DIGITAL CUSTOMER PROTECTION: MEDIATOR BETWEEN MOBILE MONEY USAGE AND FINANCIAL INCLUSION

Elizabeth Fiesta Clara Shinta Budiyono
Universitas Atma Jaya Yogyakarta, Indonesia
Email: elizabeth.clara@uajy.ac.id (Corresponding Author)

Sukmawati Sukamulja
Universitas Atma Jaya Yogyakarta, Indonesia
Email: sukmawati.sukamulya@uajy.ac.id

Abstract

The development of technology in the 5.0 era, marked by the increase in internet usage, currently impacts people's habits in accessing financial services, such as mobile money usage. Therefore, it aligns with the government's vision to increase financial inclusion through mobile money usage to reduce poverty. However, Yogyakarta Province is a province with a poverty rate that exceeds the national average, and it is the highest in the Java region. In this regard, digital customer protection needs to be considered because mobile money usage carries a high risk to the security and privacy of user data. Therefore, this study aims to determine the role of digital customer protection in mediating mobile money usage and financial inclusion in productive age communities in Yogyakarta. This study applies the Sobel test by Baron and Kenny and the process method by Hayes. The result of this study shows that digital customer protection significantly mediates mobile money usage towards financial inclusion partially in productive age communities in Yogyakarta Province. With these results, it is expected that all parties should work together to increase mobile money usage to reduce poverty and help the government to achieve the welfare of the community.

Keywords: Digital Customer Protection; Mobile Money Usage; Financial Inclusion; Productive Age

JEL Classification: [D14, D18, G11, G38, G41, I31, O14]

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INTRODUCTION

The advancement of technology and information is undeniably entering a new era, with the 5.0 industrial revolution bringing improvements to every element of human life. Indonesia, one of the nations with the most significant population ranking, namely 277.7 million in 2022, has 204.7 million active internet users and 370.1 million connected mobile devices, which indicates that Indonesian have more than one mobile device (WASK, 2022). The productive age group is one civilization that is already adept at exploiting the sophistication of communication technology equipment since they are today's most significant internet users. Erlianta et al. (2021) said that people at a productive age understand technology usage better and access financial technology faster.

Now, people's lifestyles are transforming towards a digital society, with one example being the digitization of financial transaction procedures using mobile money such as e-money. One proof of this advancement is the emergence of digital economic progress to address social issues, i.e., poverty.

Businesses are beginning to capitalize on opportunities from using mobile services in financial transactions to give the best service to consumers. According to Singh & Malik (2019) information, communication, and technology (ICT) are crucial components in increasing effective and efficient digital services. For example, banks typically offer digital financial services in mobile banking, debit or credit cards, and so on (Glavee-Geo et al., 2017). Meanwhile, non-banking institutions typically issue mobile money and e-wallets (Chauhan, 2015). Pratiwi & Krisnawati (2021) said mobile money is strongly tied to e-money. They said that mobile money is electronic money that used smartphones to access it. Sasongko et al. (2021) said that the adoption on mobile money in Indonesia is growing rapidly followed by rapid growth in these service providers. Mobile money has grown significantly, as seen by the entry of financial firms and third parties into the mobile money service market (Fall et al., 2021). In this regard, the current state of mobile money usage suggests an enormous growth in the use of digital products. Furthermore, mobile money usage can support a cash less society movement, which indicates that a country has an infrastructure that allows the connection of all payments for public services such as transportation, household needs, and others (Azali, 2016; Humbani, 2018; Raj, 2015; Shukla, 2017)

Behind the benefits of digital financial services ease of use lies some risks including cyber-security hazards, customer privacy protection, fraud, money laundering, and other issues. Customer protection is a crucial component of digital transformation (FSA, 2020). Customer security must be guaranteed using digital financial services such as mobile money. Service providers, regulators, and the government must be concerned about cybercrime security, ease of access, transparency, and other issues. An inefficient and weak security system used by financial service providers, such as mobile money, would have a detrimental impact on customers, particularly regarding usage, accessibility, and quality (Ajide, 2015; Kanobe et al., 2017; Krishan Sharma et al., 2014).

According to Bongomin & Ntayi (2020b), digital customer protection influences customer trust and sense of security in utilizing digital financial services such as mobile money. Furthermore, the customer protection framework for digital financial services is critical for increasing user confidence (Malady & Law, 2016). Financial Consumer Protection Strategy 2013-2017 by FSA (2017) explains that the rise of fintech and digital economic innovation generated weaknesses, specifically cyber security, so the FSA Regulation Number 13/POJK.02/ 2018 about Concerning Digital Financial Innovation in the Financial Services Sector (2018) was issued by FSA. The government has also backed this up by issuing Regulation No 20 of 2016 about Protection of Personal Data in Electronic System. With this regulation, it is hoped to increase mobile money usage use and can impact community activities in accessing financial services.

Financial inclusion is a state where individuals no longer have restricted access to existing financial services (Bhuvana & Vasantha, 2016; Kaur & Kapuria, 2020; Sharma et al., 2013). Babajide et al (2015) found that financial inclusion is an important driving factor for improvement of economic growth. Sustainable Growth Goals (SDGs) state that financial inclusion plays a role in boosting a country's development by eliminating poverty (Peruta, 2018). Apart from being a means of relieving poverty, Ibrahim et al (2019)

highlighted that as financial inclusion rises, so it will help government to eliminate the income disparity. The same findings of Huang & Zhang (2020) also found that financial inclusion is good for overcoming income inequality since it contributes to financial stability. Other findings explain that financial inclusion rates in 10 Asian countries are not optimal, one of which is Indonesia (Ratnawati, 2020). According to Erlando et al (2020) explain that financial inclusion has a positive effect on inequality that exist in Indonesia, especially in Eastern Indonesia. Financial inclusion would be used to reduce social inequality and poverty among the poor in Indonesia.

CSAYP (2021) explain that the poverty rate in the Special Region of Yogyakarta is higher than the national average and the highest in Java Region. The following data show the poverty rate in comparison to national estimates from 2015 to 2019 can be describe in Figure 1.

According to Figure 1, the poverty rate in the Special Region of Yogyakarta continues to fall yearly. However, it is still above the national's average poverty rate, being 11.70% or 2.29% greater in 2019 than the national poverty rate. According to data from the Regional Development Planning, Research, and Development Agency, the Special Region of Yogyakarta Gini index value in 2021 is 0.411, with urban regions having the highest score. Yogyakarta has the highest inequality value and is the focus of the Special Region of Yogyakarta inequality resolution (RPSRY, 2022). Data from CSAYP (2021) show that the absolute number of poor people in the Special Region of Yogyakarta is in urban areas, with 304.66 thousand persons in 2019; in rural regions, the figure is 143.81 thousand people.

Roitman (2019) found that communities in Yogyakarta face three obstacles to reduce poverty, one of them is lack of financial resources. If communities get their financial resource from government programs for example BLT program, communities cannot manage their financial resource (Budiyono & Krisnawati, 2021). The Special Region of Yogyakarta government's policy for poverty alleviation is primarily concerned with enhancing productivity and raising economic activities by reducing unemployment and maximizing government programs for example distributing Direct Cash Program, Community Health Program and Rice Subsidies Program (Andryanda et al., 2022). The government has not maximized financial inclusion by using the right financial products, even though mobile money may be used to relieve poverty because of its lower costs and efficiency (Hasibul et al., 2019).

Mobile money usage does not directly affect the level of financial inclusion in the community but rather through intermediary variables, for example, trust variables (Bongomin & Ntayi, 2020a). Trust alone is not enough. Regulations regarding data privacy are needed and the effectiveness of telephone networks to bridge the gap between participants who use mobile money and those who are not. Laws related to the financial sector should be able to bridge the use of mobile money usage and financial inclusion (Bongomin & Ntayi, 2020a). This is also consistent with suggestions from Budiyono & Krisnawati (2021), which explain that besides trust as a mediator variable for the use of mobile money and financial inclusion, regulation such as digital consumer protection can be used as a mediator in this research. In Indonesia, more research on mobile money and digital customer protection still need to be done. This study provides valuable insights into the role of digital mediation for customer protection, which is critical as a cushion for promoting financial inclusion, considering that fintech recently poses enormous risks and threats from fraud in cyberspace. What differs from Bongomin & Ntayi (2020b) is that the research focus was previously on MSME actors. This study uses digital consumer protection as a mediating variable and

focuses on the productive age population in a province.

Drawing from the arguments that explain that mobile money usage will significantly impact financial services providing lower prices, higher comfort, and more safety, however, judging from the phenomenon, fraud is rampant through this financial platform. Thus, this study aims to establish the mediation effect of digital customer protection in the relationship between mobile money usage and financial inclusion with data collected from productive-age people in Yogyakarta. As a result, it is envisaged that the adoption of mobile money would impact financial inclusion, directly or indirectly, with digital customer protection acting as a mediator. The formulation of the major challenge in this research is how the function of digital customer protection can mediate the usage of mobile money and financial inclusion in the productive age community in the Special Region of Yogyakarta.

LITERATURE REVIEW
Financial Behavior

Financial behavior is a behavior as individuals to carry out activities related to their finances (Grohmann, 2018; Stolper & Walter, 2017; Zakaria et al., 2012). According to Dew & Xiao (2013) it is explained that financial behavior includes several things, including how individual makes decisions on spending on goods and services, how a person's consumption activity, how a person manage their cash flow (cash in and cash out) and make a better value of their assets in the future. According to Falahati et al (2012) financial behavior is a description of how individuals must become a smart user in order to manage their personal finances. This can be done by improving financial literacy which leads to excellent financial behavior. It was explained that self-control is a useful financial behavior if it is understood and then applied to everyday life (Falahati et al., 2012).

Chinen & Endo (2012) explain that financial behavior is related to an individual's ability to make the right decisions so that they are able to determine their priority for their financial activities. Therefore, financial behavior and behavioral finance are two different things. Behavioral finance is a science that studies how humans respond kasto existing information in an effort to make decisions in which elements of human attitudes and actions are determining factors in investing Jahanzeb & Muneer (2012). Financial behavior is related to attitudes and behavior per individual in financial management activities such as saving and so on, while behavioral finance is a science that examines psychological factors that influence investors in making investment decisions both individually and organizationally (Budiyono & Krisnawati, 2021).

Digital Ecosystem

Digital ecosystems are result from digitization processes on various elements of business models (Palmié et al., 2022). A digital ecosystem emerges where companies engage in technology-based value creation for customers. Within this ecosystem, there are physical and non-physical interactions, for example, with digital service providers, product suppliers, and end customers. Morgan-Thomas et al. (2020) explain that a digital ecosystem is an ecosystem that actively involves consumers and is a socio-technical phenomenon. Consumer action refers to using physical devices, digital systems, and platforms. Barykin et al. (2020) in their findings, said that in a digital ecosystem, competition is eliminated, and most organizations will form alliances to work together to achieve one particular goal. Barykin et al. (2020) also explained that the digital ecosystem is a system that dominates the role of modern digital technology with features of expanding the work of economic agents.

Trust

Trust is a set of expectations individuals have when they are involved in information exchange activities (Bongomin & Ntayi, 2020a). Adams (2021) explains that trust arises from the same moral values that create hope. Concerning finance, (Adams, 2021) explains that trust is related to morality and financial professionalism. Trust from a financial perspective can also be interpreted as user expectations that the financial institutions and products they use are reliable in terms of quality and safety (Park et al., 2020). Concerning trust, if an individual has a low level of trust, the individual will choose to be less involved in the activity in question. Meanwhile, with high trust, individuals will tend to stay in these activities/institutions/products (Cruijsen et al., 2021)

Customer Digital Protection

Moor (1997), in his theory of Restricted Access/limited Control (RALC), states the importance of implementing strict controls in establishing privacy to limit others from accessing one's personal information. According to Bongomin & Ntayi (2020b), implementing RALC is the right place to implement online privacy policies to address various privacy issues concerning digital transactions. According to Marano (2019), it is explained that digital customer protection is used to protect users of financial products such as insurance. This protection is also used when customers are dealing with digital financial intermediaries. According to the Mazer et al. (2017), digital customer protection is an essential element of an inclusive financial system, ensuring that users of formal financial services receive transparent and fair treatment to instill confidence in formal financial services and providers. Bongomin & Ntayi (2020b) used digital consumer protection variables in their research, which were measured using items obtained and modified from Malady & Law (2016), Mazer et al. (2017) and Park & Mercado (2018). The items that are indicators of digital consumer protection generally illustrate that consumer protection is essential for regulators and financial service providers to provide users with a sense of security and trust in using digital financial services.

Mobile Money Usage

Mobile money is a facility that provides services for digitally storing and transfering money through mobile phones (Myeni et al., 2020). The same thing was also stated by Gosavi (2018), mobile money allows individuals to carry out financial transactions using cell phone technology. Meanwhile, mobile money usage is a condition in which basic financial activities (eg, deposits, withdrawals, money transfers, and bill payments) are carried out using the available digital system. Regarding mobile money usage, Riley (2018) explain that mobile money allows payments using a mobile phone without needing a bank account and expensive equipment. This easy access without a bank account is a substantial factor in promoting financial inclusion among the poor (Murendo et al., 2018). This is also supported by research from Peruta (2018) where mobile money is designed to overcome people's difficulties in entering the banking system due to the lack of banking infrastructure and the inability of the financial side of the community itself.

Financial Inclusion

According to Selvakumar et al. (2015), the term financial inclusion can be defined as ensuring access to timely and adequate financial and credit services for low-income groups of people at affordable costs. Atkinson & Messy (2013) explain that financial inclusion is a process of promoting access to various financial products and services that are affordable, timely, and adequate, which are regulated through the implementation of innovative approaches. According to Selvakumar et al. (2015), financial inclusion can be

defined as ensuring access to timely and adequate financial and credit services for low-income groups of people at affordable costs. Budiyono & Krisnawati (2021) also stated that financial inclusion is a situation in which people are able to access financial services, especially for the poor. The dimensions of financial inclusion adopted by Bongomin et al. (2018) are access, quality, usage, and welfare.

The Effect of Mobile Money Usage on Financial Inclusion

According to Adaba et al. (2019), mobile money is a financial service that use mobile phones as the primary access medium. According to Hasibul et al (2019), this service is extremely well used by those with limited access to formal financial services, particularly because of the cost-effectiveness supplied to deliver additional advantages to consumers. According to Munyegera & Matsumoto (2016) the simplicity and cheap cost of transactions provided by this service (e.g., online shopping, payments, investments, and others) are the major drivers driving its development. According to Bongomin & Ntayi (2020b) adopting mobile money services can promote greater financial inclusion. Bongomin and Ntayi also said if mobile money increases it will be followed by an increase in financial inclusion. Financial inclusion is the situation of people at all levels readily accessing financial services (Paramasivan & Ganeshkumar, 2013). According to Batista & Vicente (2020), mobile money can provide financial services to persons who have not utilized traditional financial services. According to the literature review, the initial hypothesis of this research is as follows:

H1: Mobile money usage has positive effect on financial inclusion

The Effect of Mobile Money Usage on Digital Customer Protection

Mobile money service is a same term as e-money (Pratiwi & Krisnawati, 2021). Its usage is paralleled with the spread of digital technology. According to Bongomin & Ntayi (2020b), digital customer protection is a variable that is regarded to directly or indirectly moderate the effect of the variable link between the usage of mobile money and financial inclusion factors. Caruana (2016) findings show that widespread digital-based technologies, including mobile money, will accompany a rise in the threat of digital crime or cybercrime. According to Akomea-Frimpong et al. (2019) mobile money carries damaging dangers. Hence its adoption will be accompanied by the implementation of customer protection. Bongomin & Ntayi (2020b) focused their research on the influence of digital customer protection on financial inclusion by inverting the premise.

A digital environment in financial products and services certainly increases financial inclusion. It also affects the level of importance in making regulations related to consumer protection so that they can adapt optimally to the new digital financial environment (OECD, 2018). Garrido & Nolte (2021) explain that as e-money grows globally, it will impact the need for regulators to focus on consumer protection. It was also explained that digital financial services have risks, including lack of regulation. These risks can result in adverse outcomes for both consumers and service providers. Therefore, increasing mobile money usage should be accompanied by increased consumer protection (OECD, 2018). Islam et al. (2022); Mugume & Bulime (2022); Shaikh et al. (2022) explain that although mobile money has various advantages, it also creates some problems. Those who do not have sufficient knowledge of using this service will be trapped at the risk of data privacy and fraud. Therefore, increased mobile money needs to be accompanied by increased digital protection.

The research conducted by Bongomin & Ntayi (2020b) was carried out in reverse because they wanted to determine whether

digital customer protection can mediate between the use of mobile money and financial inclusion. The second hypothesis for the relationship between mobile money usage and digital consumer protection is formulated the other way around (Bongomin & Ntayi (2020b). The study formulates a hypothesis that looks for the effect of digital consumer protection on mobile money usage. This hypothesis could be developed and become an addition to the previous hypotheses in this study based on literature analysis. However, to meet the suitability of the mediation path analysis in this study, the second hypothesis was set that mobile money usage significantly influences digital consumer protection. The development of this hypothesis is also adapted to the findings presented by Saunders (2019) and Caruana,2016). Finally, the second hypothesis of this research is as follows, based on the literature review:

H2: Mobile money usage has positive effect on digital customer protection.

The Effect of Digital Customer Protection on Financial Inclusion

According to FSA (2020), customer protection is required to manage digital financial service users since this use can eventually improve financial inclusion. Schicks (2013) also agrees that when it comes to enabling more comprehensive financial inclusion with digital financial products, customer safety is critical and must be provided by all stakeholders. According to the FSA (2017) , there is a relationship between customer protection and financial inclusion. Customer protection is intended to be a measure to prevent crime in the financial sector where the community can enhance their capacity to utilize financial services, according to the statement. Furthermore, it is envisaged that customer protection would inspire greater financial inclusion with expanded knowledge and capacities. Mazer et al (2017) also emphasizes consumer safety in an inclusive financial system. The third

hypothesis of this research is as follows, based on the literature review:

H3: Digital customer protection has positive effect on financial inclusion

Mobile Money Usage and Financial Inclusion: digital customer protection as a mediator

According to Maurer (2012) mobile money financial services are a financial innovation that intends to offer citizens in developing nations access to financial services. Mobile money refers to using mobile-based financial technologies (such as remittances) supplied by banks and non-banks (Upadhyay & Jahanyan, 2016). According to Narteh et al.(2017), mobile money or e-money is a service that uses mobile phones to access financial services to enhance financial inclusion. Joseph (2020) also explains that mobile money usage is the activity of using mobile money which can be used as a means of saving money and earning interest. Financial inclusion is the availability of financial access by the public to banking and non-banking goods and services that meet the community's requirements to attain prosperity (Lal, 2019). According to Abel et al (2018) financial inclusion include activities such as payments, savings, credit, and insurance, which must be well-organized and give societal advantages such as affordability. According to the Ozili (2018), using digital financial services that might enable increased financial inclusion must be coupled with more effective customer protection.

Digital customer protection is a type of customer protection that ensures that they, as service users, have knowledge that supports financial decisions, allowing them to subsequently avoid unlawful and unfair acts by irresponsible individuals and service providers (World Bank, 2012). According to Garg & Agarwal (2014), suppliers must guarantee that goods are supplied securely and ethically to promote financial inclusion via mobile money assistance. The fourth hypothesis in this

investigation is as follows, based on the current literature study:

H4: Digital customer protection mediates the relationship between mobile money usage and financial inclusion.

The research framework in this study is shown in Figure 2.

RESEARCH METHODS

According Park et al (2020) the positivist paradigm is used in this study to guarantee that there is a cause and effect link in forecasting current patterns of social phenomena. This paradigm relies on the hypothesis that is often expressed in quantitative methods where the relationship is derived from causal factors (independent variable) and effects factor (dependent variable). In this study, quantitative approaches and variable testing are used to determine the relationship of variables to one another (Neuman, 2003). The form of data distinguishes the quantitative method in the form of numbers or numerals that will be processed with data processing tools determined by the researchers, both statistically and mathematically (Sekaran & Bougie, 2019).

Based on the research process, the researcher developed deductive research where concepts were used to answer the existing hypothesis formulation (Kasim & Antwi, 2015). According to the kind of study, it comprises correlational research, which seeks to determine whether or not there is a link between two or more variables, as well as the degree of association between these variables (Bougie & Sekaran, 2020). According to its goal, this study is a causal study that seeks to investigate one or more factors that influence the occurrence of other variables (Sekaran & Bougie, 2019). In this study, the unit of analysis is the individual who is a member of the productive age community in the Yogyakarta province. Based on the implementation time, this research is a cross-sectional study completed in a single period and then processed to conclude. Cross-sectional study is another term of one-shot method (Sekaran & Bougie, 2019)

Population and Sample

The researcher is concentrating on study for Yogyakarta Province's productive age population. Those between the ages of 15 and 64 are considered productive. The following table shows the number of individuals of productive age based on statistics from CSAYP (2022). Population of this research amounted to 69% of the productive population in the Special Region of Yogyakarta, with a total of 2,234,225 million people. The data is shown by Table 1.

Non-probability sampling is used as the sampling method with quota sampling used to limit the sampling to a predetermined number of samples. Quota sampling is another type of purposive sampling that targeting the specific criterion in the research (Sekaran & Bougie, 2019). The slovin formula is used to calculate the number of samples. The minimal sample size for this study with 2.234.225 samples and the constant tolerance of precision slack by the researcher is 5% or 0.05, so the number of samples is 400 participants.

Measurement

The questionnaire was taken from past research, which was then matched with the conditions of the research object. For the question items to be reliable and valid, modification activities are carried out in line with the guidelines of Churchill & Iacobucci (2006) The scale used in this research is an ordinal scale that categorizes variables and arranges the order of the existing categories. However, it does not yet provide information on the magnitude of the differences between existing levels (Sekaran & Bougie, 2019). Therefore, this study also uses a Likert scale which is divided into five alternative levels of answers with statements that strongly agree, agree, neutral, disagree, and strongly

disagree (Sekaran & Bougie, 2019).The weight of the Likert scale assessment in this study strongly agrees (SS) with a score of 5, Agree (S) with a score of 4, Neutral (N) with a score of 3, Disagree (TS) with a score of 2 and Strongly Disagree (STS) with a score 1.

The variables to be measured in this study consist of independent variables, namely the use of mobile money, which uses two dimensions: intention to use and user experience. Bongomin et al. (2018) explained that mobile money is a technology-based financial product that can expand financial services in society. 13 question items for the variable of mobile money usage were adopted from Bongomin et al. (2018). The mediating variable is digital customer protection. Consumer protection is believed to be a service or a regulation capable of providing fair treatment so that trust is built using formal finance (Mazer et al., 2017). This research adopted 16 question items for the digital customer protection variable, which are modifications from Bongomin & Ntayi (2020b). The dependent variable in this study is financial inclusion with four dimensions: quality, welfare, access, and usage. In this research, 10 question items for financial inclusion variables were adopted from Bongomin et al. (2018). In the end, the researcher used a questionnaire with 39 question items in this study with 425 respondents in Yogyakarta.

Data Collection and Source

The major data sources utilized in this study were gathered directly from distributing questionnaires online and offline to a minimum of 425 respondents based on sampling from productive age populations in the Special Region of Yogyakarta. The secondary data is the result of other parties' processing, such as books, previous research journals, official websites, and news related to research conducted, i.e. information on the number of productive age population in the Special

Region of Yogyakarta from documents from the Central Statistics Agency. The data collection tool in the study, namely the questionnaire, was tested for validity and reliability using SPPS Version 25. The validity test was used so that the instrument used afterwards could truly measure the topic the researcher was addressing or measuring. The reliability test ensures that the instrument utilized consistently produces data after two or more research activities.

Data Analysis Method

This research used descriptive and mediation analysis for the analytical approach. Descriptive analysis is used to describe and summarize data to make it easier to conclude. Descriptive analysis is consist by describing a responden of the research (i.e a characteristic, demographic data, events etc) (Sekaran & Bougie, 2019). The correlation approach, specifically the Pearson correlation, was used to measure the relationship to determine how strongly two variables were related. A pearson correlation indicates about the strength, direction and significance between all the variable in this research (Bougie & Sekaran, 2020). The classic assumption tests, namely normality, heteroscedasticity, and multicollinearity, were performed before the mediation analysis to ensure that regression data processing was not biased.

To examine the existence of mediation between the independent and dependent variables analyzed, Baron & Kenny (1986) and Preacher & Hayes (2004) employed mediation analysis using the bootstrapping approach (PROCESS). Baron & Kenny (1986) tests were carried out by estimating three regressions. The Sobel test and the bootstrapping approach (PROCESS by Hayes) will generate coefficient values on the current impact model, direct and indirect effects, and effect magnitude. The Sobel formula is used to compute the standard error of mediation analysis:

$$Sab = \sqrt{b^2\ Sa^2 + a^2\ Sb^2 + Sa^2\ Sb^2} \ .... (1)$$

Where :
a   = Mobile Money Usage
Sa   = *Standard error a*
b   = Financial Inclusion
Sb   = *Standard error b*

RESULT AND DISCUSSION
Result

A sample of 30 respondents was used to test the validity and reliability of the questionnaire items. The validity test indicates the extent to which the measurement accurately represents the construct to be measured (Hair et al., 2014). In this study, the validity test was carried out by conducting a bivariate correlation between each indicator score and the total construct variable score. The validity test results were seen from the Pearson correlation and Sig. (2-tailed). According to Cohen (1988), the correlation coefficient value of the Pearson product-moment test of more than 0.5 indicates a strong correlation. These values indicate a strong positive correlation between predictors and outcome variables. Conversely, if the Pearson product-moment test correlation coefficient is less than 0.5, it indicates a low or weak correlation. In addition, a significant correlation can be seen from the Sig. (2-tailed) value which is less than 0.05. So, the correlation coefficient value of the Pearson product-moment test is more than 0.5, and the Sig. (2-tailed) value is less than 0.05, indicating that the indicator for each variable is valid. The reliability test is intended to demonstrate the amount of stability of the researcher's instrument. For example, it was discovered using SPPS Ver.25 that the construct on the questionnaire had a Cronbach's alpha value more than 0.6, indicating that the questionnaire employed in this study was reliable (Sekaran & Bougie, 2019). The construction of the research variables is mobile money usage by 0.941, digital consumer protection by 0.847, and financial inclusion by 0.899.

The result of Pearson correlation shows that value of mobile money usage (X) and digital customer protection (M) is 0.651 > 0.05 when calculating the strength of the relationship between variables, indicating that both variables are positively connected with a strong relationship level. The mobile money usage (X) and financial inclusion (Y) then have correlation coefficients of 0.467 > 0.05, indicating that both are positively connected with the strength of the relationship in the medium category. Finally, financial inclusion (Y) and digital customer protection (M) have a correlation coefficient of 0.585 > 0.05, indicating that they are positively related to moderate strength.

The result of classic assumption test shows that the asymp.2 (2-tailed) value of 0.172 > 0.05 indicates that the residual is normally distributed, based on the results of the statistical normality test using Kolmogorov-Smirnov. The results of the Glejser test, where the significance level for both variables is greater than 0.05, indicating that the heteroscedasticity test was passed. The tolerance value for the two variables is 0.999 > 0.1, and the VIF is 1.001 < 10, indicating that the multi-collinearity test was passed. So, this research passed the classical assumption test.

This study uses data from 425 respondents obtained from an online and offline collection. The characteristics of the respondents are provided in Table 2, where the research respondents are considerably dispersed. Female respondents have a larger percentage (51%), whereas male respondents have a lower percentage (49%). Based on the level of education, the largest percentage is those who have the last education at the S1/D4 level. It can be noted that the responders with the highest proportion are those aged 20-24 years old. Meanwhile, respondents aged 60-64 years old were the fewest in the study. According to the respondents' jobs, the respondents were dominated by those who work as private employees and

students. Respondents who work as private employees are 32%, while respondents who work as students are 27%. When combined, the two dominate the respondents, namely by 59%. According to income, the highest proportion is between Rp. 1.500.001 and Rp. 2,500,000, namely by 38%. Furthermore, when looking at the activity of utilizing mobile money services, it is still 56% dominated by payment activities. In this study, respondents can choose more than one option for using mobile money. Apart from being a means of payment, mobile money is also used to do investment activities (5%,) remittances (33%), withdrawals (4%), and financing (2%).

Table 3 shown the response value of each variable which is one of the outcomes of the subsequent descriptive analysis. It shown that the mobile money usage is in a good category; digital customer protection and financial inclusion are excellent. The productive age community in the Special Region of Yogyakarta has the purpose and contentment to use the service effectively. According to the digital customer protect-ion variable results, the public believe customer protection in using mobile money services is excellent. Finally, findings of the financial inclusion variable show that the community benefits greatly from the use, accessibility, quality, and impact on community welfare, this suggests that all of the variables have the potential to be extremely effective in reducing poverty.

To find the mediation result, the researcher used linear regression analysis by Sobel and Kenny's computations, and the data were then processed by Hayes' PROCESS. Table 4 shows the computation results of Baron Kenny & PROCESS by Hayes method. Figure 3 also shows the visualization of research hypothesis. Based on the Table 5, the regression equation of the first model for variables X and M is shown in the first column table, with a regression coefficient of 0.453 (a) and a p-value of 0.05. The second model's equation is the regression of variables X and Y with

a total effect of 0.482 (c) and a p-value of 0.05. Multiple regression equations for X and M versus Y provide a regression coefficient of 0.521 (b) and a direct impact of 0.246 (c') with p-values of 0.05. As can be observed, the overall effect of 0.482 (c) is larger than the direct effect of 0.246 (c'), implying that the requirements for mediation are met.

The indirect impact is calculated by multiplying the regression result of the first model (a), which is 0.453, by the result of the third model (b), which is 0.521, yielding a value of 0.236 (ab). So, the direct effect for this model is 0.246 (c') and the total effect is 0.482 (c). These results are evidence of mediation in this research model also explain why this study is a part of partial mediation. Mobile money usage affects financial inclusion both directly and indirectly through digital customer protection. Mobile money's usage can potentially affect financial inclusion with or without the intervention of a mediator, particularly digital customer protection.

According to the Table 4 of regression findings for mobile money usage on financial inclusion in the second model (c) and the third model (c'), it explain that H1 is accepted, so mobile money usage has a positive effect on financial inclusion and also significantly affects financial inclu-sion. As a result, increased of mobile money usage in the community will pro-mote financial inclusion. This result is consistent with the findings of Budiyono & Krisnawati (2021), Bongomin et al. (2018), Bongomin & Ntayi (2020a,2020b), who found that mobile money usage influenced financial inclusion. In addition, Donovan (2012) expressed the same thing, stating that financial service providers such as mobile money were able to close the access gap to financial services, hence increasing financial inclusion. Attempts to expand mobile money usage must be maintained since it will lead to greater financial inclusion for the residents of the Special Region of Yogyakarta.

With a p-value <0.05, the coefficient value of mobile money usage in digital customer protection is 0.453 so H2 is accepted. According to these findings, mobile money usage has a positive effect on digital customer protection. Mobile money usage significantly affects digital customer protection. The result indicating that the rise in mobile money use in the productive age demographic in the Special Region of Yogyakarta will be matched by increased digital customer protection. Pratiwi & Krisnawati (2021) demonstrate the same thing: the more mobile money is used by the public, the higher the danger of the usage (data security, user privacy, etc.); therefore, digital customer protection must be implemented as well. Caruana (2016) echoed the same viewpoint, claiming that introducing digital technology will increase cyber assaults, particularly regarding data security and customer privacy. This is the foundation for the need to strengthen digital customer protection.

The third model shows that the coefficient value for b is 0.521 with a p-value <0.05, which indicates that H3 is accepted. Digital customer protection has a positive effect and also significantly affects financial inclusion. In the Special Region of Yogyakarta, digital customer protection has a big and favourable impact on financial inclusion in the productive age group. Increased digital safety or customer protection will complement the increased of societal financial inclusion. According to Pratiwi & Krisnawati (2021), enhancing digital customer protection in the productive age group will promote financial inclusion. According to (Malady & Law, 2016), digital customer protection is required to increase confidence. Trust is one of the criteria influencing public financial inclusion (Budiyono & Krisnawati, 2021).

Then, to answer H4, the results of the mediation test show that the coefficient value of the second model is 0.482 with a p-value <0.05, and the third model is 0.246

with a p-value <0.05 (c > c'), indicating that H4 is accepted in this study. The indirect impact is then calculated using the Sobel formula as follows:

$$Sab = \sqrt{(0.521)^2(0.056)^2 + (0.453)^2(0.048)^2 + (0.056)^2(0.048)^2} \quad ....(2)$$

Sab = 0.0365

Based on these calculations, the t-test is carried out as follows:

$$t\ test/Z = \frac{ab}{Sab} \quad ....(3)$$

= 0.236 / 0.0365

= 6.468

The result of the Z or t-test, which is the point of the efficacy of the mediation effect, is 6.468 > t table (1.96), based on the previous calculation at a significance level of 5%, where the t table is 1.96. If t count > t table, it is possible to conclude that the indirect effect of mobile money on financial inclusion as a mediator is large. This demonstrates a mediating impact between mobile money use, digital customer protection, and financial inclusion, hence accepting H4.

The PROCESS by Hayes is then carried out to obtain the effect value on the indirect effect. Table 5 shows the result of the effect size from PROCESS by Hayes. According to the impact size, the value of the mediating variable falls into the medium group, which is between 0.15 and 0.35 (Cohen, 1988). As a result, with a strong indirect effect and moderate effect size, digital customer protection considerably mediates mobile money usage and financial inclusion in productive age populations in the Special Region of Yogyakarta. Bongomin & Ntayi (2020b) also explain how mobile money usage impacts financial inclusion, with digital customer protection acting as a partial mediator for MSMEs in Uganda. Prathap & Khaitan (2016) reach a similar conclusion, stating that while mobile money helps boost financial services, it must be supplied responsibly.
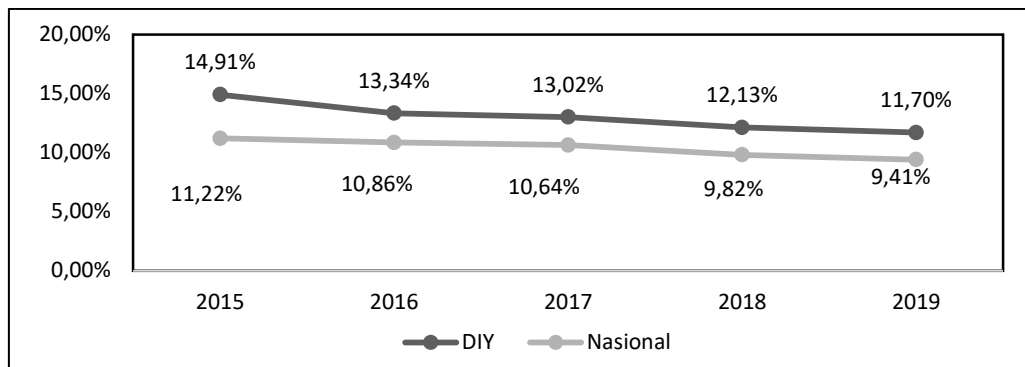
Figure 1. Yogyakarta Province vs National Poverty Rate Chart
(Source : Central Statistics Agency of Yogyakarta Province, 2021)
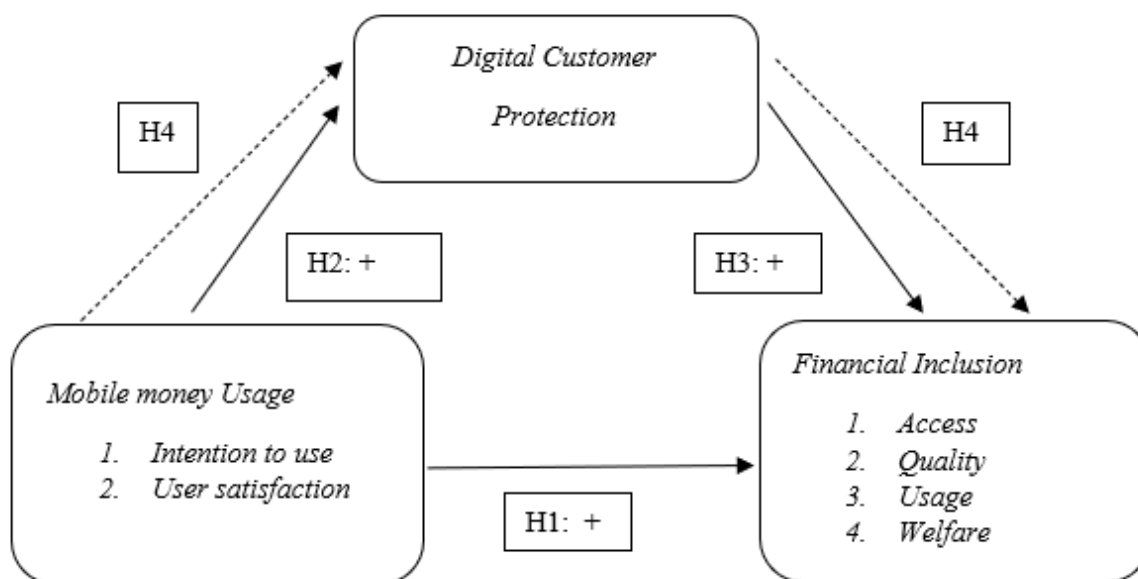
Figure 2. Research Framework

Table 1. Total Population of Yogyakarta Province in 2020-2021

Total Population of D.I.Yogyakarta, 2020-2021				
Age Group	**Male**	**Female**	**Total**	**Percentage**
0-14	383,410	365,347	748,757	20%
15-64	1,256,596	1,267,629	2,524,225	69%
>64	178,921	217,816	396,737	11%
Total	1,818,927	1,850,792	3,669,719	100%

Source: Central Statistics Agency of Yogyakarta, 2022

Table 2. Characteristics of Research Respondents

| Characteristics	Categories	Frequency	Percentage (%)
Male/Female	Male	210	49%
	Female	215	51%
Age	15-19	71	17%
	20-24	101	24%
	25-29	93	22%
	30-34	41	10%
	35-39	34	8%
	40-44	28	7%
	45-49	21	5%
	50-54	20	5%
	55-59	13	3%
	60-64	3	1%
Educational Background	Elementary School	5	1%
	Middle School	98	23%
	High School	118	28%
	Diploma 1	16	4%
	Diploma 3	28	7%
	Graduate/bachelor's degree	125	29%
	Undergraduate/magister	24	6%
	Doctoral Degree	11	3%
	Others	0	0%
Income	>IDR 1.500.001	120	28%
	I.500.001 – 2.500.000	163	38%
	2.500.001 -3.500.000	64	15%
	< IDR 3.500.001	78	18%
Job	Doesn't work	19	4%
	Laborer	19	7%
	Private sector employee	138	32%
	Student/Student	116	27%
	Self-employed	54	13%
	Farmers/Growers	17	4%
	PNS/TNI/ASN	33	8%
	Others	19	4%
Use of mobile money (*respondents can choose more than one option)	Payment	249	56%
	Remittance	149	33%
	Savings/Investment	22	5%
	Withdrawal of Balance	18	4%
	Loans/Financing	10	2%
	Other	0%	0%

(Source: processed data, 2022)

Table 3. Results of Descriptive Analysis for each Variables

Variables	Dimension	(%)		Category
		Per dimension	Total per Variable	
Mobile Money Usage	Intention to Use	82.12%	81.15%	Good
	User Satisfaction	80.18%		
Digital Customer Protection			84.44%	Excellent
Financial Inclusion	Access	86.45%	84.01%	Excellent
	Quality	81.73%		
	Usage	82.74%		
	Welfare	85.11%		

Table 4. Research Framework Result with Baron Kenny & PROCESS by Hayes

Predictor	Digital Customer Protection			Financial Inclusion					
	Model 1			Model 2			Model 3		
	Coeff	SE	p	Coeff	SE	p	Coeff	SE	p
Constant	1.2854	0.1013	0.0000	1.347	0.1321	0.0000	0.788	0.1432	0.0000
Mobile Money Usage	0.453	0.056	0.0000	0.482	0.031	0.0000	0.246	0.0435	0.0000
Digital Customer Protection							0.521	0.048	0.0000
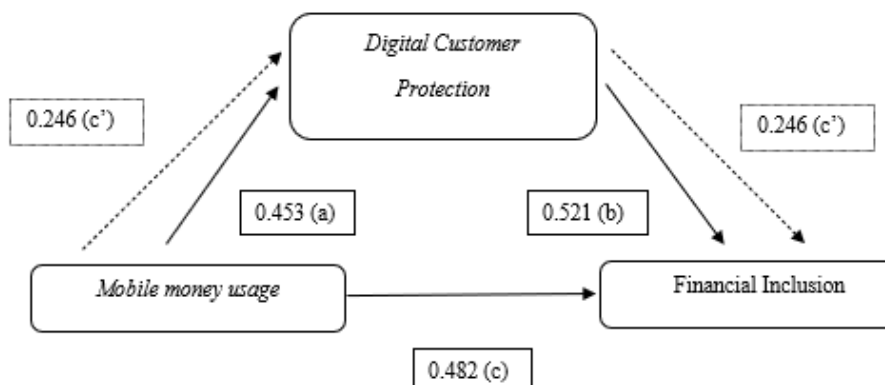
Figure 3. Research Framework Visualization

Table 5. Effect Size Result form PROCESS by Hayes

Indirect Effect	SE	Direct Effect	SE	Effect Size
0.2360	0.0401	0.246	0.0435	0.3458

Discussion

The primary respondent for this research is productive age community aged 15-64 years old. The results of distributing the questionnaires were then analysed to see the respondents' responses to the variables studied. From the results of the descriptive analysis, the variable use of mobile money consists of two dimensions, namely intention to use and user satisfaction. The results of the responses of respondents in this study amounted to 81.15%, where the dimensions of intention to use were 82.12%, and user satisfaction was 80.18%. This value indicates that mobile money usage in Yogyakarta Province is good. People of the Special Region of Yogyakarta desire to use this service to facilitate their financial activities. In addition, the people of DIY have reasonable satisfaction in using this service. Suppose the results of the respondents' responses as a whole are

related to the characteristics of the respondents based on the last level of education, namely undergraduate, and the dominance of people aged 20-29 years. The level of education and age immensely influence mobile money usage because those who are old enough, especially those who are highly educated and have an income, will find it easier to decide on financial activities more wisely. Mobile money has penetrated well in people's lives, especially those quite mature.

The researcher looked deeper into the research characteristics associated with responses to each variable related to the districts of origin. Overall, four regencies and one city had a good response, indicating that this service has been adopted by people who live in urban or rural areas such as Gunungkidul Regency. Furthermore, based on the gender of the research respondents, both had good category responses. This means that both men and

women value this use based on the intention to use it respectively. These results in accordance with the phenomena that occur and are explained in the background where currently, the Indonesian people are in a state of information technology penetration, one of which is high smartphone usage. The high use of mobile devices and rapidly growing internet services in Indonesia have increased public access to technology-based services, one of which is increasing mobile money usage in Indonesia. Mobile money service is expected to be an instrument for the public to gain access to finance, especially for people who have not been touched by formal financial services such as banking.

Furthermore, the results of the descriptive analysis for digital customer protection as a mediation variable amounted to 84.44%, so it was in an excellent category. This result means that respondents feel that digital consumer protection can be a positive thing in mobile money usage services for their financial activities. The researcher relates these results to the characteristics of mobile money usage chosen by respondents, where one respondent can access more than one type of transaction, including saving, payment, investment, and other activities. With more than one choice of transactions, platforms for using mobile money need to pay more attention to increasing people's sense of security and trust because of its various uses. Digital consumer protection has been well-received by respondents, and this is an important point, so that related parties need to continue to be strengthened in accordance with IT developments and financial behaviour in the future.

Based on the existing data in the background of this research, in Indonesia, the protection of consumer data security is something that continues to be improved. One of them is mobile money. When connected with the Covid-19 condition that has occurred in recent years, this condition is another factor that encourages people to switch from conventional to digital finan-cial transactions. The greater the number of digital financial transactions, the linearly increases the risk in digital transactions. This is crucial for mobile money, which will then affect financial inclusion. Because this service is very close to incoming and outgoing money transactions, consumers are most looking for a sense of security. Without special protection for consumers, the risks of transaction on this service are also high and causing little to no trust to the mobile money platform and a low sense of security in using mobile money.

Descriptive analysis for financial inclusion is 84.01%, whereas it categorized as excellent category. In this variable, there are four dimensions. The best dimensional analysis result is the access dimension of 86.45%, and the dimension with the lowest percentage level is the quality dimension, with a total percentage of 81.73%. This means that all people in Yogyakarta can properly access financial products and services in Yogyakarta. The availability of various transactions through mobile money can also provide increased access to finance to create sound financial management for the community. The quality of financial services and products is good, but it will be excellent if it is maximized. Even though this value is excellent, the level of community financial inclusion must still be increased to reduce poverty and increase people's welfare. When viewed from the phenomena described in the background, it is explained that Yogyakarta has high poverty and economic inequality problems. This condition is expected to continue to improve because the level of financial inclusion in Yogyakarta is also one of the highest in Indonesia. Along with the increasing socialization and education regarding financial inclusion, this also needs to be accompanied by the penetration of mobile money usage so that poverty and inequality in Yogyakarta will decrease.

In this study, researchers answered the research hypothesis using the method of Baron and Kenny. From the current

research results, it can be concluded that H1 is accepted, which means that the use of mobile money has a positive and significant effect on financial inclusion for both the second and third models. Mobile money usage impacts increasing financial inclusion (among) people of productive age in Yogyakarta Province. Increasing mobile money usage among people in Yogyakarta will also increase their financial inclusion. Given this, the findings of this study also support the findings of other studies. These results are supported by the findings of Bongomin & Ntayi (2020b) where it is explained that mobile-based technologies such as mobile money can cover the peak of access to financial services, especially for those who are classified as people who do not have a bank account. The same thing was conveyed by Budiyono & Krisnawati (2021), where mobile money has significantly increased the financial inclusion of the community, especially those in rural areas. Bongomin et al. (2018) stating that mobile money leads to financial inclusion in poor communities in the Uganda region. Mobile money is an affordable and reliable financial service solution both in urban and rural areas (Akomea-Frimpong et al. (2019). These findings can serve as a reference for mobile money service providers and regulators to work together to build a good ecosystem for using mobile money services and improve service performance according to consumer needs. With the synergy of various parties, financial inclusion is hoped to be increase.

Furthermore, the government's program "National Digital Transformation Program 2024" aims to see the Indonesian economy move towards a digital economy that is advancing in telematics technology to ensure that synergies continue to be carried out by all parties, one of which is operator consolidation (FSA, 2020). Since 2007 telecommunication industry, Telkom, have offered mobile money services for transferring and receiving money called T-Cash. T-Cash is the first mobile money in Indonesia (Hidayati, 2011). After The Central Bank of Indonesia granted licenses to telecommunications providers for mobile money products, it was discovered that the use of this innovation was still low. One of the factors for the low use of mobile money is the small number of mobile money agents in Indonesia (Hidayati, 2011). With infrastructure development such as the internet network ecosystem, Indonesia offers enormous potential on mobile money usage.

Then from the results of this research data processing, it can be concluded that H2 is accepted. Mobile money usage has a positive and significant impact on digital consumer protection. These results support the findings obtained by Pratiwi & Krisnawati (2021) where mobile money usage significantly influences digital customer protection. Caruana (2016) also shared a similar view that mobile money technology significantly impacts customer security and privacy, so the need for increased customer trust is very much in use for this feature. Malady & Law (2016) added that with the emergence of mobile money, user trust is an important aspect that must be realized through digital customer protection. Research from Saunders (2019) explains that this technology has the potential to pose a risk of fraud. Volken (2009) argues that experience is an element in building. Krisnawati and Pratiwi explained that this experience was needed to evaluate the technology and provide trust suggestions for improvement. Bongomin & Ntayi (2020b), reinforce this where the use of mobile money affects user trust due to experience in using technology. One way to build trust is to provide good consumer protection. If mobile money usage increases, digital consumer protection will also increase. This is also a form of increased risk impact, a multiplier effect from using mobile money. With the increasing use of this technology must also be accompanied by increased consumer

protection. This can also be used as a reference material for service providers and regulators to pay attention to user comfort and safety.

In this study, H3 is accepted, which means that digital customer protection has a positive and significant effect on financial inclusion. These results follow Joseph (2020), which explains that environments/ecosystems that run digitally will support the penetration of financial products and services. With a digital ecosystem in which digital security protection exists, financial inclusion will be formed. This is in line with Mazer et al. (2017), where consumer protection is essential in the current digital ecosystem era. With consumer protection, financial inclusion is expected to continue to grow. Pratiwi & Krisnawati (2021) obtained similar results where digital customer protection had a positive and significant effect on financial inclusion. Increasing digital consumer protection will be followed by increasing financial inclusion.

Along with the government's efforts to increase financial inclusion through digital financial services like mobile money, consumers must be aware of potential risk. Using the internet in economic transactions exposes one to transaction security risks (FSA, 2020). The hazards can occur since this transaction demands personal data such as a user's name, phone number, and address, among other things. Data privacy is one of the most pressing challenges in implementing this internet-based digital financial service. An increasingly digital environment for financial activities will be supported by increased digital security, which in turn has a high potential to support greater financial inclusion. It is expected to be an essential point for service providers to carry out their activities based on high-security principles to assist the government in increasing public financial inclusion. So, FSA published a "Digital Financial Innovation Roadmap and Action Plan 2020-2024", which includes the provision of a balanced regulatory environment, market behavior monitoring, and adaptive regulations (FSA, 2020).

Then the last hypothesis in this study (H4) is accepted, which means there is a partial mediation function by digital customer protection in mobile money usage and financial inclusion, especially for people of productive age in Yogyakarta. The relationship mediates digital customer protection between mobile money usage and financial inclusion (Bongomin & Ntayi, 2020b). Prathap & Khaitan (2016) also explained that in addition to products that meet consumer needs, it is also essential to carry out promotions related to financial inclusion through mobile money. It hopes mobile money services will continue to ensure that the products sold do not exclude risks as consumers, so they must still be responsible for consumer security activities. This shows that using the right services can increase financial inclusion. In this effort, digital consumer protection is needed as a mediator to create a sense of security and trust in the user. With these findings, all relevant regulators such as the FSA, Central Bank of Indonesia, and other institutions should support education and socialization of the importance of using mobile money in all circles and participate in disseminating appeals to the public about the importance of understanding risks and mitigating financial risks in order to avoid cyber-attacks in the financial activities

FSA (2021) stated that Indonesia's financial services sector development has remained favorable despite global economic difficulties due to Covid-19 in 2020. According to FSA (2021)said Indonesia's degree of financial inclusion has increased to 76.19%. However, this growth has not been accompanied by an increase in the financial literacy index, indicating that the general people do not entirely comprehend the financial goods and services they use, one of which is illegal investing (FSA, 2020). According to FSA's data, 99.07% of

the public still engages in formal financial services in banks, followed by the insurance industry, pension funds, and others. Based on this data, President Jokowi stated in his order that the critical goal is to increase financial inclusion, particularly in internet-based digital financial services (FSA, 2020). Based on Researchers give several recommendations that consist of theoretical and practical recommendations. First, for the theoretical recommendation, the research target in this study focuses on individuals of productive age in a region; additional research should be more precise based on other factors such as age categorization (young adult society, etc.) or people's income, among others. The second one is if this study is conducted with the community as the aim, it is best to do research that focuses on MSMEs in the Special Region of Yogyakarta. Researchers suggest that data collection activities be carried out offline to minimize misinterpretation from respondents and use other variables, such as trust variables, perceived usefulness, digital financial innovation, financial perceptions, and others. Researchers suggest to adopt a cross-lagged model so that the mediation results are unbiased. Future researchers are expected to be able to use qualitative research methods, for example, interviews or FGDs, which allow them to enrich the results of research in this field. Future researchers are enabled to conduct longitudinal research to see the behavior in society over time.

The researcher gives practical recommendations, first suggestions for mobile money financial service providers; it is desired that the provider would give an explanation of the ecosystem for utilizing this service, as well as clear information on security and customer protection, such as using language that is simpler to comprehend for all groups so that technically the public will understand better how to use this service. In addition, it is recommended that mobile money service providers give extensive security advice on how to

safeguard user accounts from scammers. The second suggestion is that the community must increase financial literacy so that people are smarter and wiser when choosing financial services, particularly mobile money, to avoid fraud that hurts the community. Furthermore, it is suggested that the general people serve as a source of information for promoting this financial service to other communities. Finally, it is envisaged that with the confidence that comes from word of mouth, it would be possible to grow the usage of mobile money in the community.

Institutions that provide mobile money services must intensify their product promotion through a variety of strategies, such as focusing on providing products at a lower cost to the lower middle class or focusing on more widespread information dissemination in areas where the population has not been touched by formal financial institutions, such as banking. In terms of digital customer safety, mobile money service managers must work with key organizations such as the FSA to tighten customer protection regulations, allowing service providers to profit from the increased public trust. Internal safeguards are also required, one of which is the security of the customer database. Finally, mobile money service providers must interact with telecoms service providers since, as observed, some communities in the Special Region of Yogyakarta, such as Gunungkidul Regency, continue to have trouble accessing the internet due to inadequate facilities. With an expanding number of telecommunications service providers providing reliable internet connection, even in rural regions, it is envisaged that mobile money usage would expand in metropolitan and rural areas.

The results of this study are expected to be used as a reference in the development of management studies, especially financial management related to individual behavior (financial behavior), especially regarding mobile money usage and financial inclusion. It is hoped that the

results of this study will be used as a reference for further research on related topics. With these findings, knowledge about mobile money will be enriched, especially concerning user experience and intention to use this innovation. In addition, it is expected to enrich knowledge about financial inclusion, especially in the dimensions of quality, access, welfare, and usage. With this research, it is hoped that it will also provide insight into the development of science in digital customer protection. The research results can benefit various parties and be implemented directly in Yogyakarta Province through the government, the Financial Services Authority, the Central Bank of Indonesia, and other stakeholders. With this research, it is hoped that it will become material for consideration and input in making programs and policies related to the use of mobile money to increase financial inclusion in Yogyakarta Provincestrategy for 2021-2025, one of the main goal is to increase access of digital financial services (FSA, 2020).

Digital financial services are an excellent strategy to improve financial inclusion since they enable people to connect to financial services anywhere and at any time (FSA2020). Digital financial services such as mobile money would be able to improve financial inclusion even in rural parts of Indonesia (FSA, 2020). The effectiveness and efficiency provided by mobile money are the primary reason why individuals in a country should utilize this technology. Mobile money has the potential to deliver low-cost, convenient, and secure financial services (Bongomin & Ntayi, 2020a). Another advantage of using digital services such as mobile money is that transaction costs are lower since users may indirectly reduce office network and operating expenses, provide services with more straightforward processes, and reduce risks (FSA, 2020). FSA said that the productive age group would improve the community's welfare through digital transformation opportunities in providing

services and products in the financial sector (FSA, 2020). Furthermore, with excellent financial inclusion, persons of productive age can raise their well-being.

With the current state of poverty and economic inequality in the Province of the Special Region of Yogyakarta, it is not impossible to overcome this by increasing of mobile money usage, which not only serves as a payment instrument but also provides a variety of other services such as savings, investment, delivery, and others at a lower cost. With the increased usage of mobile money, which is undoubtedly associated with increased financial inclusion, one factor that should not be overlooked is digital customer protection. Users do not escape feeling unsafe while using digital services, particularly regarding their assets. Thus, service providers must support the development of a solid digital customer protection ecosystem.

Bongomin & Ntayi (2020b) focused on MSMEs, while in this study, the researchers focused on the productive age population in an area. With these findings, it is hoped that with productive age assistance as the primary HR factor, the government's program to increase financial inclusion can be carried out intensively because of the ease of internet access they have. All regulators must build synergies with financial service providers and improve telecommunication facilities such as internet networks as one of the main factors supporting the use of mobile money. Financial inclusion will still increase without digital customer protection, but it must be understood that this aspect is crucial to increasing public financial inclusion. This will expand the use of these digital services, which will ultimately help alleviate poverty in the province of the Special Region of Yogyakarta. The community is expected to be more proactive in obtaining knowledge about mobile money in terms of its use and the problems that may occur. In addition, the community must understand how the

services provide security guarantees so that mobile money can improve people's welfare.

CONCLUSION, LIMITATION AND RECOMMENDATION

Based on the research findings and discussion above, all hypothesis is accepted. $H0_1$ is denied, whereas Ha_1 is approved, implying that mobile money usage positively and significantly affects financial inclusion in terms of quality, usage, activities to obtain financial services, and increased welfare from financial transactions. $H0_2$ is denied, whereas $H1_2$ is approved, so mobile money usage positively and significantly affects digital customer protection. $H0_3$ is denied, whereas $H1_3$ is approved, proven by the fact that digital customer protection positively and significantly affects financial inclusion. $H0_4$ is denied, whereas $H1_4$ is approved. Digital customer protection mediates the relationship between mobile money usage and financial inclusion

The procedure used in testing the causal relationship of this mediation model uses a four-step procedure from Baron and Kenny (1986) and a combination with the bootstrapping method (PROCESS) from Hayes (2004). The limitation of this research is that the study ignores Covariance-Based SEM; the sample collected is located in Yogyakarta Province with unique characteristics, namely people of productive age, so this limits the generalization of other populations who also use mobile money. Some data collection activities are carried out online, so there may be misperceptions among respondents.

Researchers give several recommendations that consist of theoretical and practical recommendations. First, for the theoretical recommendation, the research target in this study focuses on individuals of productive age in a region; additional research should be more precise based on other factors such as age categorization (young adult society, etc.) or people's income, among others. The second one is if

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