

Can the integration between Islamic social finance and Islamic commercial finance tackle poverty in Indonesia?

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Abstract

Purpose – This study aims to examine the effects of Islamic social finance, Islamic commercial finance, and the integration of Islamic social finance and Islamic commercial finance on poverty in Indonesia.

Methodology – Data in the form of time series from 2002 to 2021 were evaluated using the Error Correction Model (ECM) approach. This method describes both long and short-term effects of Islamic social finance, Islamic commercial finance, and integration of Islamic social finance and Islamic commercial finance on poverty.

Findings – The results show that Islamic social finance, Islamic commercial finance, and the integration between the two Islamic finance sectors have a significant negative effect on poverty rates in the long term. In the short term, the integration between Islamic social finance and Islamic commercial finance has a significant negative effect on the poverty rate, while Islamic social finance and Islamic commercial finance have a negative but not significant effect on the poverty rate.

Implication – This study recommends policymakers make rules regarding the implementation of collaborative efforts on institutions in the two Islamic finance sectors in the future.

Originality – Most of the studies that have been conducted have only focused on one sector of Islamic finance. In fact, the integration between Islamic social finance and Islamic commercial finance in Indonesia makes these two sectors of Islamic finance have the potential to reduce poverty higher than without integration.

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Introduction

Currently, most countries in the world are still facing the classic problem of poverty. Especially in developing countries such as Indonesia, poverty is a big challenge that has not been fully resolved. The good news is that the poverty rate for the last 20 years in Indonesia has shown a declining pattern. Based on data from the Indonesian Central Statistics Agency (BPS) (2022), although there has been an increase in recent years due to special phenomena, for example when the economic crisis occurred in the 2006-2008 period and the economic crisis caused by the COVID-19 pandemic in 2020, in general, the poverty rate in Indonesia has decreased in the last 2 decades.

Based on the data shown in Figure 1, the poverty rate in Indonesia has declined by almost half compared to the 2002 period. The increase of poverty in Indonesia only occurred in 2006, 2015, and 2020, while in other years, the poverty rates showed a decline over the last 20 years.

Nevertheless, the poverty rate needs to be reduced to as small as possible and close to 0% so that national income could be more equally distributed and people's welfare can be realized.



Source: (BPS, 2022), processed

Figure 1. Poverty Rate in Indonesia 2002-2021

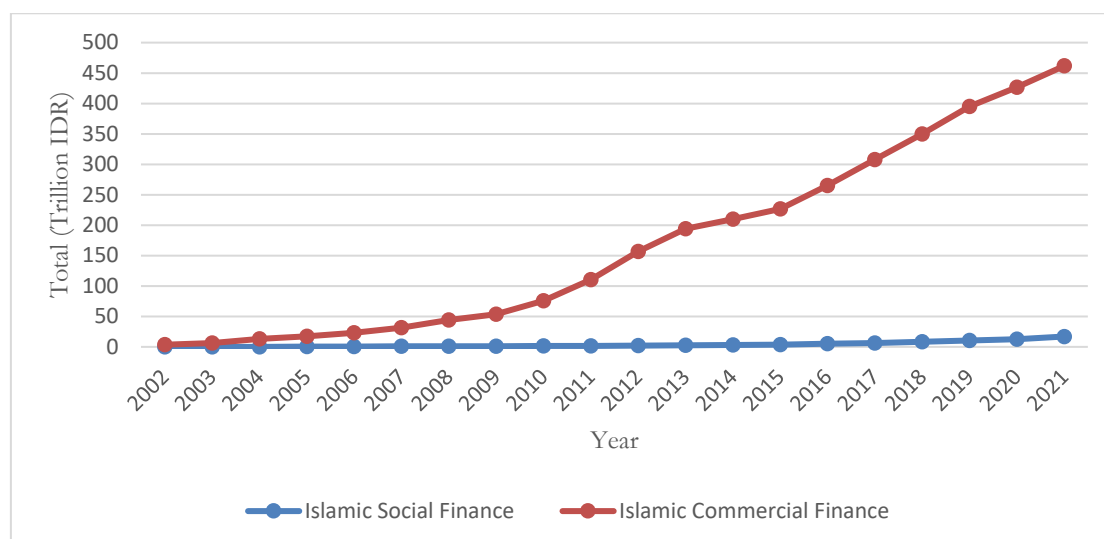
There are many financial schemes to combat poverty as found in previous studies, for example by encouraging the investment climate (Shamim et al., 2014), activating productive conventional financing (Ho & Odhiambo, 2011), increasing Gross Domestic Product (GDP) (Hassan, 2015), disbursing large government spending to meet community needs (Anderson et al., 2018). However, in addition to conventional financial schemes, Indonesia also has a large potential for Islamic finance that can be maximized to overcome various community problems, including poverty. This is inseparable from the large Muslim population in Indonesia. According to the Global Islamic Finance Report 2021, Indonesia ranks first as the country with the strongest Islamic finance in the world. The Indonesian Islamic social finance sector is the dominant factor because it is considered the most dynamic in the world (Cambridge Global Islamic Finance Report, 2021).

In general, Islamic finance can be divided into two sectors, namely Islamic social finance and Islamic commercial finance. Islamic social finance can come from zakat, infaq, sadaqah (ZIS), and waqf funds (Nuriyah & Fakhri, 2022). Meanwhile, Islamic commercial finance comes from sharia banking products such as sharia financing or sharia investment products such as Sukuk. Based on data from the National Amil Zakat Agency (BAZNAS) and the Financial Services Authority (OJK), in the last 2 decades, these two Islamic finance sectors have continued to show an increase every year.

Based on the data in Figure 2, it can be seen that the development of Islamic finance always increases every year. Islamic social finance originating from ZIS recorded an increase of 257% over 2 decades, where in 2002, the amount of ZIS collected was only IDR 68 billion, but the value increased to IDR 17 trillion in 2021. A significant increase also occurred in Islamic commercial finance come from the combination of Islamic financing and Sukuk. There are increased by 124% and 198%, respectively, compared to 20 years ago. From Figure 2, Islamic commercial finance has a larger number than Islamic social finance, but Islamic social finance wins in terms of value growth.

Taking into account the rapid development of Islamic finance in Indonesia, this instrument can be another alternative to support the needs and increase community productivity so that people's incomes can be increased which in turn can reduce poverty. Previous research has studied the role of Islamic finance in poverty alleviation. For example, research by Abdelbaki (2013) analyzes the role of zakat as a representation of Islamic social finance in increasing consumption

and reducing poverty in Bahrain. In other countries, such as Tunisia and Pakistan, research by Bouanani & Belhadj (2020) and Zafar et al. (2021) explores how zakat contributes to alleviation in these two countries. Meanwhile, research on the effect of ZIS on poverty alleviation has also been carried out in Indonesia by Athoillah (2018) and Choiriyah et al. (2020) who investigate the role of zakat in reducing poverty in Java and Indonesia. Islamic commercial finance such as Islamic banking financing and Sukuk have also been investigated for their effect on poverty. For example, research by Rifa'i et al. (2019); Tohirin & Husaini (2019); Siddique et al. (2020); and Mayis et al. (2021) examines the impact of Islamic financing on poverty using panel data and Azman (2016) analyze the role of Sukuk as Islamic investment instruments that can reduce poverty.



Source: (BAZNAS, 2022) and (OJK, Statistik Perbankan Syariah 2002-2021, 2022), processed

Figure 2. Development of Indonesian Islamic Finance 2002-2021

We can easily find research examining the effect of Islamic social finance or Islamic commercial finance on poverty alleviation using various approaches. However, research examining the effect of integration between the two Islamic finance sectors is still limited. Most of the research was conducted by focusing on one of the Islamic finance sectors to examine its effect on poverty. Iskandar et al. (2021) and Widodo (2019) investigated the effect of the integration of Islamic social finance and Islamic commercial finance on reducing poverty and income inequality. However, in this study, the proxy variable used to measure Islamic commercial finance is only sourced from Islamic financing, while Sukuk is not used. Actually, Sukuk can be an alternative in reducing poverty because through sharia investment schemes, many new companies will open businesses so that employment can be expanded which in turn can increase people's income and reduce the number of poor people. Especially, Sukuk or sharia investment is an investment funding instrument that is currently a trend in Indonesia. This is evidenced by the accumulated value of its investment which has increased rapidly in recent years. Therefore, this study aims to fill the existing research gap, namely by examining the effect of Islamic social finance as measured by the combination of ZIS and Islamic commercial finance represented by a combination of Islamic financing and Sukuk, both separately and integrated.

Literature Review

Poverty and Islamic Finance

Poverty occurs when the income of the population is below the minimum income line set by the government (Goulden & D'Arcy, 2014). Low incomes make it difficult for people to access basic needs such as food, shelter, health, and education. As a result, the standard of living quality decreases, and the welfare of the community is difficult to achieve. In addition, high levels of poverty can also hinder the process of economic development. This happens because the ability

of the community to produce or consume goods or services that are indicators of economic development is not the same so many people do not participate in the process of economic development (Hagenaars, 2017).

The main cause of poverty in developing countries is market failure which often prevents the poor from borrowing money to meet their short and long-term needs (Rewilak, 2017). To overcome these obstacles, the development of the financial sector is an important aspect that must be promoted to overcome poverty. With the development of the financial sector, the poor can access formal financial services, especially credit (Jeanneney & Kpodar, 2011). In addition, the existence of the financial sector also plays a role in increasing the productivity of the poor, increasing their assets, and increasing the potential for sustainable livelihoods. Furthermore, the financial sector indirectly has an impact on increasing the quality of life of the poor through economic growth (Samargandi et al., 2015).

In Indonesia, apart from being familiar with conventional finance, the Islamic finance sector has also developed very rapidly in the last few decades. Islamic finance is a financial sector that is guided by Islamic principles and laws sourced from the Qur'an and Hadith (Nastiti & Kasri, 2019). The Islamic finance sector is a financial supporter of the state to fight poverty. Generally, Islamic finance is divided into two, namely Islamic social finance and Islamic commercial finance.

Islamic social finance is part of Islamic finance where the allocation of funds originating from the community is used for social-environmental interests and in carrying out the scheme remains based on sharia principles and law (Azman, 2016). Islamic social finance can come from the allocation of zakat, infaq, sadaqah, and waqf funds (ZISWAF) issued by the community for the social interests of the people as instructed in Islam. The command to ZISWAF in Islam has the benefit of equalizing income inequality between the rich and the poor (Kuanova et al., 2021). People with higher incomes can help people with lower incomes through the distribution and utilization of ZISWAF funds so that poverty can be reduced. ZIS funds can also be used for the productive sector so that the poor can use them to build businesses so that their income can increase (Zafar et al., 2021).

Meanwhile, Islamic commercial finance is Islamic finance that aims to provide financial services to the public to seek commercial benefits but in practice, it is still based on sharia law (Sakinah et al., 2022). One of the Islamic finance laws that differ from conventional finance is the law regarding interest, where Islam does not allow to set interest in financial schemes such as financing or investment. Therefore, in Islam, it is known that Islamic financing and sharia investment (Sukuk) are the sources of Islamic commercial finance. With sharia financing, the poor can borrow funds without interest for productive businesses so that their income can increase so that in the end poverty can be reduced (Himmawan & Firdausi, 2021). Meanwhile, the sharia investment scheme (Sukuk) is considered capable of contributing more to creating jobs in many sectors. With more people or the private sector investing in the sharia sector, more business actors will open businesses so that they can open up wider job opportunities which in turn can reduce poverty and reduce unemployment (Sakinah et al., 2022).

Previous Studies

Studies on the relationship between social finance and Islamic commercial finance with poverty rates have been carried out in many countries, including Indonesia. For example, research by Abdelbaki (2013); Bouanani & Belhadj (2020); Athoillah (2018); Choiriyah et al. (2020); Zafar, et al. (2021); Rifa'i et al. (2019); Tohirin & Husaini (2019); Siddique et al. (2020); Mayis et al. (2021); Azman (2016); Iskandar et al. (2021); and Widodo (2019). Most previous studies prove the great role of Islamic social and commercial finance in alleviating poverty in many countries. In addition, most studies are conducted by focusing on one sector of Islamic finance and using a variety of research approaches.

Abdelbaki (2013) concluded that Islamic social finance in the form of zakat was able to increase public consumption and reduce poverty by 0.7% in Bahrain from 1990 to 2010. In Tunisia, Bouanani & Belhadj (2020) found that zakat was able to reduce poverty by 52%. Meanwhile, using

panel data from 34 provinces in Indonesia from 2017 to 2018, Choiriyah et al. (2020) found that zakat plays a major role in reducing poverty in Indonesia. The same result was also obtained by Athoillah (2018) who used panel data from all provinces on Java Island from 2001 to 2012 where his findings stated that if zakat increased by 1%, the number of poor people in Java decreased by 0.031%. In another study, using time series data from the Q1 of 1994 to the Q4 of 2018, Zafar et al. (2021) proved that zakat was able to reduce the poverty rates in Pakistan in the long term by 0.08%, but in the short term, it did not affect poverty. Iskandar et al. (2021) that in the short and long term, Islamic social finance is able can poverty and equalizes income inequality.

Research on the relationship between Islamic commercial finance and poverty has also been carried out. Siddique et al. (2020) analyzed the role of Islamic commercial finance as measured by Islamic banking financing on poverty using panel data in Pakistan from 2004 to 2017. The results prove that Islamic banking financing can reduce poverty in the country. Meanwhile, using panel data in 32 provinces in Indonesia from 2014 to 2018, Rifa'i et al. (2019) found that Islamic commercial financing as measured by productive working capital financing of Islamic banks proved effective in reducing poverty in Indonesia. In another study, using panel data from Q1 of 2014 to Q2 of 2018, Tohirin & Husaini (2019) found that Islamic commercial financing as measured by Islamic banking financing contributed more to reducing poverty in 6 Islamic countries in the world compared to conventional banking financing. Meanwhile, Azman (2016) found that Islamic commercial finance such as the Sukuk instrument could be a solution to overcome poverty in Malaysia. The same result was also found by Mayis et al. (2021) who proved that both in the long and short term, the influence of Islamic commercial finance as measured by Islamic banking financing is greater in reducing poverty than conventional banking financing.

Meanwhile, research on the integration of Islamic social finance with Islamic commercial finance on poverty was conducted by Iskandar et al. (2021) and Widodo (2019). Using time-series data from 2002 to 2019 in Indonesia, Iskandar et al. (2021) concluded that in the long and short term, poverty can be reduced significantly if there is integration between Islamic social finance and Islamic commercial finance. In this study, Islamic social finance was measured using the total of ZIS, while Islamic commercial finance was measured using Islamic finance contracts such as *murabahah*, *mudārabah*, *qard*, *ijārah*, and working capital schemes for Micro, Small, and Medium Enterprises (MSMEs). The same result was also found by Widodo (2019) who stated that in the long and short term income inequality between the rich and the poor could be reduced if the two Islamic finance sectors could be integrated. Islamic social finance was measured using the total *zakat* collection while Islamic banking financing was used to measure Islamic commercial finance.

Hypotheses

Based on the theory Islamic finance sector which is one of the financial sectors that has the potential to reduce poverty, as well as evidenced by various previous studies, this study develops three research hypotheses as follows:

H₁: Islamic social finance has a negative and significant effect on poverty.

H₂: Islamic commercial finance has a negative significant effect on poverty.

H₃: The integration of Islamic social finance and Islamic commercial finance has a negative and significant effect on poverty.

Research Methods

This study uses annual time series data in Indonesia for 20 years from 2002 to 2021. The data sources are secondary data obtained from the Central Statistics Agency (BPS), the Financial Services Authority (OJK), and the National Amil Zakat Agency (BAZNAS). This study utilizes the Error Correction Model (ECM) method to analyze the effect of independent variables on the dependent variable both in the short and long term. This method was chosen because the data in this research is not stationary at the level, but is stationary at 1st different and/or 2nd different, and has a cointegration or long-term relationship (See Tables 2 and 3). The ECM method is

tasked with overcoming the non-stationary regression equation at the level so that it can be corrected back to equilibrium in the long run.

The dependent variable in this study is poverty, while the independent variables consist of Islamic social finance, Islamic commercial finance, and the integration between Islamic social finance and Islamic commercial finance. Based on previous research namely Sulaeman et al. (2021), several other independent variables can affect the poverty rates, including unemployment, population growth, and inflation. Thus, these three variables were also used in this study. Explanation and measurement of all variables are summarized in the following table.

Table 1. Summary of Operational Variables

Type of Variable	Name (Symbol)	Variable Definition	Hypothesis	Source of Data
Dependent	Poverty (POV)	Percentage of population whose spending rate of less than USD 60 per month	-	Annually Published Reports from the Central Statistics Agency (BPS)
Independent	Islamic finance variables			
	Islamic Social Finance (LNISF)	Natural logarithm of the total of zakat, infaq, and sadaqah (ZIS)	LNISF (-)	Annually Published Reports from the National Amil Zakat Agency
	Islamic Commercial Finance (LNICF)	Natural logarithm of the total of Islamic banking financing and outstanding value of Sukuk	LNICF (-)	Annually Published Reports from the Financial Services Authority
	Integration of Islam Social Finance and Islamic Commercial Finance (LNISF*IC)	Natural logarithm of the total of ZIS, Islamic banking financing, and outstanding value of Sukuk	LNISF*ICF (-)	Annually Published Reports from the National Amil Zakat Agency and the Financial Services Authority
	Macroeconomics variables			
	Unemployment (UNEMP)	Unemployment rate (%)	UNEMP (+)	
	Population Growth (POP)	Population growth rate (%)	POP (+)	Annually Published Report from BPS
Inflation (INF)	Inflation rate (%)	INF (+)		

Sources: Secondary data processed, 2022

This study aims to examine separately the effect of ISF, ICF, and integration between the two (ISF*ICF) on poverty both in the long and short term. Therefore, these three regression equation models have been formed as used in the research of Iskandar et al. (2021) and Widodo (2019). Based on these studies, a three-equation regression model that estimates the long-term relationship between the effects of ISF, ICF, and ISF*ICF on poverty is as follows:

$$POV = \alpha + \beta_1 \text{LN}(\text{ISF})_t + \beta_2 \text{UNEMP}_t + \beta_3 \text{POP}_t + \beta_4 \text{INF}_t + e_t \quad (1)$$

$$POV = \alpha + \beta_1 \text{LN}(\text{ICF})_t + \beta_2 \text{UNEMP}_t + \beta_3 \text{POP}_t + \beta_4 \text{INF}_t + e_t \quad (2)$$

$$POV = \alpha + \beta_1 \text{LN}(\text{ISF*ICF})_t + \beta_2 \text{UNEMP}_t + \beta_3 \text{POP}_t + \beta_4 \text{INF}_t + e_t \quad (3)$$

In addition, because this study uses the Error Correction Model (ECM) method, short-term estimates are needed according to the research by (Sakinah et al., 2022). The short-term estimates of the three research models are explained as follows:

$$D[\text{POV}] = \alpha + \beta_1 D[\text{LN}(\text{ISF})]_t + \beta_2 D[\text{UNEMP}]_t + \beta_3 D[\text{POP}]_t + \beta_4 D[\text{INF}]_t + e_t \quad (4)$$

$$D[\text{POV}] = \alpha + \beta_1 D[\text{LN}(\text{ICF})]_t + \beta_2 D[\text{UNEMP}]_t + \beta_3 D[\text{POP}]_t + \beta_4 D[\text{INF}]_t + e_t \quad (5)$$

$$D[\text{POV}] = \alpha + \beta_1 D[\text{LN}(\text{ISF} * \text{ICF})]_t + \beta_2 D[\text{UNEMP}]_t + \beta_3 D[\text{POP}]_t + \beta_4 D[\text{INF}]_t + e_t \quad (6)$$

Before testing the long-term and short-term estimates, all variables were first checked for statistical significance at the level, 1st difference, and 2nd difference using the Unit Root Test. After that, each model must pass the Johansen test to check whether there is cointegration between each model formed. If the data is stationary at the 1st difference, or 2nd difference and there is cointegration, the Error Correction Model (ECM) method is the appropriate method to be applied to the model.

Results and Discussion

Unit Root Test Results

The unit root test aims to check the stationarity of the data on each variable. In the regression model with time-series data sources, the data must be stationary so that it does not produce a spurious regression. Stationary data is data that has a constant average and variance and tends not to have a sharp increase or decrease in the data (Gujarati, 2011). The unit root test is carried out at three levels, namely level, 1st difference, and 2nd difference. If the data level is not stationary, then it is carried out at the 1st difference and so on. In this study, the unit root test was carried out using the Individual Fisher-ADF method where the data was said to be stationary if the probability value was less than 0.05.

Table 2. Unit Root Test Results

Series	Prob.	Lag	Max Lag	Obs
D[POV,2]	0.0001	0	0	17
D[LN(ISF),2]	0.0000	0	3	17
D[LN(ICF),2]	0.0010	0	3	17
D[LN(ISF*ICF),2]	0.0003	0	3	17
D[UNEMP,2]	0.0000	0	3	17
D[POP,2]	0.0003	1	3	16
D[INF,2]	0.0000	1	3	16

Source: Secondary data processed, 2022

Based on the results of the unit root test above, all research variables are not stationary at the level and 1st difference because most of the variables have a probability value of more than 0.05. At the 2nd difference, all variables have a probability value of less than 0.05 so it can be said that the data is stationary at the 2nd difference.

Cointegration Test Results

The cointegration test is used to see the extent of the long-term relationship between the economic variables used in the model. In this study, the cointegration test for each model is carried out using the Johansen System Cointegration Test method where the probability value on the Unrestricted Cointegration Rank Test (Trace) is less than 0.05, then there is cointegration between the variables used in the model.

Table 3. Cointegration Test Results

Model	Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob**
Model 1	None*	0.896345	131.4523	69.81889	0.0000
Model 2	None*	0.965259	127.1412	69.81889	0.0000
Model 3	None*	0.930645	138.5018	69.81889	0.0000

Source: Secondary data processed, 2022

Based on the cointegration test results in the table above, the probability values in the three models show a value of less than 0.05. That is, each variable in the entire model has a cointegration or long-term relationship. Therefore, because the data is stationary at the 2nd difference level and has cointegration, the appropriate method to assess the effect of the independent variable on the dependent variable in both the long and short term is ECM.

The Result of Long-Term ECM Regression Estimation

In the ECM method, regression estimation is carried out in the long term and short term. To see the effect of the independent variable on the dependent variable in the long term, the probability value becomes a reference. In this study, the reference value of probability uses a level of 1%, 5%, or 10% where if the probability value of the independent variable is less than the established research confidence level, the independent variable affects the dependent variable in the long term. Meanwhile, the coefficient value becomes a reference to see how much the direction and magnitude of the influence of the independent variable on the dependent variable in the long term.

Table 4. Long-Term ECM Regression Estimation Result

	Model 1 (Prob/Coef.)	Model 2 (Prob/Coef.)	Model 3 (Prob/Coef.)
C	0.0020***(0.406533)	0.0002***(0.499312)	0.0005***(0.297438)
LN(ISF)	0.0007***(-0.027001)	-	-
LN(ICF)	-	0.0001***(-0.030967)	-
LN(ISF*ICF)	-	-	0.0001***(-0.001232)
UNEMP	0.0096***(0.712969)	0.0069***(0.643226)	0.0167**(0.590126)
POP	0.8750(0.267611)	0.2917(1.387345)	0.9128(0.159708)
INF	0.4776(-0.046632)	0.3720(-0.050968)	0.4218(-0.046559)
Adjusted-R ²	0.937499	0.952968	0.951430
Prob. (F-Stat)	0.0000***(72.24836)	0.0000***(97.24483)	0.00000***(94.04705)

Dependent: POV ***p < 0.01 **p < 0.05 *p < 0.1 C: Constant

Source: Secondary data processed, 2022

Based on the estimation results of the long-term ECM regression in Model 1, it is known that the probability value for the Islamic Social Finance (LNISF) variable is $0.0007 < 0.01$ and the coefficient value is -0.027001 . This shows that in the long term ISF has a significant negative effect on poverty in Indonesia, and H1 is accepted. In other words, if the ISF increases by 1%, then in the long term the poverty rates in Indonesia will decrease by 0.27001%. While the probability value on the UNEMP variable shows the number $0.0096 < 0.05$ with a regression coefficient of 0.712969, which means that the unemployment rate has a positive and significant effect on poverty. When unemployment increases by 1%, poverty also increases by 7.12969%. Meanwhile, other variables, namely POP and INF, the probability of two variables show numbers greater than 1%, 5%, or 10% so these two variables do not have a significant effect on poverty. Adjusted-R² shows a value of 0.937499 which means that all variables used in the research model can explain the poverty variable of 93.7499%. The probability value of 0.0000 with F-statistic of 72,24836 means that all variables in Model 1 have a significant effect on poverty. The constant value of 0.406533 indicates that if the LNISF, UNEMP, POP, and INF variables = 0, then in the long term poverty is 0.406533.

In Model 2, the probability value of the Islamic Commercial Finance (LNICF) is $0.0001 < 0.01$ and the coefficient value shows -0.030967 , so the LNICF variable has a significant negative effect on poverty in the long term and H2 is accepted. In the long term, if the ICF increases by 1%, it will have an impact on reducing the poverty rates in Indonesia by 0.30967%. A constant of 0.499312 means that if all independent variables in Model 2 are 0, then poverty is 0.499312. In Model 2, the probability value of the UNEMP variable is $0.0069 < 0.01$ with a regression coefficient of 0.643226 which means that unemployment has a positive and significant effect on poverty in the long term. Meanwhile, the probability in the other two independent

variables, namely POP and INF, shows a number greater than 1%, 5%, or 10% so these two variables have no effect on poverty in the long term. As much as 95.2968% of all independent variables in Model 2 can explain poverty. Meanwhile, when viewed from the probability and F-statistics values in Model 2, all independent variables affect the poverty variable if tested together.

The same results are also shown in Model 3. The probability value of the integration variable of Islamic Social Finance and Islamic Commercial Finance (LNISF*ICF) shows a number of 0.0001 or less than 1%, while the coefficient value shows -0.001232. This indicates that in the long term the LNISF*ICF has a significant negative effect on poverty in Indonesia, and H3 is accepted. Furthermore, if the LNISF*ICF value increases by 1%, then in the long term poverty will decrease by 0.01232%. Meanwhile, the probability of another independent variable, namely UNEMP, shows a number of $0.0167 < 5\%$ with a regression coefficient of 0.590126 which means that the unemployment variable has a positive and significant effect on poverty in the long term. Meanwhile, in Model 3, two other independent variables, namely POP and INF, show numbers greater than 1%, 5%, or 10% that these two variables do not affect the poverty variable. The constant shows the number 0.297438, meaning that if all the independent variables in Model 3 = 0, then poverty = 0.297438. As much as 95.1430% of all independent variables can explain the poverty variable in Model 3, while if it is seen from the probability value (F-statistics), all independent variables have a significant effect on poverty if tested together.

The Result of Short-Term ECM Regression Estimation

In the short-term ECM method, each variable used in the three models will be seen to change, so that it can be seen whether the independent variable can influence the poverty variable in a short time. If the probability value for each independent variable is less than 1%, 5%, or 10%, then the variable has a significant effect on poverty. Meanwhile, to see the direction and magnitude of the influence of the independent variables on the poverty variable, the coefficient value for each variable becomes a reference.

Table 5. Short-Term ECM Regression Estimation Result

	Model 1 (Prob/Coef.)	Model 2 (Prob/Coef.)	Model 3 (Prob/Coef.)
C	0.4237(-0.003071)	0.5472(-0.001832)	0.8066(0.000944)
D[LN(ISF)]	0.6191(-0.012950)	-	-
D[LN(ICF)]	-	0.2550(-0.025430)	-
D[LN(ISF*ICF)]	-	-	0.0920*(-0.001811)
D[UNEMP]	0.5474(0.164611)	0.4697(0.191315)	0.5240(0.160913)
D[POP]	0.5113(-1.219428)	0.6065(-0.928046)	0.6808(-0.714202)
D[INF]	0.2162(-0.053318)	0.1107(-0.062185)	0.2323(-0.045356)
Adjusted-R ²	0.071609	0.140930	0.209914
Prob. (F-Stat)	0.301476(1.347097)	0.197560(1.738223)	0.092384*(2.395582)

Dependen: D[POV] ***p < 0.01 **p < 0.05 *p < 0.1 C: Constant

Source: Secondary data processed, 2022

The results of the short-term regression estimation in Model 1 show the probability value of the Islamic Social Finance D[LN(ISF)] variable of $0.6191 > 1\%$, 5%, and 10% with a coefficient of -0.012950. This is a sign that although in the short term, changes in ISF have a negative effect on poverty but the effect is not significant, so H1 is rejected. Meanwhile, the other three independent variables, namely UNEMP, POP, and INF, also did not show any effect on poverty because the probability values of the three variables were greater than 1%, 5%, or 10%. The constant in Model 1 shows a number of -0.003071, which means that if the value of all independent variables in Model 1 = 0, then poverty is -0.003071. Based on the value of Adjusted R², all independent variables used in Model 1 are only able to explain poverty by 7.1609%. Meanwhile, if looked at the probability value (F-statistics), all independent variables in Model 1 have no significant effect on poverty when tested together because the probability value is greater than the research confidence level.

The probability value of the Islamic Commercial Finance change variable $D[\text{LN}(\text{ICF})]$ in Model 2 shows the number 0.2550 or greater than the research confidence level, while the coefficient value shows the number -0.025430. Thus, although in the short term changes in ICF have a negative effect on poverty but the effect is not significant, so H2 is rejected. The probability values for the UNEMP, POP, and INF variables in Model 2 also show a number greater than the research confidence level, so that in the short term these three variables do not affect poverty. In Model 2, the constant value is -0.001832, which means that if all changes in the independent variables in Model 2 are 0, then poverty is -0.001832. Another result found that 14.0930% of the independent variables in Model 2 were able to explain the variable of poverty. The probability value (f-statistics) in Model 2 shows a number greater than 10% so that when tested together, all independent variables in Model 2 have no significant effect on poverty in the short term.

In Model 3, the probability value of the change in integration between ISF and ICF $D[\text{LN}(\text{ISF}*\text{ICF})]$ shows a number of 0.0920 or less than 10%, while the coefficient shows a value of -0.001811. This is a sign that in the short term, this variable has a significant negative effect on poverty, so H3 is accepted. If $D[\text{LN}(\text{ISF}*\text{ICF})]$ increases by 1%, then in the short term it can reduce poverty by 0.01811%. The probability values of UNEMP, POP, and INF variables in Model 3 show a number greater than the research confidence level so that in the short term these three variables have no significant effect on poverty. All independent variables in Model 3 can explain poverty by 20.9914%, meanwhile, the probability value (F-statistics) of 0.092384 < 10% indicates that in the short term all independent variables have a significant effect on poverty when tested together.

Discussion

The results show that in the long term, Islamic social finance as measured by the collection of total ZIS has a significant and negative effect on poverty. According to Kuanova et al. (2021), Islamic social finance such as ZIS has the benefit of equalizing income inequality between the rich and the poor. In this research, the value of ZIS is large and always increases over a long period so that it can be allocated to reduce poverty. In addition, ZIS funds can also be used for the productive sector Zafaf et al. (2021). Based on the puskasbaznas.com page, BAZNAS as an institution that manages ZIS funds also distributes ZIS funds to *mustabiq* for productive sectors to provide long-term benefits. ZIS funds are also used for investment in productive capital programs coupled with training programs and business assistance for *mustabiq*. The distribution of ZIS funds in the economic sector is also carried out comprehensively, which includes the *mustahik* business capital program, creative economy, farming business empowerment, village market revitalization, and empowerment of land and sea fisheries businesses, as well as other programs to support the welfare of *mustabiq* (BAZNAS, 2022). With the ZIS distribution scheme to the productive sector, in the long term *mustabiq*'s income will increase and ultimately reduce the number of poor people. This finding is in line with previous research such as Abdelbaki (2013); Bouanani & Belhadj (2020); Choiriyah et al. (2020); Athoillah (2018); and Zafar et al. (2021).

Different results were obtained in the short-term model where changes in the ZIS value had a negative effect on poverty rates, but the effect was not significant. This is because even though the ZIS value always increases every year, the increase is not consistent. For example, in 2005, ZIS increased by 96.9% from the previous year, but 10 years later, the ZIS increase was only 10.61% from the previous year. This inconsistent change in the increase in ZIS indicates that from year to year the potential for ZIS is not maximally absorbed, even though the number of poor people is always increasing. In addition, in the short term, most of the ZIS funds are also allocated to basic consumptive fulfillment such as food so that changes in the ZIS value do not directly reduce poverty rates in a short period of time.

The ICF as measured by Islamic banking finance and Sukuk has succeeded in reducing poverty rates in Indonesia in the long term. The value of Islamic banking financing and Sukuk in Indonesia always increases over a long period of time so that it can be an alternative financial

scheme other than conventional finance. Based on (Himmawan & Firdausi, 2021), The poor can borrow funds from Islamic banking financing schemes to build businesses. In this case, the poor have succeeded in utilizing sharia financing schemes for business capital purposes so that their income has increased which in turn reduces the number of poor people in the long term. In addition, with the increasing value of sharia investment or Sukuk, the greater the number of workers needed to build investment projects. Sakinah et al. (2022) stated that Sukuk is considered capable of contributing more to creating jobs in many sectors. In practice, State Sharia Securities (SBSN) have been issued to finance infrastructure projects, namely project financing Sukuk. Total project financing for Sukuk from 2013 to 2020 was recorded at IDR 175.37 trillion, with 4,246 projects in 34 provinces (OJK, 2022). This has an impact on the expansion of employment opportunities so that in the long term unemployment and poverty will decrease. In addition, most of the SBSN funds are also allocated for the development of infrastructure projects that will benefit the community in the long term. For example, the construction of the Youtefa bridge in Jayapura, Papua, the construction of the Tomia and Winongko crossing ports, the construction of the National Road Region II in East Kalimantan (Sambera-Santan-Bontang-Sangatta), the construction of the Tukat Mati dam, and many others. The infrastructure development as a result of this Sukuk scheme makes it easier for the community to be more productive in producing goods or services so that in the long term economic growth and equity increase, which in turn reduces poverty. This research supports previous studies such as Siddique et al. (2020); Rifa'i et al. (2019); Tohirin & Husaini (2019); and Mayis et al. (2021).

Another result shows that in the short term, ICF has a negative but not significant effect on poverty. Similar to the ISF, changes in the value of the ICF in the short term also show inconsistencies. For example, in 2004, the increase in the value of sharia financing and Sukuk reached 105% from the previous year, but in 2014, the increase was only 7.7%. Another reason is that in the short term, people tend to use Islamic banking financing such as consumptive financing schemes, *ijarah*, and *Murabaha* to meet basic living needs. As a result, in the short term, Islamic financing does not directly reduce the number of poor people. In addition, the benefits derived from infrastructure through sharia investment financing in the form of Sukuk also cannot be felt directly by the public in the short term. For example, in the development of the MSME ecosystem in tourist attractions in order to increase MSME income and alleviate poverty, it does not only require road access sourced from investment schemes but various other infrastructures are also needed.

Last, but not least. The results show that in the long term and in the short term, the integration between social finance and Islamic commercial finance is able to reduce poverty rates in Indonesia. With the integration between the two sectors of Islamic finance, the value and potential of Islamic finance that is collected and distributed to alleviate poverty are even greater (Widodo, 2019). In addition, if the two sectors of Islamic finance are integrated with each other, it will also be easier for wealthy Muslim communities to spend their money to help other Muslim communities. For example, the Cash Waqf Linked Sukuk (CWLS) scheme is an integration between Islamic social finance in the form of waqf and Islamic commercial finance in the form of Sukuk. CWLS is an investment of cash waqf in state Sukuk whose rewards are channeled by Nazhir (manager of waqf funds and activities) to finance social programs and economic empowerment of the people. This scheme is said to have made it easier for the Muslim community to make cash waqf so that the potential of Islamic social finance can be maximized for the benefit of the Ummah, including alleviating poverty. The results of this study are the same as the research of Iskandar et al. (2021) and Widodo (2019).

Conclusion

Overall, this study concludes that the Islamic finance sector, both social and commercial, can be another alternative funding for the state to alleviate poverty in a Muslim-populated country such as Indonesia. However, if the two sectors of Islamic finance are integrated with each other, it can provide more effective benefits in alleviating poverty, both in the long and short term, rather than being unintegrated whose effects can only be felt in the long term. Therefore, regulatory

authorities such as Bank Indonesia and Baznas need to make policies that regulate the implementation of collaborative efforts at institutions in the two sectors of Islamic finance in the future. In addition, the push to implement the Islamic Banking Law no. 21/2008 which regulates that Islamic banks must have *baitul maal* and zakat institutions must also continue to be carried out so that the integration scheme of the two sharia finance sectors is more real and effective. This study has several limitations that can be an opportunity to conduct similar research in the future. First, waqf as an instrument of Islamic social finance has not been discussed in this study considering the difficulty of accessing data related to waqf in Indonesia, especially in past years. Second, poverty discussed in this study is still common without distinguishing between poverty in rural and urban areas. Therefore, future research can compare the role of Islamic social finance and Islamic commercial finance in rural or urban areas. Considering that currently, most Islamic microfinance institutions are located in rural areas.

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Author Contributions

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 Methodology: Siswantoro
 Project administration: -
 Supervision: -
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