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DOES FINTECH LENDING AND ICT DEVELOPMENT INDEX AFFECT POVERTY? EVIDENCE FROM INDONESIA

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ABSTRACT

Purpose: *The purpose of this research is to see how FinTech Lending and ICT Development Index affect poverty in Indonesia. This study provides knowledge about the impact of FinTech Lending and the ICT Development Index on poverty reduction.*

Methodology/approach: *This study uses a quantitative approach and panel data regression analysis method. This study uses panel data consisting of 34 provinces in Indonesia with observations for 2019-2021. This study uses secondary data types obtained from official Indonesian government agencies (OJK and BPS).*

Findings: *The results of this study found that the FinTech Lending and ICT Development Index have a negative effect on poverty in Indonesia. This means that the growth of FinTech Lending and ICT can reduce poverty in Indonesia.*

Practical implications: *The results of this research can be considered by policymakers to support FinTech development and financial inclusion, as well as increase budget allocations for the acceleration and equity of ICT infrastructure development which in turn can help reduce poverty in Indonesia.*

Originality/value: *To the best of the researcher's knowledge, this study is the first study to link FinTech, ICT Development Index, and Poverty simultaneously in Indonesia.*

KEYWORDS: *Economic Growth; FinTech; ICT; Indonesia; Inflation; Poverty.*

ABSTRAK

Tujuan penelitian: Tujuan dari penelitian ini adalah untuk melihat bagaimana FinTech Lending dan ICT

Development Index mempengaruhi kemiskinan di Indonesia. Studi ini memberikan pengetahuan tentang dampak FinTech Lending dan ICT Development Index terhadap pengurangan kemiskinan.
Metode/pendekatan: Penelitian ini menggunakan pendekatan kuantitatif dan metode analisis regresi data panel. Penelitian ini menggunakan data panel yang terdiri dari 34 provinsi di Indonesia dengan observasi tahun 2019-2021. Penelitian ini menggunakan jenis data sekunder yang diperoleh dari lembaga resmi pemerintah Indonesia (OJK dan BPS).
Hasil: Hasil penelitian ini menemukan bahwa FinTech Lending dan ICT Development Index berpengaruh negatif terhadap kemiskinan di Indonesia. Artinya, pertumbuhan FinTech Lending dan ICT dapat mengurangi kemiskinan di Indonesia.
Implikasi praktik: Hasil penelitian tersebut dapat menjadi pertimbangan bagi pengambil kebijakan untuk mendukung pengembangan FinTech dan inklusi keuangan, serta meningkatkan alokasi anggaran untuk percepatan dan pemerataan pembangunan infrastruktur TIK yang pada akhirnya dapat membantu mengurangi kemiskinan di Indonesia.
Orisinalitas/kebaharuan: Sejauh pengetahuan peneliti, penelitian ini adalah penelitian pertama yang menghubungakan FinTech, ICT Development Indeks, dan Kemiskinan secara simultan di Indonesia
KATA KUNCI: FinTech; Indonesia; Inflasi; Kemiskinan; Pertumbuhan Ekonomi; TIK.

INTRODUCTION

This research investigates the relationship between the growth of FinTech and ICT infrastructure on poverty reduction in Indonesia. Poverty is the inability of people to meet their own needs (Silaban & Susiana, 2023). Poverty is one of the main problems experienced by developing countries (Ningsi & Putri, 2023). Indonesia, as a developing country, also faces problems of inequality and poverty (Alamanda, 2020). One of the biggest concerns of the Indonesian government at the moment is poverty to achieve social welfare (Fazil et al., 2023). The Indonesian government in 2024 has set extreme poverty with a target of zero (Regina & Nababan, 2022). According to Fazil et al. (2023), Indonesia's poverty tends to experience a downward trend but has not yet reached its target. Meanwhile, according to Soegoto et al. (2022), until the end of 2020, the category of poor people in Indonesia is still relatively high, namely around ten percent of the total population of Indonesia. According to Indonesian statistical data, it shows that as of September 2022, the percentage of poor people in Indonesia has almost reached ten percent, namely 9.57 percent (Badan Pusat Statistik, 2023). This means that the poverty rate in Indonesia is still far from the government's target of zero percent poverty.

According to the Poverty Trap Theory by Sachs (2005), the cause of poverty is that the poor do not have access to human capital, business capital, infrastructure, natural capital, institutional capital, and knowledge capital. Of the six factors, business capital can be analyzed using the FinTech approach, and infrastructure using the ICT Development Index approach.

ICT stands for Information, Communication, and Technology. Over time, the use of ICT has received great attention from various sectors (Dash et al., 2022). There is no doubt that the use of ICT makes many contributions to improving the socio-economic community (Kharisma et al., 2021; Vizo et al., 2021). Especially during the global COVID-19 pandemic, ICT is very important in the existing social order (Yang et al., 2020). In addition, ICT has been able to help residents carry out various activities from home with the help of applications (Rachmawati et al., 2021). In the era of COVID-19, ICT is integrated with various activities of human life, including in the field of education (Al-Kumaim et al., 2021; Espino-Díaz et al., 2020; Fatmawati & Al Ansi, 2021; Nisrine & Abdelwahed, 2021; Pozo et al., 2021; Rapanta et al., 2020; van der Spoel et al., 2020; Villegas-Ch et al., 2021). In addition, ICT is also integrated with health services (Arshad, 2020; Yang et al., 2020). Lastly, ICT is also integrated with financial services (Coffie et al., 2021). ICT that is integrated with financial services is called FinTech or Financial Technology (Bhatt et al., 2022; Hendrikse et al., 2018; Pradhan et al., 2021; Setyaningsih et al., 2019; Zhang & Kim, 2020). FinTech refers to the application of cutting-edge technology in financial services to give clients more user-friendly services and a simpler way to manage their finances than traditional methods (Anshari et al., 2019). This means that FinTech provides financial services that make it easier for consumers because they provide practical and efficient services. FinTech is a digital innovation and modern technology that aims to improve, develop and automate financial services (Al Hammadi & Nobanee, 2019). According to Setyowati et al. (2022), one of the factors causing poverty is limited access to finance or capital assistance for businesses. FinTech is believed to be a tool to support financial inclusion (Demir et al., 2022; Morgan, 2022; Senyo & Osabutey, 2020) and can ultimately overcome poverty and reduce income inequality (Appiah-Otoo & Song, 2021; Arner et al., 2020; Ashenafi & Dong, 2022; Chinoda & Mashamba, 2021; Demir et al., 2022; Lara Aba & Linardy, 2021). This shows that FinTech can play a role in overcoming poverty, so FinTech growth must be supported. According to Coffie et al. (2021), FinTech growth depends on ICT infrastructure so the better the growth of ICT infrastructure, the better the growth of FinTech will be. This shows that the growth of FinTech is influenced by the growth of ICT infrastructure and can ultimately affect the level of poverty.

Research investigating the relationship between FinTech and reducing poverty in Indonesia has been conducted by Fauzi & Rokhim (2022), but Fauzi & Rokhim (2022) only use per capita household consumption as a proxy for poverty. Yet according to the Indonesian Central Bureau of Statistics, the components used to calculate the poverty rate include per capita household consumption, clothing needs, and housing needs which are referred to as the Poverty Rate. This means that Fauzi & Rokhim (2022) cannot yet represent poverty with a broader dimension. Therefore, this study uses a more comprehensive poverty rate proxy, namely the Poverty Rate. In addition, this study adds ICT infrastructure development variables which are proxied by the ICT Development Index.

Although research investigating the relationship between FinTech and poverty has been carried out by several researchers (Appiah-Otoo & Song, 2021; Emara, 2022; Fauzi & Rokhim, 2022; Ye et al., 2022). However, research investigating the relationship between FinTech, ICT infrastructure, and poverty together has not been available to date. Yet

according to Kanga et al. (2022), advances in ICT infrastructure play a role in providing a platform to help spread FinTech, so that it can ultimately reduce poverty. Research with settings in Indonesia is limited to the relationship between FinTech and poverty (Fauzi & Rokhim, 2022; Hudaefi, 2020; Rahmi, 2022), FinTech and ICT infrastructure (Sartika et al., 2021) and ICT infrastructure with poverty (Regina & Nababan, 2022). However, research that discusses it as a whole has not yet existed in Indonesia. The Indonesian government in 2024 has set extreme poverty with a target of zero (Regina & Nababan, 2022). In addition, one of the main agendas of the Sustainable Development Goals is to end poverty in all its forms by 2030 (Appiah-Otoo & Song, 2021). On the other hand, until the end of 2020, the category of poor people in Indonesia is still relatively high, around ten percent of the total population of Indonesia (Soegoto et al., 2022). This means that further research is needed relating to factors that can reduce poverty in Indonesia. In addition, the development of ICT infrastructure in Indonesia has not reached equity. Based on data from the Indonesian Central Bureau of Statistics, it shows that only about 15 provinces in Indonesia have an ICT index above the national average, while the remaining 19 provinces are still below the national average (Badan Pusat Statistik, 2019, 2020). This means that Indonesia is still lagging behind in terms of ICT infrastructure so that it affects FinTech growth and ultimately affects the poverty rate. Therefore, research with a setting in Indonesia is suitable and necessary to find out the link between FinTech growth, ICT infrastructure and poverty.

FinTech stands for Financial Technology. According to the Financial Stability Board (2017), FinTech is an innovation by technology in financial services that can generate new business models, applications, processes, or products with material impacts related to the provision of financial services. According to some literature, it shows that FinTech can reduce poverty (Appiah-Otoo & Song, 2021; Emara, 2022; Ye et al., 2022). More clearly, research conducted by Appiah-Otoo & Song (2021) with a sample of 31 provinces in China from 2011 to 2017 shows that FinTech can reduce poverty in China. In addition, research by Emara (2022) with a sample of 45 Sub-Saharan African countries shows that wider access to FinTech has a statistically significant impact on poverty alleviation. Finally, research conducted by Ye et al. (2022) with a sample of 31 provinces in China from 2011 to 2020 shows that although the development of the FinTech index is not evenly distributed between provinces, FinTech can effectively reduce poverty in every province in China. In addition, according to several studies conducted by Ashenafi & Dong (2022), Chinoda & Mashamba (2021), Demir et al. (2022), and Lara Aba & Linardy (2021) show that FinTech can increase financial inclusion and reduce income inequality so that it can ultimately reduce poverty. In addition, The Poverty Trap Theory states that one of the factors causing poverty is the lack of access to business capital (Sachs, 2005). That is the better access to business capital, the less likely the transmission of poverty. One of the current access to business capital is FinTech Lending which can support financial inclusion. This indicates that FinTech Lending can reduce poverty. Based on the theory and the literature previously described, the hypothesis related to FinTech on poverty is as follows:

H1: FinTech can reduce poverty in Indonesia.

ICT stands for Information, Communication, and Technology. ICT can help reduce poverty in several ways, including through the use of ICT in MSMEs, financial technology and financial inclusion, and household consumption. More clearly, research conducted by Hanggraeni (2021) regarding the use of ICT in MSMEs in Indonesia shows that the use of ICT by MSME owners can reduce the number of poor people. According to Regina & Nababan (2022), digital use can help reduce poverty in several ways, including through

digital banking access such as e-banking, mobile banking, and mobile ATM, helping access information to wider network interaction. This means that digital use through FinTech can help reduce poverty. In addition, according to several studies, digital utilization, in this case, FinTech, can help reduce poverty through financial inclusion (Ashenafi & Dong, 2022; Chinoda & Mashamba, 2021; Demir et al., 2022; Lara Aba & Linardy, 2021). According to research by Hartwig & Nguyen (2023), ICT can reduce poverty by helping increase household absorption, thereby reducing consumption and ultimately preventing poverty. In addition, research conducted by Yang et al. (2021) on rural populations in China show the importance of ICT in this case the mobile Internet for multidimensional poverty reduction for rural households. In addition, the Poverty Trap Theory states that one of the factors causing poverty is the unavailability of access to infrastructure (Sachs, 2005). That is, the better the infrastructure, the lower the possibility of transmission of poverty. The ICT Development Index is one of the benchmarks for infrastructure development in the field of technology. This indicates that the better the ICT Development Index can reduce poverty. Based on the theory and the literature previously described, the hypotheses related to ICT infrastructure to poverty are as follows:

H2: ICT Development Index can reduce poverty in Indonesia.

METHOD

This study uses secondary data types obtained from official Indonesian government institutions. In more detail, FinTech Lending data is obtained from the official website of the Otoritas Jasa Keuangan with the link www.ojk.go.id. Meanwhile, the ICT Development Index data, Gross Regional Domestic Product (GDP) data, and Consumer Price Index (CPI) data were obtained from the official website of the Badan Pusat Statistik with the link www.bps.go.id. This research is in the form of panel data consisting of 34 provinces in Indonesia with observations for 2019-2021.

This study uses several variables as follows: (1) Poverty (POV); (2) Financial Technology (FinTech); (3) ICT Development Index (ICT). According to the Indonesian Central Bureau of Statistics (BPS), poverty is an economic inability to meet basic food and non-food needs as measured from the expenditure side. In addition, residents are categorized as poor if they have an average expenditure per capita per month below the poverty line. This study measures poverty by the Poverty Rate, which is the division between the number of people below the poverty line and the entire population in an area, then to get the percentage value, multiplication is done by one hundred. This measurement was chosen according to measurements made by the Central Bureau of Statistics (BPS) regarding poverty data.

FinTech is a technological innovation in the financial sector that no longer needs to use paper money or in other words convert the currency to digital so that it is more efficient (Abdillah, 2020; Hiyanti et al., 2020). This research uses FinTech data in the form of FinTech Lending. According to the Financial Services Authority (OJK), FinTech Lending is the provision of financial services to bring together lenders and loan recipients to enter into loan agreements in currencies directly through an electronic system using the internet network.

Based on the Central Bureau of Statistics (BPS), the ICT Development Index is an indicator to monitor the progress of ICT infrastructure development in a country or region towards an information society. The ICT Development Index is compiled based on eleven indicators which include three sub-indexes, namely access and infrastructure, internet usage, and internet usage expertise according to standards issued by the International

Telecommunication Union (ITU). This study uses ICT Development Index data released by the Central Bureau of Statistics (BPS).

Following the research by Appiah-Otoo & Song (2021), this study uses several control variables, including economic growth which is proxied by the Gross Domestic Regional Product (GDRP), and Inflation which is proxied by the Consumer Prices Index (CPI).

This study uses a quantitative approach and panel data regression analysis method. A series of tests were carried out for panel data analysis. In more detail, the Chow Test and Hausman Test are used to determine the best model. Furthermore, the simultaneous significance test (F) and the Coefficient of Determination Test (R^2) were used to test the goodness of the model. In addition, the partial significance test (t) is used to determine the effect of the independent variables on the dependent variable. Finally, Multicollinearity and Heteroscedasticity Tests are used to fulfill the classical assumptions.

This study uses the following analytical model:

$$POV_{it} = \beta_0 + \beta_1 logFINTECH_{it} + \beta_2 logICT_{it} + \beta_3 logPDRB_{it} + \beta_4 logCPI_{it} + \varepsilon_{it}$$

Where:

POV : Poverty level (%)

logFINTECH: Distribution of Financial Technology Lending Funds (Billion Rupiah)

logICT : ICT Development Index (Base Points)

logPDRB : Product Domestic Regional Bruto (Billion Rupiah)

logCPI : Consumer Price Index (Base Points)

β_0 : Intercept or Constant

$\beta_1\beta_2\beta_3\beta_4$: Independent Variable Regression Coefficient

ε : Error term

t : Time Series Annual (2019-2021)

i : Cross Section Province (34 Provinsi)

RESULT AND DISCUSSION

All variables in this study, namely the dependent variable (POV) and four independent variables (FinTech, ICT, GRDP, and CPI) have fulfilled the Normality Test. Table 1 shows descriptive statistics and correlation analysis. Based on the application of the sample selection criteria, the results show a balanced sample of 102 observations. Table 1 shows that the average POV value is 10.55 and the standard deviation is 5.46. In the fourth column, Table 1 shows the Pearson correlation coefficient and it can be seen that all variables have a correlation value lower than 0.90, which means that there is no multicollinearity between variables.

Before analysis, this research has regressed 2 different models, namely the model without control variables and the model with control variables. The results show that the relationship between FinTech and Poverty is not significant in the regression model with no control variables. Meanwhile, the regression model with control variables (GRDP and CPI) shows that the relationship between FinTech and Poverty is significant. This means that the most appropriate regression model is to include a control variable in line with research that has been conducted by Appiah-Otoo & Song (2021). In other words, the

control variables in the form of GRDP and CPI are very important in influencing the relationship between FinTech and Poverty.

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There are three models in panel data regression, namely Pooled Least Squares (PLS) or Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM). The Chow test and Hausman test were used to determine the best model in this study. Table 2 presents the results of the Chow Test and Hausman Test. Based on the probability value of the Chow Test 0.0000 <0.05, it means that the best model is the Fixed Effects Model (FEM). Hausman Test probability value 0.0063 <0.05 means the best model is the Fixed Effects Model (FEM). So that it can be concluded that the best modeling test results for panel data regression in this study are the Fixed Effects Model (FEM).

Table 3 presents the results of the Fixed Effects Model (FEM) panel data regression analysis used for hypothesis testing. Before testing the hypothesis and interpretation, it is necessary to test the goodness of the model (simultaneous significance test (F) and test the coefficient of determination (R^2)) as well as test the classical assumptions (multicollinearity test and heteroscedasticity test). Table 3 shows that the Prob(F-statistic) value is less than the 5 percent significance level (0.0000 <0.05). That is, the independent variables (FinTech, ICT, GRDP, and CPI) in this study simultaneously have a significant effect on the dependent variable (POV). Table 3 shows the Adjusted R-squared value of 0.9970. This means that the variation of the dependent variable (POV) can be explained by the independent variables (FinTech, ICT, GRDP, and CPI) of 99.70 percent, while the remaining 0.30 percent is influenced by other factors outside the model. In addition to the Pearson test, this study uses the Klein test to identify multicollinearity problems. Based on Table 4 shows the value of Adj. R-squared is greater than all Adj values. R-squared Auxiliary, meaning that there is no multicollinearity problem. This proves that based on the Pearson Test and the Klein Test, consistently show that there is no multicollinearity problem in this study. To identify the problem of heteroscedasticity in this study, the Glejser test was used. Table 5 shows the probability values of all independent variables greater than the 5 percent significance level (0.05), meaning that there are no signs of heteroscedasticity.

After fulfilling the Classical Assumption Test, the next is the Hypothesis Test. Table 3 shows the results of the Hypothesis Test. The table shows the probability value of the FinTech variable is smaller than the 5 percent significance level (0.0292 <0.05). The FinTech variable has a coefficient value of -0.1000, meaning that every 1 percent increase in the distribution of FinTech Lending funds will have an impact on reducing poverty by 0.001 percent. In addition, Table 3 also shows the probability value of the ICT variable is smaller than the 5 percent significance level (0.0375 <0.05). Table 3 shows that the ICT variable has a coefficient value of -2.8045, meaning that every 1 percent increase in ICT development will have an impact on reducing poverty by 0.028 percent. In addition, based

on Table 3 also shows that the control variables namely Economic Growth (GDP) and Inflation (CPI) have a significant effect on Poverty. In more detail, the increasing GRDP will further reduce poverty and the increasing CPI will further increase poverty.

Table 1. Descriptive statistics and co rrelation matrix

	N	Mean	SD	POV	FINTECH	ICT	PDRB	CPI
1. POV	102	10.55	5.46	1.00	-0.33	-0.63	-0.31	0.05
2. FINTECH	102	5.58	2.01	-0.33	1.00	0.49	0.82	0.13
3. ICT	102	1.70	0.14	-0.63	0.49	1.00	0.38	0.22
4. PDRB	102	11.99	1.14	-0.31	0.82	0.38	1.00	-0.05
5. CPI	102	4.65	0.02	0.05	0.13	0.22	-0.05	1.00

Table 2. Uji Chow dan Uji Hausman

	Test Summary	Prob.	Conclusion
Chow Test	Cross-section F	0.0000	models follow Fixed Effects
Hausman Test	Cross-section random	0.0063	models follow Fixed Effects

Table 3. Fixed Effects Model Regression Analysis Panel

Dependent Variable: POV			
Variable	**Coefficient**	**t-Statistic**	**Prob.**
(Constanta)	-34.3185	-1.9956	0.0502
logFINTECH	-0.1000	-2.2315	0.0292**
logICT	-2.8045	-2.1243	0.0375**
logPDRB	-2.4109	-1.9329	0.0577*
logCPI	17.0160	4.8824	0.0000***
Adjusted R-squared		0.9970	
F-statistic		916.4044	
Prob(F-statistic)		0.0000	
N		102	

Note(s): *Significant at the 10% level; **Significant at the 5% level; ***Significant at the 1% level

Table 4. Klein Test

Adj. R-squared		**Adj. R-squared Auxiliary**	
Adj. R-squared	0.9970	Adj. R-squared 2	0.7154
		Adj. R-squared 3	0.2380
		Adj. R-squared 4	0.6870
		Adj. R-squared 5	0.0878

Dependent Variable: ABS(RESID01)	
Variable	**Prob.**
C	0.7080
logFINTECH	0.8075
logICT	0.2033
logPDRB	0.1092
logCPI	0.6326

Table 5. Glejser test

This study found that the FinTech Lending and ICT Development Index have a negative effect on poverty in Indonesia. More clearly shows that the growth of FinTech Lending and ICT can reduce poverty in Indonesia. The results of this study support all the hypotheses that have been proposed in this study. The results of this study are in line with the research of Emara (2022), Fauzi & Rokhim (2022), and Ye et al. (2022) which shows that FinTech can help reduce poverty. Research by Emara (2022) set in the Sub-Saharan Africa (SSA) region shows that increased FinTech can initially reduce extreme levels of devastation, leading to a reduction in total poverty as a proportion of the population. In addition, research by Fauzi & Rokhim (2022) with settings in 34 provinces in Indonesia shows that FinTech lending has a positive impact on poverty alleviation. Lastly, research by Ye et al. (2022) with settings in 31 provinces in China, shows that although the development of the fintech index is not evenly distributed between provinces, FinTech is effective in reducing poverty in each province.

This research is also in line with the research of Alimi & Okunade (2020), Hartwig & Nguyen (2023), Mushtaq (2019), Regina & Nababan (2022) dan Olamide et al. (2022) which shows that ICT can help reduce poverty. Research by Alimi & Okunade (2020) in the setting of 27 Sub-Saharan African countries shows that ICT diffusion (represented by internet penetration (IP)) provides significant poverty reduction in the short term but has no impact on poverty reduction in the long term. Research by Hartwig & Nguyen (2023) in settings in Thailand and Vietnam shows that information and communication technology (ICT) infrastructure helps increase household absorption in the face of shocks and this capacity can prevent households from reducing consumption and falling into poverty. Research by Mushtaq (2019) in a setting of 62 countries shows that ICT diffusion can help reduce poverty. Research by Regina & Nababan (2022) in settings of 34 provinces in Indonesia shows that digitalization has a significant effect on reducing poverty. Lastly, research by Olamide et al. (2022) in a setting in the Southern Africa Development Community (SADC) region shows that ICT can help reduce poverty.

This study also proves that all proposed control variables are supported. More clearly, this study shows that economic growth has a negative effect on poverty in Indonesia. That is, economic growth can help reduce poverty in Indonesia. In addition, this study also shows that inflation has a positive effect on poverty in Indonesia. That is, the higher the inflation, the more poverty in Indonesia will increase. This finding is in line with the research of (Fauzi & Rokhim 2022; Olamide et al. 2022).

The results of this study statistically indicate that the growth of FinTech Lending and the development of the ICT Development Index can reduce poverty thereby supporting the Poverty Trap Theory. The Poverty Trap Theory explains six assets that the poor do not have, including access to business capital and access to infrastructure. The link between the results of this study and the Poverty Trap Theory is that the growth of FinTech Lending can increase access to capital for the poor through financial inclusion. In more detail,

FinTech Lending has the advantage of speed of access and ease of administrative requirements, so that the poor can get loans more quickly and easily which can be used for business capital which will ultimately increase their welfare. In addition, the ICT Development Index describes the development of technological infrastructure that can help the poor access digital services. Digital services that are currently related to various fields such as education, health, and business will ultimately help poor people become more prosperous. The development of the ICT Development Index will reduce differences in the use of technology in urban and rural areas.

CONCLUSION

This research investigates the relationship between the growth of FinTech and ICT infrastructure on poverty reduction in Indonesia. Research that investigates the relationship between FinTech and Poverty in Indonesia has been researched by Fauzi & Rokhim (2022), but poverty data is based only on per capita household consumption. Yet according to the Indonesian Central Bureau of Statistics, the components used to calculate the poverty rate include per capita household consumption, clothing needs, and housing needs which are referred to as the Poverty Rate. This means that research by Fauzi & Rokhim (2022) cannot yet represent poverty with a broader dimension. Therefore, this study uses a more comprehensive poverty rate proxy, namely the Poverty Rate. In addition, this study adds ICT infrastructure development variables which are proxied by the ICT Development Index.

This study investigates the relationship between FinTech Lending and the ICT Development Index on Poverty in 34 Indonesian provinces. This study uses observations for 2019-2021 according to data availability. The research results show that all the hypotheses proposed in this study are supported. In more detail, the hypothesis test shows that statistically, the relationship between FinTech Lending and Poverty has a negative and significant effect. This means that an increase in the distribution of funds through FinTech Lending can reduce poverty in Indonesia. Besides that, the hypothesis test shows that statistically, the relationship between the ICT Development Index and Poverty has a negative and significant effect. This means that increased ICT infrastructure development can reduce poverty in Indonesia. The results of hypothesis testing for all control variables are also supported. In more detail, the relationship between economic growth and inflation with poverty has a significant effect. In other words, economic growth has a negative effect on poverty, while inflation has a positive effect on poverty. That is, higher economic growth will reduce poverty, and higher inflation will increase poverty.

This research has contributed in several ways, first, theoretically, this research provides knowledge that FinTech Lending and the ICT Development Index can reduce poverty in Indonesia. Second, the results of the research can be considered by policymakers to support the development of FinTech and financial inclusion, as well as to increase budget allocations for the acceleration and equity of ICT infrastructure development which in turn can help reduce poverty in Indonesia.

This study has several limitations, including only analyzing observations for 2019-2021 due to data availability constraints beyond the control of the researcher. In addition, this study only uses two control variables (Economic Growth and Inflation) because other control variables such as trade openness and financial development do not have complete data. Therefore, further research can develop a longer observation period and use other control variables such as trade openness and financial development.

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