is a country that has the fastest progress among Southeast Asian countries in financial inclusion. In Indonesia, the percentage of account ownership increased significantly from 13% in 2014 to 49% in 2017. Although Indonesia has experienced very rapid developments in the number of account ownership, this figure is still lower than the average overall account ownership globally which reached 69%. Indonesia occupies the fourth position as a country whose economy is the largest contributor to the unbanked population in the world with a percentage value of 6%. The first order for the country with the most unbanked population is occupied by China with a percentage of 13%, followed by India in the second position with a percentage of the unbanked population at 11%, and the third is occupied by Pakistan with the same percentage as Indonesia, namely 6% (Demirgüç-Kunt et al., 2018).

The implementation of a national survey on internet user penetration organized by the Association of Indonesian Internet Service Providers (APJII) shows that in 2018 as many as 171.17 million Indonesians were internet users, this shows that 64.8% of the total Indonesian population has used internet services. However, the percentage of people whose main reason is to use the internet to make money transfer transactions and pay bills online is only 0.2% of the total, so it can be seen that of all internet users in Indonesia, only a small percentage of them use the internet to make financial transactions.

This proves that even though technology and information through the internet can now be accessed easily, the lack of public awareness of the features and financial services provided makes the level of utilization of the internet as a medium for conducting financial transactions still low. This is due to the low level of financial inclusion. For example, someone who already has a bank account but has never been used to its full potential, is just left alone.

The ability or inability of individuals to access formal financial services voluntarily or involuntarily has been identified as the key to socio-economic development in developing countries (Mindra et al., 2017). Financial inclusion alone cannot increase economic growth, but financial inclusion contributes quotas to growth (Efobi et al., 2016)

Financial inclusion is one of the factors in poverty reduction because financial inclusion encourages people to save and make loans that help people in expediting their consumption and protect them from the number of vulnerabilities that exist in life (Munyegera &

Matsumoto, 2014). Financial inclusion opens the door for people to get credit loan funds that they cannot collect from ordinary savings (Arifin et al., 2018).

Financial literacy is an important factor that affects financial inclusion, especially among people with low incomes who lack financial knowledge and ability. So that limited financial literacy becomes an obstacle to utilizing financial services that are already available due to lack of understanding on how to use them (Arifin et al., 2018).

Financial inclusion has become a government program that is expected to increase economic growth and fight poverty. However, the public still has limited access to financial access due to the low level of financial literacy and limited public information (Arifin et al., 2018).

Lusardi (2008) says that low financial knowledge can lead to low levels of financial planning, low levels of asset accumulation and high levels of use of alternative financial services. Knowledge offers an understanding of financial concepts (Arifin, 2018). thereby preventing individuals from using non-standard financial services, such as loan sharks which tend to harm the public with uncontrolled interest.

Financial literacy supports a person's financial decision-making process by improving people's savings levels and creditworthiness and empowering them economically and socially (Natsir et al., 2020). In addition, financial literacy is useful for improving skills and knowledge about financial institutions (Arifin et al., 2018). This will later have an impact on financial inclusion because people who have the knowledge and skills will more easily access services from financial institutions.

This study wants to find answers to research problems, namely how does financial knowledge affect financial inclusion of users of digital banking services in Jakarta with financial literacy as a mediating variable.

2. THEORETICAL REVIEW

Theory of Planned Behavior

This theory is a very popular theory and is very often used as a reference and quoted by researchers to explain the decision making by a person based on his behavior. There are 3 basic components that can influence a person's decision making, namely: Attitudes toward the behavior, subjective norms regarding the behavior, and perceived control over the behavior (Sussman & Gifford, 2019).

Perceived behavioral control comes from beliefs about the extent to which people have control over the environment (Skinner, 1996). Perceived control is determined by control beliefs regarding the presence or absence of barriers to behavior which are assessed based on perceived power. In other words, individuals who want to take action but do not have the power or control actually cannot behave according to their wishes (Madden et al., 1992). If someone has a low level of control beliefs about something, then that person will have a low perception of controlling a behavior such as past experiences, or attitudes to anticipate future situations.

Based on the description above, attitude towards behavior encourages individuals to be stronger in making financial decisions based on their knowledge. Financial decisions are

positive things based on the belief that a person has sufficient knowledge to make decisions and manage finances well. Thus, financial knowledge can affect a person's financial decision making, namely financial literacy (Arifin et al., 2018). In addition, financial literacy is useful for improving skills and knowledge about financial institutions (Arifin et al., 2018). This will later have an impact on financial inclusion because people which good skills and knowledge will more easily access services from financial institutions.

Financial Inclusion

Financial inclusion is universal access, at a reasonable cost, to a wide range of financial services” of low-income and disadvantaged parties because they are excluded from formal financial services (Lyons et al., 2017). Financial inclusion is the access and use of financial products and services (Mindra et al., 2017). According to Wardhono (Wardhono et al., 2018), financial inclusion is a policy designed to eliminate barriers to limited access to the formal financial system in terms of savings, payments, credit and insurance for the unbanked population.

According to Bank Indonesia (Bank Indonesia, 2014) financial inclusion is the right of everyone to have full access and services from financial institutions in a timely, convenient, informative and affordable way, with full respect for their dignity and worth. Financial services are available to all segments of society, with special attention to the poor, the productive poor, migrant workers and residents in remote areas.

In general, financial inclusion is a condition where adults or at least 15 years old already have a savings account legally at an official financial institution. The most basic thing in financial inclusion is the existence of formal financial services that reach all elements of society, so that they can be utilized according to their needs and abilities, to improve their welfare (Indonesian Financial Services Authority, 2016). According to Indonesian Financial Services Authority (2016) there are four dimensions of financial inclusion, namely:

- a. The access dimension measures the ability to use formal financial services in terms of physical affordability and price. More specifically Otoritas Jasa Keuangan (2017) defines this dimension as the availability of infrastructure so that the community can reach both formal financial institutions, products and services.
- b. The usage dimension measures the actual use of financial products and services. This use relates to ownership of financial products such as savings accounts and loans, regularity, frequency and duration of use of financial products by the public.
- c. The quality dimension is a measure to assess whether the attributes of financial products and services have met the needs of Bank Indonesia customers. Indonesian Financial Services Authority (2016) provides a more detailed explanation that the quality dimension is a condition in which financial products and services can provide great benefits to the community by offering products that meet their expectations.
- d. The welfare dimension measures the impact of financial services on the level of life of financial service users

Financial Literacy

Financial literacy is knowledge, skills, and beliefs that influence attitudes and behavior to improve the quality of decision making and financial management in order to achieve prosperity (Kemendikbud, 2017). Financial decisions are a person's ability to use the information they have in making decisions related to the use and management of money

(Bhushan & Medury, 2014). From this definition, it can be said that financial literacy is a person's capability in making good and effective financial decisions.

Financial literacy has been recognized as important for individuals living in an increasingly complex financial environment (Potrich et al., 2016). Based on this definition, it can be said that financial literacy is something that is very necessary for everyone to have, because people who have good financial literacy knowledge and skills are able to assess information and make the right decisions in managing their money better and effectively for long-term financial security. length. Basically, financial literacy can be said as an individual's ability to process financial information to make decisions in managing finances. Remund, (Remund, 2010) argues that financial literacy can be measured using knowledge of financial concepts, the ability to communicate financial concepts, the ability to manage personal finances, the ability to make the right financial decisions, and the confidence to plan for financial needs.

From a survey conducted by the Financial Services Authority (OJK, 2013), there are four levels of financial literacy in Indonesian society, namely:

- a. Well literate (21.84%), namely a group of people who have high knowledge and have confidence in the services of financial institutions and their products, including features, risks and benefits, as well as obligations and rights related to related products, and are very familiar with use of these financial products and services.
- b. Adequate literacy (75.69%), is the level of knowledge and public confidence in financial institutions and their service products, such as risks, benefits and features, risks, as well as all obligations and rights related to the use of these financial services and products.
- c. Low literacy (2.06%), i.e if you only know about financial products and services and financial service institutions.
- d. No Literacy (0.41%). This category has no trust and knowledge at all about financial institutions and services, and stutters in interacting with financial products and services.

Based on understanding presented before, it can be said that financial literacy is a person's ability to make his own decisions by combining several skills, contextual knowledge, information processing and resources to analyze a financial risk and determine his decision. In determining financial decisions, an individual needs information insight, one of which is with various types of financial knowledge. Someone who has good knowledge about finance will certainly influence his financial decisions in the future. Lusardi (2008) explained that financial literacy covers 5 (five) financial constructs, namely:

- a. Basic Personal Finance Knowledge. Basic Knowledge of Personal Finance. This concept includes basic financial insights such as an understanding of inflation, working capital, interest rate calculations, etc.
- b. Understand the science of Money Management. This idea includes a person's ability to analyze and manage his or her own finances. Adequate knowledge of financial literacy has an impact on how to implement good finance for their daily needs. In this case, each individual is able to compile a budget and prioritize the use of money that is right on target so that the financial decisions taken are right and good.
- c. Knowledge of Credit and Debt (Credit and Debt Management). Credit and debt management is the concept of a debt payment process that involves third parties to help debt borrowers. This knowledge explains that a person can take advantage of credit facilities and short-term debt as a solution when experiencing a shortage of funds due to needs that occur.
- d. Knowledge of Saving and Investment (Saving and Investment). Savings are part of the income that a person saves, usually in the short term, and is not used for consumption

- purposes, while investment is all kinds of business that a person does, either in the form of goods or services with the aim of increasing the value of his assets.
- e. Knowledge of Risk (Risk Management). In general, a person will experience unavoidable life risks, for example experiencing an accident, illness, death, research or responsibility that must be borne as a result of negligence (liability risk), risk of fire, loss or damage to assets owned (asset risk). The way someone manages these risks will affect their financial security in the future.

Financial Knowledge

Financial knowledge can be defined as a person's knowledge of some basic financial terms and concepts needed for daily activities within the community (Atkinson & Messy, 2012). Financial knowledge refers to an understanding of financial concepts, such as financial budgeting and savings (Chowa et al., 2012).

Financial knowledge is a guide for someone in treating their money well. Someone with better financial knowledge will automatically use and manage their money for investment and long-term needs. On the other hand, a person with less financial knowledge is more likely to squander his money.

Someone who has good knowledge about finance will certainly affect his financial decisions in the future, such as budgeting, saving or paying bills on time (Aydin & Akben Selcuk, 2019). Financial knowledge can be measured using knowledge about money management, credit, and saving (Hogarth & Hilgert, 2002).

From Bhushan & Medury's research it was found that financial knowledge has a significant relationship to financial literacy (Bhushan & Medury, 2014). Chen & Volpe found that someone who has less knowledge about financial matters tends to make wrong decisions in financial matters (Chen & Volpe, 1998). According to Nurkhin & Setiawati, financial knowledge can explain financial literacy where someone who has financial knowledge and can use it in everyday life, such as investing in general, is very familiar with types of high-risk financial instruments with all their advantages and disadvantages. They will also understand better how to analyze and manage their finances in order to use their money in the best possible way (Nurkhin & Setiawati, 2017).

Research Framework and Hypothesis

If one's knowledge of finances is getting better, the higher one's awareness of doing budgeting, saving, and paying bills on time. The higher the financial knowledge, the wiser a person will be in managing his daily finances. Individuals who have the right mindset about the importance of finances for the future can trigger the behavior of these individuals to start making financial plans, then always make financial budgets, record finances, so they can make decisions in financial matters.

Those who believe that money is a symbol of power and pride will be more likely to make uncontrolled and addictive purchases (Roberts & Jones, 2001), tend to want to have as many credit cards as possible (Hayhoe et al., 1999), and often make high-risk financial decisions (Shih & Ke, 2014). Xu & Zia (2012) argue that in developing countries, Knowledge built through financial literacy programs can increase one's financial awareness, such as increasing savings opening and participation in insurance. Financial literacy can encourage people's

awareness of the importance of the existence of financial products and services available to them (Fan et al., 2017). Good financial knowledge will influence decision making regarding financial products, which in turn improves people's savings rates and creditworthiness (Kefela, 2010). In addition, increasing knowledge about financial institutions will have an impact on financial inclusion because people who have knowledge will more easily access services from financial institutions (Atkinson & Messy, 2012).

Based on the research framework described above, the research design is formulated as follows:

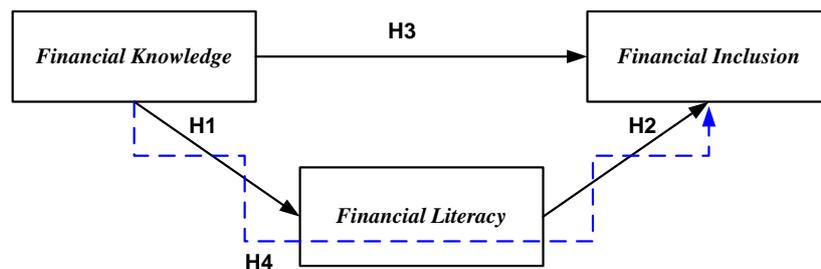


Figure 1. Research Model

Based on the theories that have been described above, and supported by the findings of the research that has been done, the hypothesis in the study is formulated as follows:

H1 : Financial Knowledge influenced positively on Financial Literacy.

H2 : Financial Literacy influenced positively on Financial Inclusion.

H3 : Financial Knowledge influenced positively on Financial Inclusion.

H4 : Financial Literacy can mediate the influence of Financial Knowledge on Financial Inclusion.

3. RESEARCH METHOD

This research belongs to the type of descriptive quantitative research, which is the research conducted to capture phenomena that have occurred in the past or in the present (Sukmadinata, 2009). In the use of this quantitative method, it aims to be able to measure each variable used into numbers to be described in the conclusion. This research period starts from January 2021 to June 2021.

Primary data in this study is a collection of respondents' answers from questionnaire which contains a series of questions that are in accordance with the indicator variables to be studied. In this case, the researcher directly provides questionnaires that are distributed to each respondent to be studied who is a party using digital mobile banking banking services who are already working and domiciled in DKI Jakarta. The answers in the questionnaire there are no right or wrong answers, because the answers are in the form of responses from respondents to the statements submitted. Responses from respondents then scored into Likert Scale method ranging from 1-10, whereas 10 indicates strongly agree and 1 indicates strongly disagree.

The population in this study are those who use mobile banking services who are already working and domiciled in DKI Jakarta. The criteria for the sample in this study are, among

others Parties who use mobile banking digital banking services, and those who are already working and domiciled in DKI Jakarta. The number of samples used by the researchers in this study were 486 respondents who met the criteria, which were users of digital banking mobile banking services who were already working and domiciled in DKI Jakarta.

This study used dependent variables, independent variables, and mediating variables. The dependent variable is financial inclusion (FI). The independent variable is financial knowledge (FK), and the mediation variable is financial literacy (FL). All variables measured using a Likert scale (Strongly disagree to Strongly agree). Referring to the definition of (Kemendikbud, 2017), Financial Inclusion (FI) is measured by the Access, Usage, Quality, Welfare construct which is presented in 15 statements (FI1-FI15). Financial Literacy (FL) was measured using 15 indicators (FL1-FL12) which were compiled based on Rooij et al. (Van Rooij et al., 2007) and Remund (Remund, 2010). While Financial Knowledge (FK) was measured using 11 indicators (FK1-FK11) based on (Atkinson & Messy, 2012) and (Hogarth & Hilgert, 2002).

The analytical method in this study uses the Partial Least Squares (PLS) application program which is a data analysis method that eliminates the assumptions of Ordinary Least Square (OLS) regression which says that the data must be normally distributed in a multivariate manner and there is no problem of multicollinearity between variables (Ghozali & Latan, 2015). The consideration in choosing SmartPLS is because of its ability to analyze latent variables. The outer model test is carried out to assess the reliability and validity of the data, while the inner model test is intended to test the hypothesis, the Coefficient of Determination, and the Goodness of Fit Test.

4. RESULTS AND DISCUSSION

Testing Outer Model

An outer test was conducted to test the validity as well as the reliability. The validity test used is convergent validity and Fornell-larcker criteria. Reliability tests used were composite reliability and Cronbach's alpha.

Validity Test Results using Convergent Validity

The validity of the instrument on PLS was carried out using convergent validity. Loading Factor is a loading value that is useful to determine whether the indicators in the questionnaire data are valid or not. The standard of factor loading measurement is that the loading value > 0.6 (Ghozali, 2016). The following is the test output of the outer loading,

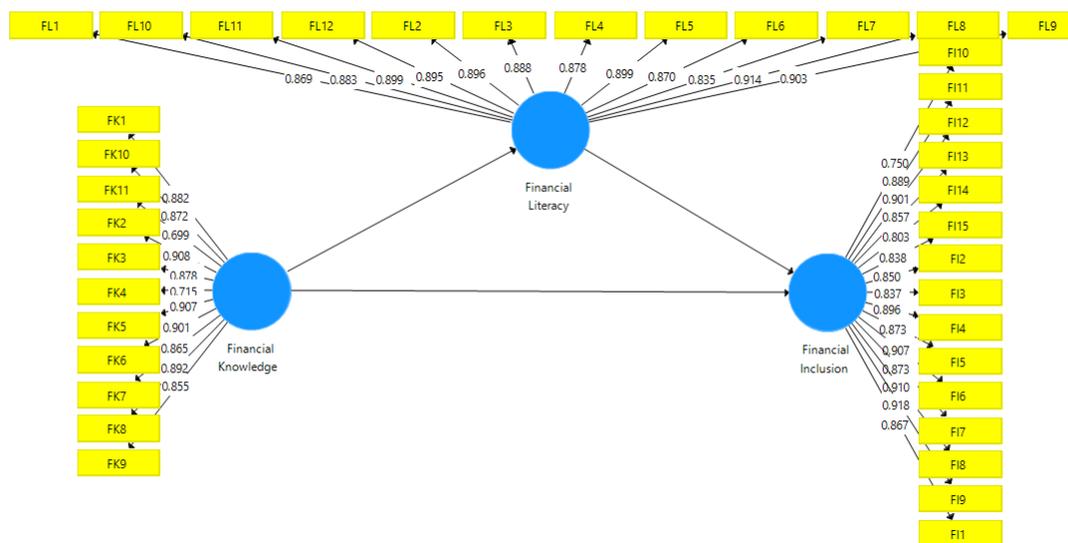


Figure 2. Outer Loading Output

Based on value of the outer loading, it can be explained that the results of the validity test for all indicators are declared valid. The variables of financial knowledge, financial literacy, and financial inclusion have values bigger than 0.6, meaning that all indicators are declared to meet the requirements of the validity test.

Validity Test using Fornell-Larcker Criterion

Average Variance Extracted (AVE) is used to measure the internal intercorrelation, namely the correlation between indicators in the model. The standard for the AVE measurement is the coefficient value > 0.5. The following is the AVE value in Table 1.

Table 1. Fornell-larcker” Criteria Test Results

Variable	Average Variance Extracted (AVE)	Description
Financial Knowledge	0.731	Valid
Financial Literacy	0.785	Valid
Financial Inclusion	0.749	Valid

Source: Calculated by the Authors

Table 1. shows that financial knowledge, financial literacy, and financial inclusion have AVE values of 0.731, 0.785, and 0.749, respectively, which means that all of the variables above have met the feasibility of the evaluation since they have a coefficient value of AVE greater then 0.5.

Reliability Test Results

Reliability testing in this study was carried out by observing the Composite Reliability value, which is an indicator block that measures a construct. The following is the value of Composite Reliability in table.

Table 2. Composite Reliability Result

Variable	Composite Reliability	Description
Financial Knowledge	0.967	Reliable
Financial Literacy	0.978	Reliable
Financial Inclusion	0.978	Reliable

Source: Calculated by the Authors

From the result in Table 2, it can be explained that financial knowledge, financial literacy, and financial inclusion each have a value of 0.967, 0.978, and 0.978, which means that the coefficient value has a high level of reliability because the value is > 0.8.

Testing Inner Model

R-Square Test Results

The results of testing the coefficient of determination on financial inclusion obtained an R square value of 0.788, while the results of the R Square test on financial literacy resulted in an R square value of 0.826. The results of this test can be explained that the financial inclusion variable can be explained by the financial knowledge and financial literacy variables, which are 78.8%. This means that every change that occurs in financial knowledge and financial literacy, financial inclusion will also experience a change of 78.8%. Furthermore, financial literacy can be explained by the financial knowledge variable, which is 82.6%. So, it can be interpreted that every change that occurs in financial knowledge, financial literacy will also experience a change of 82.6%.

The Results of f-Square Test

The value of f-Square measures the impact of certain predictor constructs on endogenous constructs. This effect measurement is intended to evaluate whether the predictor construct if omitted will have a large impact on the R-Square values of the endogenous constructs. The f square value is 0.02 for a small effect size, 0.15 for a medium effect size and 0.35 for a large effect size. The following is the value of f-square in Table 3.

Table 3. The f-Square Result

Variable	f-Square
Financial Knowledge -> Financial Literacy	4.732
Financial Literacy -> Financial Inclusion	0.249
Financial Knowledge -> Financial Inclusion	0.106

Source: Calculated by the Authors

Based on Table 3. it can be concluded that the results of the effect test are as follows:

1. Financial Knowledge has a big impact on the value on R Square of variable financial literacy that is equal to 4.732.
2. Financial Literacy has a moderate impact on the value of R Square of the financial inclusion variable, which is 0.249.

3. Financial Knowledge has a weak impact on the value of R Square of financial inclusion variable, which is 0.106.

Q-Square Test Results

The Q-Square value is generated through a blindfolding procedure. The blindfolding procedure is only applied to the affected variables and uses a reflective measurement model. The results of the Q Square test on the Financial Inclusion variable are 0.582, while the Q-Square test results on Financial Literacy are 0.641. The results show the Q-Square value of financial literacy and financial inclusion variables > 0 which means that the model has a predictive relevance value. The result above illustrates that the financial knowledge variable has a greater influence on financial literacy with a Q-Square value of 0.641 than the effect on financial inclusion, which is 0.582.

Goodness of Fit (GoF) Test Results

Goodness of Fit (GoF) testing is carried out in a study aimed at determining the level of suitability and feasibility of a research model. The following is the AVE value in Table 4 below.

Table 4. AVE dan R-Square Result

Variable	Average Variance Extracted (AVE)	R Square
Financial Knowledge	0.731	
Financial Literacy	0.785	0.788
Financial Inclusion	0.749	0.826
Average	0.755	0.807

Source: Calculated by the Authors

Table 4. shows the average value of AVE is 0.755 and the average value of R Square is 0.807. GoF is calculated using the $\sqrt{AVE \times R^2}$ formula, in order to obtain a GoF of 0.701. The GoF value is divided into three categories, namely 0.1 means small, 0.25 means medium, and 0.38 means large. The GoF value in this study is 0.701, which means that the level of suitability and feasibility of this research model is stated to be large.

Hypothesis Test Results (Path Coefficient)

To test the hypothesis with smartPLS, you can look at the t-statistic or P-value contained in each variable to see the effect and level of significance. The t-statistic limit of more than 1.96 or P-value of less than 0.05 leads to the conclusion that the independent variable significantly affects the dependent variable. The following Table is a result of t-statistics and p-value.

Table 5. Hypothesis Testing Result

Variable	t-Statistics	p-Values
Financial Knowledge -> Financial Inclusion	5.024	0.000
Financial Knowledge -> Financial Literacy	64.712	0.000
Financial Literacy -> Financial Inclusion	7.788	0.000
Financial Knowledge -> Financial Literacy -> Financial Inclusion	7.645	0.000

The statistical results in Table 5. can be explained as below:

H1: Financial Knowledge has an influence on Financial Literacy.

Based on the results of tests that have been carried out on the financial knowledge variable on financial literacy, the results of the t-statistics value are 64.712 (> 1.96) and the p-value is 0.000 (< 0.05). From these results, H1 is not rejected. In other words, the financial knowledge variable has a significant influence on the financial literacy of individuals who use digital banking services for mobile banking in DKI Jakarta.

H2: Financial Literacy has an influence on Financial Inclusion.

Based on the test results on the financial literacy variable on financial inclusion, the results of the t-statistics value are 7.788 (> 1.96) and the p-value is 0.000 (< 0.05), then H2 is not rejected. It means that the financial literacy variable has a significant influence on financial inclusion of individuals who use digital banking services for mobile banking in DKI Jakarta.

H3: Financial Knowledge has an influence on Financial Inclusion.

Based on the results of the tests that have been carried out on the financial knowledge variable on financial inclusion, the results of the t-statistics value are 5.024 (> 1.96) and the p-value 0.000 (< 0.05), then H3 is not rejected. This means that the financial knowledge variable has a significant influence on financial inclusion for individuals who use digital banking services for mobile banking in DKI Jakarta.

H4: Financial Literacy can mediate the influence of Financial Knowledge on Financial Inclusion.

Based on the results of testing the financial knowledge variable on financial inclusion through financial literacy as a mediation, it has a t-statistics value of 7.645 (> 1.96) and p-value of 0.000 (< 0.05), then H4 is not rejected. Therefore, it means that the financial literacy variable can mediate financial knowledge on financial inclusion for individuals who use digital banking mobile banking services in DKI Jakarta. In addition, it can also be explained that the mediating variable in this study is part mediation because the independent variable can affect the dependent variable directly without going through the mediating variable.

Discussion

The results of the evaluation of the outer model, from the validity test, resulted in all indicators of questions from variables with a total of 38 questions having valid results. Likewise, from reliability testing, all variables are declared reliable with a high level because their values are above 0.7. The evaluation of the inner model tests the R-Square with the results that financial knowledge and financial literacy have a strong influence on financial inclusion. The results of the f-square test show that financial knowledge on financial literacy, financial knowledge on financial inclusion, and financial literacy on financial inclusion has an impact on the R-Square. The results of the Q-Square test using blindfolding explain that the financial knowledge variable has a greater influence on financial literacy than the influence on financial inclusion.

The results of hypothesis testing (path coefficient) using the bootstrapping method can be explained as follows.

a. Financial Knowledge has an influence on Financial Literacy.

Based on the results of the tests that have been carried out, it means that the financial knowledge variable has a significant influence on financial literacy for individual users of digital banking mobile banking services in DKI Jakarta. The results of this study are in

line with the research of (Nurkhin & Setiawati, 2017). An individual who has financial information will apply and use it in everyday life. The individual will know better how to manage finances, use money, and make investments as well as possible. Judging from the FK1 indicator on the financial knowledge variable, this indicator has a fairly high number of contributions. The FK1 indicator in the form of an investment statement with high returns has a high risk of loss, so it proves that the need for financial knowledge to determine financial decisions so as to minimize risk, influence individuals to be more literate in knowledge about financial management. The decision of individuals who know the benefits and advantages of using mobile banking will tend to choose to use mobile banking because it will make it easier for the individual to do financial management, save, and make credit when needed.

b. Financial Literacy has an influence on Financial Inclusion.

Based on the results of the tests that have been carried out, it means that the financial literacy variable has a significant influence on financial inclusion on individual users of digital banking mobile banking services in DKI Jakarta. The results of this study are in line with the research of Bire et al. (2019) which shows that financial literacy has a direct and significant effect on financial inclusion. Research by (Hasan et al., 2021) examines the importance of building appropriate products and services to promote financial inclusion in rural areas by organizing financial education and inspiring rural consumers to engage in financial services. Xu & Zia (2012) argue that in developing countries, knowledge built through financial literacy programs can increase the uptake of products such as savings accounts and insurance. Financial literacy leads to a large and significant increase in individual awareness of the financial products and services available to them (Fan et al., 2017).

c. Financial Knowledge has an influence on Financial Inclusion.

Based on the results of the tests that have been carried out, it shows that the financial knowledge variable has a significant influence on financial inclusion of individual users of digital banking services in DKI Jakarta. The results of this study are in line with the research of Bongomin et al. (Okello Candiya Bongomin et al., 2018) which found that financial knowledge has a positive relationship to financial inclusion. Financial knowledge is used to measure individual judgments about finances related to personal financial management, setting financial goals, financial planning, bank accounts, bank products or services and others (Tustin, 2010). Then Lusardi (Lusardi, 2008) said that low financial knowledge can lead to lower levels of financial planning and higher levels of use of alternative financial services. Good financial knowledge will influence decision-making regarding financial products, which in turn improves people's savings rates and creditworthiness (Justyn & Marheni, 2021). In addition, increasing knowledge about financial institutions will have an impact on financial inclusion because people who have knowledge will more easily access services from financial institutions (Atkinson & Messy, 2012).

d. Financial Literacy can mediate the influence of Financial Knowledge on Financial Inclusion

Financial literacy can mediate financial knowledge on financial inclusion for individuals who use digital banking services for mobile banking in DKI Jakarta. This is because someone with good financial knowledge will certainly have better financial literacy and inclusion, this is evidenced from H1 and H3 which are not rejected so that financial literacy can mediate the relationship between financial knowledge and financial inclusion.

5. CONCLUSIONS

The results show that Financial Knowledge has an influence on Financial Literacy, Financial Literacy has an influence on Financial Inclusion, Financial Knowledge has an influence on Financial Inclusion, and Financial Literacy can mediate the influence on Financial Knowledge on Financial Inclusion.

The empirical findings of this study also provide valuable recommendations for policy makers to improve financial inclusion in the context of developing countries. Comprehensive and long-term education programs must be introduced on an ongoing basis to the community to make major strides in financial inclusion, a key driver in reducing poverty and increasing welfare.

REFERENCES

- Arifin, A. (2018). Influence factors toward financial satisfaction with financial behavior as intervening variable on Jakarta area workforce. *European Research Studies Journal*, 21(1).
- Arifin, A. Z., Kuarniullah, A. Z., & Setini, M. (2018). *Financial Investment , Behavioral Theory Approach in Investor Perspective in Indonesia*. 367, 1–19.
- Atkinson, A., & F.Messy. (2012). *Measuring Financial Literacy : Results of The OECD / International Network of Financial Education (INFE) Pilot Study: OECD Working Papers on Finance*.
- Atkinson, Adele, & Messy, F.-A. (2012). Measuring Financial Literacy: Results of the Oecd Infe Pilot Study. *Oecd*, 15, 1–73. <https://doi.org/https://doi.org/10.1787/bb2cd70c-en>
- Aydin, A. E., & Akben Selcuk, E. (2019). An investigation of financial literacy, money ethics and time preferences among college students: A structural equation model. *International Journal of Bank Marketing*, 37(3), 880–900. <https://doi.org/10.1108/IJBM-05-2018-0120>
- Bank Indonesia. (2014). Inclusive Finance Booklet. *Survey Report*, 7(2), 1–16.
- Bhushan, P., & Medury, Y. (2014). An Empirical Analysis of Inter Linkages Between Financial Attitudes, Financial Behaviour and Financial Knowledge of Salaried Individuals. *Indian Journal of Commerce & Management Studies*, 5(3), 1161–1201.
- Bire, A. R., Sauw, H. M., & Maria, -. (2019). The effect of financial literacy towards financial inclusion through financial training. *International Journal of Social Sciences and Humanities*, 3(1), 186–192. <https://doi.org/10.29332/ijssh.v3n1.280>
- Chen, H., & Volpe, P. (1998). An Analysis of Personal Financial Literacy Among College Students. *FINANCIAL SERVICES REVIEW*, 7(2): 107-128. <https://doi.org/10.3788/CJL201643.0811001>
- Chowa, G. A. N., Despard, M., & Osei-Akoto, I. (2012). Financial knowledge and attitudes of youth in Ghana YouthSave Research Brief 12-37. St. Louis, MO: Washington University. *Center for Social Development*, October 2017.

- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017. Measuring Financial Inclusion and the Fintech Revolution. In *REWAS'04 - Global Symposium on Recycling, Waste Treatment and Clean Technology*.
- Efobi, U., Asongu, S. A., & Beecroft, I. (2016). Exploring Multidimensional Financial Inclusion and Manufacturing Firms Performance in a Developing Country: The Case of Nigeria. *SSRN Electronic Journal*, September 2017. <https://doi.org/10.2139/ssrn.2868227>
- Fan, Z., Brooks, D. J., Okello, A., & Edison, P. (2017). An early and late peak in microglial activation in Alzheimer's disease trajectory. *Brain*, 140(3), 792–803. <https://doi.org/10.1093/brain/aww349>
- Ghozali, I., & Latan., H. (2015). *Partial Least Squares Concepts, Techniques, and Applications Using the SmartPLS 3.0.ed 2*. Universitas Diponegoro.
- Ghozali, Imam. (2016). *Multivariate Analysis Application with IBM SPSS 23*. BPFE Universitas Diponegoro.
- Hasan, M., Le, T., & Hoque, A. (2021). How Does Financial Literacy Impact on Inclusive Finance ? *Financial Innovation*, 7(40). <https://doi.org/10.1186/s40854-021-00259-9>
- Hogarth, J. M., & Hilgert, M. A. (2002). Financial literacy and family and consumer sciences. *Journal of Family and Consumer Sciences*, 48, 1–7.
- Indonesian Financial Services Authority. (2016). Financial Services Authority: Financial Literacy And Inclusion Index Increases. *OJK*, 1–6.
- Justyn, F., & Marheni, D. K. (2021). Pengaruh Financial Attitude, Financial Education, Financial Knowledge, Financial Experience, dan Financial Behavior terhadap Financial Literacy pada Pelajar Kota Batam. *JGBMR*, 21–32.
- Kefela, G. T. (2010). Promoting Access to Finance by Empowering Consumers -Financial Literacy in Developing Countries. *Educational Research and Reviews*, 5(5), 205–212.
- Kemendikbud, T. G. (2017). Financial Literacy Supporting Materials. *Gerakan Literasi Nasional*, 1–41. <http://gln.kemdikbud.go.id/glnsite/buku-literasi-finansial/>
- Lusardi, A. (2008). Household Saving Behavior : The Role of Financial Literacy , Information , and Financial Education Programs (Dartmouth College and NBER) February 2008. *Implications of Behavioral Economics for Economic Policy*”, 1, 1–43.
- Lyons, A. C., Grable, J. E., & Zeng, T. (2017). Infrastructure, Urbanization, and the Financial Inclusion of Chinese Households. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3012453>
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin*, 18(1), 3–9. <https://doi.org/10.1177/0146167292181001>

- Mindra, R., Moya, M., Zuze, L. T., & Kodongo, O. (2017). Financial self-efficacy: a determinant of financial inclusion. *International Journal of Bank Marketing*, 35(3), 338–353. <https://doi.org/10.1108/IJBM-05-2016-0065>
- Munyegera, G. K., & Matsumoto, T. (2014). Mobile Money , Remittances and Rural Household Welfare : Panel Evidence from Uganda Ggombe Kasim Munyegera Tomoya Matsumoto 【 Emerging State Project 】 Mobile Money , Remittances and Rural Household Welfare : Panel Evidence. *Pacific Conference for Development Economics, Center for Effective Global Action, December*, 1–40.
- Natsir, K., Setini, M., & Arifin, A. Z. (2020). The Influence of Income and Financial Literacy on Financial Satisfaction through Financial Behavior as a Mediating Variable. In *Urban Development and Lifestyle*. Nova Science Publishers Inc, New York. <https://nova-publishers.com/shop/urban-development-and-lifestyle/>
- Nurkhin, A., & Setiawati. (2017). Testing the Dimensions of Student Financial Literacy Construction. *Economic Education Analysis Journal*, 6(3), 727–736.
- Okello Candiya Bongomin, G., Ntayi, J. M., Munene, J. C., & Malinga, C. A. (2018). Mobile Money and Financial Inclusion in Sub-Saharan Africa: the Moderating Role of Social Networks. *Journal of African Business*, 19(3), 361–384. <https://doi.org/10.1080/15228916.2017.1416214>
- Otoritas Jasa Keuangan. (2017). Indonesian Financial Literacy National Strategy (Revised 2017). *Otoritas Jasa Keuangan*, 1–99.
- Potrich, A., Vieira, K., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. *Management Research Review*, 39(3). <https://doi.org/10.1108/MRR-06-2014-0143>
- Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276–295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- Skinner, E. A. (1996). A Guide to Constructs of Control. *Journal of Personality and Social Psychology*, 71(3), 549–570. <https://doi.org/10.1037/0022-3514.71.3.549>
- Sussman, R., & Gifford, R. (2019). Causality in the Theory of Planned Behavior. *Personality and Social Psychology Bulletin*, 45(6), 920–933. <https://doi.org/10.1177/0146167218801363>
- Tustin, D. H. (2010). An impact assessment of a prototype financial literacy flagship programme in a rural South African setting. *African Journal of Business Management*, 4(9), 1894–1902.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2007). Financial Literacy and Stock Market Participation. In *NBER Working Paper Series* (NBER Working Paper Series, Vol. 13565). <http://www.nber.org/papers/w13565>

- Wardhono, A., Indrawati, Y., & Qori'ah, C. G. (2018). *Financial Inclusion at the Crossroads of Social Cohesion and Sustainable Economic Development*. Pustaka Abadi, Jember.
- Xu, L., & Zia, B. (2012). Financial literacy Around the World An Overview of the Evidence with Practical Suggestions for the Way Forward. In *Policy Research Working Paper 6107* (Issue June).