



## ISLAMIC BANKING AND UNEMPLOYMENT: DETERMINING FACTORS OF UNEMPLOYMENT RATE AND ITS IMPLICATIONS ON POVERTY LEVEL

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### ABSTRACT

**Purpose:** This research aims to analyze whether the development of sharia banking and several other variables such as Gross Domestic Product (GDP), population and social factors have a significant effect on the unemployment rate and poverty alleviation in Indonesia.

**Method:** this research uses quantitative research with the research object being Indonesian macroeconomic data using semiannual data for the period 2010 – 2020. The analysis used is multivariate analysis based on the Partial Least Square-Structural Equation Model (PLS-SEM).

**Results and conclusions:** This research finds that social variables have a negative influence on the unemployment rate compared to population, Islamic banking, or GDP. Another finding is that GDP and Islamic banking have a very detrimental impact on poverty levels. This is different from the unemployment rate which has a positive impact. Regarding the use of mediating factors, namely the unemployment rate, it turns out that sharia banking, population and GDP do not have a significant effect on the poverty rate. However, the amount of poverty is negatively influenced by social variables.

**implications:** This research provides implications for government policy to continue to strengthen capital policies, networks, education and socialization of sharia banking. Apart from that, systematic, conducive, serious and measurable positive efforts in various economic sectors will have an impact on poverty alleviation.

**Originality/value:** This research offers novelty in the form of connecting Islamic banking with poverty levels and is found to have a negative relationship. We use data from 2010 to 2020. We suspect that this condition is caused by a lack of Indonesian government policies regarding capital, networks and education.

**Keywords:** Islamic Banking, GDP, Population Factors, Social Factors, Unemployment Rate, Poverty Level.

### BANCA ISLÂMICA E DESEMPREGO: FATORES DETERMINANTES DA TAXA DE DESEMPREGO E SUAS IMPLICAÇÕES NO NÍVEL DE POBREZA

### RESUMO

**Finalidade:** Esta investigação visa analisar se o desenvolvimento da sharia bancária e várias outras variáveis, como o Produto Interno Bruto (PIB), a população e os factores sociais, têm um efeito significativo na taxa de desemprego e no alívio da pobreza na Indonésia.

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**Métodos:** esta pesquisa utiliza pesquisa quantitativa tendo como objeto de pesquisa dados macroeconômicos da Indonésia usando dados semestrais para o período 2010 – 2020. A análise utilizada é a análise multivariada baseada no Modelo de Equações Estruturais de Mínimos Quadrados Parciais (PLS-SEM).

**Resultados e conclusões:** Esta investigação conclui que as variáveis sociais têm uma influência negativa na taxa de desemprego em comparação com a população, a banca islâmica ou o PIB. Outra conclusão é que o PIB e o sistema bancário islâmico têm um impacto muito prejudicial nos níveis de pobreza. Isto é diferente da taxa de desemprego, que tem um impacto positivo. No que diz respeito à utilização de fatores mediadores, nomeadamente a taxa de desemprego, verifica-se que a banca sharia, a população e o PIB não têm um efeito significativo na taxa de pobreza. No entanto, o nível de pobreza é influenciado negativamente pelas variáveis sociais.

**implicações:** Esta pesquisa fornece implicações para a política governamental para continuar a fortalecer as políticas de capital, redes, educação e socialização do sistema bancário sharia. Além disso, esforços positivos sistemáticos, conducentes, sérios e mensuráveis em vários sectores económicos terão um impacto na redução da pobreza.

**Originalidade/valor:** Esta investigação oferece novidade na forma de ligar a banca islâmica aos níveis de pobreza e revela ter uma relação negativa. Utilizamos dados de 2010 a 2020. Suspeitamos que esta condição seja causada pela falta de políticas governamentais indonésias em matéria de capital, redes e educação.

**Palavras-chave:** Banca Islâmica, PIB, Factores Populacionais, Factores Sociais, Taxa de Desemprego, Nível de Pobreza.

## **BANCA ISLÁMICA Y DESEMPLEO: FACTORES DETERMINANTES DE LA TASA DE DESEMPLEO Y SUS IMPLICACIONES EN EL NIVEL DE POBREZA**

### **RESUMEN**

**Propósito:** Esta investigación tiene como objetivo analizar si el desarrollo de la banca sharia y varias otras variables como el Producto Interno Bruto (PIB), la población y los factores sociales tienen un efecto significativo sobre la tasa de desempleo y el alivio de la pobreza en Indonesia.

**Método:** esta investigación utiliza una investigación cuantitativa cuyo objeto de investigación son los datos macroeconómicos de Indonesia utilizando datos semestrales para el período 2010 – 2020. El análisis utilizado es un análisis multivariado basado en el modelo de ecuaciones estructurales de mínimos cuadrados parciales (PLS-SEM).

**Resultados y conclusiones:** Esta investigación encuentra que las variables sociales influyen negativamente en la tasa de desempleo en comparación con la población, la banca islámica o el PIB. Otro hallazgo es que el PIB y la banca islámica tienen un impacto muy perjudicial sobre los niveles de pobreza. Esto es diferente de la tasa de desempleo que tiene un impacto positivo. En cuanto al uso de factores mediadores, concretamente la tasa de desempleo, resulta que la banca sharia, la población y el PIB no tienen un efecto significativo sobre la tasa de pobreza. Sin embargo, la cantidad de pobreza se ve influenciada negativamente por variables sociales.

**Implicaciones:** Esta investigación proporciona implicaciones para que la política gubernamental continúe fortaleciendo las políticas de capital, las redes, la educación y la socialización de la banca sharia. Aparte de eso, los esfuerzos positivos sistemáticos, propicios, serios y mensurables en diversos sectores económicos tendrán un impacto en el alivio de la pobreza.

**Originalidad/valor:** Esta investigación ofrece novedad al conectar la banca islámica con los niveles de pobreza y se encuentra que tiene una relación negativa. Utilizamos datos de 2010 a 2020. Sospechamos que esta condición se debe a la falta de políticas gubernamentales de Indonesia en materia de capital, redes y educación.

**Palabras clave:** Banca Islámica, PIB, Factores Poblacionales, Factores Sociales, Tasa de Desempleo, Nivel de Pobreza.

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## 1 INTRODUCTION

Unemployment in Indonesia has never decreased significantly. Various efforts have been and are being made, in order to reduce it. Those are all our tasks that must be consistently and seriously implemented. There are many programs and activities that can be carried out by the government in order to reduce unemployment both on a macro and micro scale, local and national. Program which are national in nature, including how to bring foreign investment to Indonesia. What are the factors that attract them to be able to invest in Indonesia? How can our public policy services be provided to them so that they become interested in investing in the long term and provide tangible benefits for the welfare of our people, especially the unemployed whose numbers are currently quite worrying. Micro policies and local (regional) scale policies include how to mobilize the community to have an adequate entrepreneurial spirit. This spirit must be continuously instilled in all levels of society, from an early age even this entrepreneurial spirit is important to be taught in schools starting at the secondary level.

Our unemployment rate is still high. We can see this from the BPS publication data which was recorded from 2010 to 2020. The average number of unemployment is 6,970,161 people. Table 1 breaks down the different types of unemployment by education level, starting with those who have graduated from elementary, junior high, high school, vocational school, diploma, and university. High school grads experience the highest unemployment rate. The average number for each semester is 1,969,206 people. This number reached 20.16% of the total open unemployment rate that occurred in Indonesia in August 2020.

**Table 1**

*Unemployment Rate Based on Level of Education Completed Year of 2010-2020*

No	Type of unemployment	Average
1	Elementary School	1,209,681
2	High school graduate	1,516,185
3	High school graduate	1,969,206
4	Graduated from high school	1,359,687
5	Graduated Diploma	273,580
6	Graduated University	641,821
	Total	6,970,161

Source: <https://bps.go.id/> (processed data of several publications)

The unemployment rate achieved by university graduates still has a fairly high average number in each half year (641,821 people), although the figure is still below high school and vocational high school graduates, but still higher than diploma graduates. It is a fact that



diploma graduates are absorbed more quickly than university graduates (S1). When the average number of all types of unemployment is compared with the total population aged 15 years and over, the unemployment rate of this type reaches 5.43%. The last figure indicates that the unemployment rate in our country is still relatively high, and is a difficult task for the State that must be faced with full seriousness. Because the main core of economic activity is to provide jobs for citizens in need. Because one's well-being and self-esteem are reflected by the ownership of the job itself. The absence of work carried out by someone has a very heavy psychological impact on life, and will have an impact on the quality of existing human resources. That is a glimpse of how important and strategic it is to solve the unemployment problem in this country, even in the country anywhere. The measure of development success can usually be seen from the success in alleviating the unemployment problem itself. The average total unemployment rate of 6.97 million people (table 1) is a very high number because it is almost two-thirds of the open unemployment rate in Indonesia (71.33%).

The next major challenge is dealing with the problem of poverty. Poverty cannot be separated from the problem of unemployment, both are interrelated and even influence each other. The high unemployment rate has a strong impact on the occurrence of poverty levels. Therefore, alleviating unemployment will at the same time have an impact on solving poverty as well. If we look at the data released by BPS, there is a negative trend in the poverty rate until 2019. If we look at the data, in 2010 the poverty rate reached 31.2 million people, which continued to decline until it reached 24.79 million people in 2019. This means that there is an average downward trend of around 2.27%. However, since the onset of the Covid-19 Pandemic at the beginning of semester 1 of 2020, there has been a significant spike in the poverty rate, which we cannot avoid. The number of poor people has increased quite sharply, reaching 27.55 million people by the end of 2020.

As far as the researcher observes, until now no one has tried to elaborate on how the influence of the presence of Islamic banking on unemployment alleviation as well as the level of poverty on a national scale. The indicators that will be used to strengthen the Islamic banking variables are assets owned, Third Party Funds (TPF) used and sharia financing distributed by Islamic banking to its customers. We are interested in researching the role of Islamic banking in alleviating poverty for several reasons, including the encouraging and significant increase of assets and other indicators (OJK, 2022). If we look at the increase of the last five years, for example (2016-2020), it shows a very encouraging growth in the indicators of Islamic banking, namely each growth in assets, deposits and financing were 14.22%, 13.89% and 18.15% respectively. It is a very extraordinary increase, all of which the double-digit growth rate,



especially for profit-sharing financing, reaching almost 20%. Of course, this is an encouraging indicator as well as proud. Because there may be awareness from the public to switch to using the Islamic banking system. Apart from the excitement and pride with these very high growth figures (OJK, 2022), it is intrigued to want to know more about whether this growth has an impact on alleviating unemployment and poverty in Indonesia at the same time? This is what this research wants to find the answers.

In addition, bearing in mind that was no research has been found that specifically explains the relationship between the increase in Islamic banking and the unemployment rate and at the same time its impact on poverty in Indonesia, the authors are interested in conducting research to answer. This is the goal and novelty to be obtained in this study.

## 2 THEORETICAL FRAMEWORK

Many factors (variables) can affect the unemployment rate and poverty rate, including the value of Gross Domestic Product (GDP), population factors, social factors and banking institutions (ISMAIL, 2021); (JEANNENEY & KPODAR, 2011; BOLARINWA et al., 2021; AL-SHAMI et al., 2016; NIRAGIRE & NSHIMYIRYO, 2017; HO & TAN, 2008; BADIBANGA & ULIMWENGU, 2020). Of course, each of these factors will have many indicators that directly affect the level of these variables. The level of GDP, for example, will depend on the sectors in it. Which sectors are dominantly contributing to the value of GDP and which sectors are still low in contribution. By analyzing growth and contribution we can see what strategies can be implemented in efforts to develop GDP in order to have an impact on reducing unemployment and poverty. The relationship between output and unemployment has been explained by OKUN'S Law (1962), that to reduce one percent of unemployment it takes approximately four times the increase in GDP each year. This also invites many researchers who want to prove the truth of the law, as has been done in several developed and developing countries (BOĎA & POVAŽANOVÁ, 2019A; IBRAGIMOV & IBRAGIMOV, 2017; ÖSTERHOLM, 2016; X. WANG & HUANG, 2017).

Population factors are also very important factors to consider in relation to our economy, because population is the object of development as well as the subject (actor) of development itself. In it there are many dynamics, which should not escape our attention, including those related to population density, population growth rate, labor force, dependency rates and others. All of that by itself will affect the unemployment and poverty rates at the same time. This research will also involve social factors, which will use the indicators of the Human



Development Index (HDI), Net Enrollment Rate (NER) and Average Length of Schooling (ALS). By combining demographic and social factors, the researcher wants to know how the impact on unemployment and poverty rates is.

Theories related to job creation (demand for labor) are actually the same as efforts to reduce unemployment. So, talking about a theoretical framework for reducing unemployment is talking about job creation. Job opportunities can be created for several reasons, including an increase in investment (foreign or domestic), an increase in production, and economic growth. In several other studies conducted in several countries, it turns out that the demand for labor, apart from being determined by these factors, is also determined by other factors such as: input prices factors of production (eg interest rates), wage rates, imported products, exchange rates, productivity, export products, and labor unions (ASSAAD, 2014; DAVID ALLEN, 2015; EHRENBERG, R. G. & SMITH, 2003A; HANDY & SRINIVASAN, 2005; HOFFMAN, 2009; KOMALUDIN, 2020; LAVOIE, 2003; MKOMBE et al., 2020; NJIKAM, 2014; OKUMURA, 2011; RASDORF et al., 2016; TARJÁNI, 2007; WARDA, 2014; YANIV, 2004; ZMAMI & BEN-SALHA, 2020; EHRENBERG, R. G. & SMITH, 2003).

Another theory that discusses the process of job creation is the Theory of Structural Change developed by ARTHUR LEWIS (1954). According to his view, the community was initially grouped into two groups, namely rural and urban communities. Rural communities are characterized by an abundance of labor, low wages, and low levels of productivity. Likewise, the marginal productivity of labor becomes zero, due to excess labor (labor surplus). Meanwhile, the urban economy is different from the rural one, characterized by high levels of wages, positive marginal productivity of labor and accumulation of capital for further industrial development, which in turn can expand the job opportunities needed by people in rural areas. The result of this is the urbanization of labor from the rural (traditional sector) to the modern sector (urban). As long as the capital accumulation process occurs in the modern sector and still requires additional labor, the flow of labor from the traditional sector will continue to flow into the modern sector (CURRIE-ALDER, 2016; DUBEY et al., 2006; GARNAUT, 2010). This process is called the structural transformation from the traditional sector to the modern sector where the level of productivity and even the welfare of the workforce is getting better.

In connection with this paradigm, the next expected impact is that the process of eradicating the poverty level in the lower levels of society will gradually decrease. In addition to the unemployment rate, of course, there are many other determinants that can affect the poverty rate. Several studies have been conducted relating to the analysis of the determinants of poverty levels, both domestically and nationally. The results are quite diverse, namely the



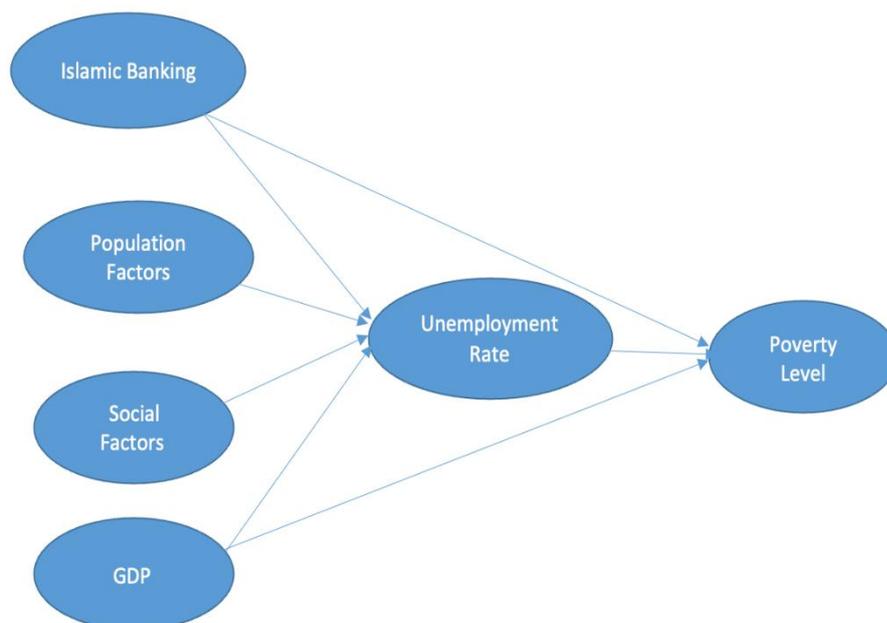
poverty level is influenced by age, population distribution between cities and villages, education level, marital status, religion, amount of money sent to family (remittance), family size, land ownership, distance to market, family income, health level, and demographic characteristics (BLUME & PEDERSEN, 2007; EYASU, 2020; HANDALANI, 2019; ISLAM et al., 2016; SEKHAMPU, 2017; HAATAJA, 1999; GALLIE et al., 2003; FRANSMAN & YU, 2019; MEO et al., 2018;HLASNY et al., 2022).

From several empirical studies conducted as described above and by selecting several relevant variables for the case of Indonesia, the authors design the model framework as figure 1.

Based on the framework in figure 1, the hypotheses built in this study are: (a) Partially assumed that population factors have a positive effect on the unemployment rate, while Islamic banking, social factors and GDP have a negative effect on the unemployment rate, (b) Partially assumed that Islamic banking and GDP has a negative effect on the poverty level, while the unemployment rate has a positive effect on the poverty level, (c) Assumed through the mediation of the unemployment rate, Islamic banking, population factors, social factors and GDP affect the poverty level.

**Figure 1**

*Model Framework*



Source: Prepared by the authors (2021)



### 3 METHODOLOGY

The research method used is quantitative research with Indonesian macroeconomic data as the object of research. The analysis used is a multivariate analysis, based on the Partial Least Square-Structural Equation Model (PLS-SEM). The technical advantages of this analysis are: it does not require large sample members, the data does not need to be normally distributed, and the measurement scale does not have to be intervals or ratios (HAIR et al., 2019; HAIR Jr. JOSEPH F., 2018). One of the differences between the PLS method and SEM is that PLS is more of a predictive model, whereas SEM tests causality (theory) (BLOMSTERVIK et al., 2020; HAIR et al., 2011; YAZDI et al., 2017). To evaluate the PLS-SEM model, two analytical techniques can be used, namely: (1) evaluation of the measurement model (outer model) and (2) structural model (inner model).

First, In the measurement model, several evaluation techniques will be used whose purpose is to test the validity and reliability of the indicators used in the study. To test the validity of the indicator, the loading value between the indicator and its latent variable can be used. If the loading value is less than 0.7 then the indicator must be removed from the model. Another evaluation technique is the Average Variance Extracted (AVE). If the AVE value is less than 0.5, then the variable indicator does not have convergent validity (the indicator must be eliminated from the model) (BLOMSTERVIK et al., 2020; HAIR et al., 2011; YAZDI et al., 2017).

The second, PLS-SEM evaluation model is the evaluation of the structural model (inner model). At this stage, by using bootstrapping in the SMART-PLS Program (bootstrapping is a nonparametric procedure that can be used to test the statistical significance of various PLS-SEM results), several values will automatically be generated, namely: path coefficient,  $R^2$ ,  $Q^2$ , t-value, and Goodness of Fit (GoF) index. These numbers can then be used to test the hypothesis of the effect of exogenous latent variables with endogenous latent variables, path analysis, model fit and others (BLOMSTERVIK et al., 2020; HAIR et al., 2011; YAZDI et al., 2017).

The variables that will be used in this study consist of exogenous variables (X1, X2, X3, X4), intervening variable (Y1), endogenous variable (Y2) and manifest variables (indicators). According to Figure 1, the model used is as follows.

$$Y1 = f(X1, X2, X3, X4) \dots\dots\dots(1)$$

$$Y2 = g(Y1) \dots\dots\dots (2)$$



$$Y2 = h (X1, X4) \dots\dots\dots(3)$$

Completely the variables used are in the table 2.

**Table 2**

*Operationalization of Research Variables*

No	Variables ( <i>latent variables</i> )	Definition	Indicators ( <i>Manifest Variables</i> )	Scale
1	Islamic Banking (X1)	Islamic banking activities in an effort to achieve organizational goals	1. Assets (X11) 2. Third Party Funds (TPF) (X12) 3. Sharia financing (X13)	Ratio
2	Population Factor (X2)	All the dynamics of population factor activities that occur in Indonesia	1. Population density (X21) 2. Population growth rate (LPP) (X22) 3. Labor Force (X23) 4. Dependency ratio (X24)	Ratio
3	Social Factors (X3)	Social dynamics related to development and education aspects	1. Human Development Index (HDI) (X31) 2. Net Enrollment Rate (NER) (X32) 3. Average Length of School (ALS) (X33)	Ratio
4	Gross Domestic Product (GDP) (X4)	GDP by expenditure measured at constant prices (in 2010)	1. Household consumption expenditure (X41) 2. State Consumption Expenditure (X42) 3. Formation of gross domestic fixed capital (FGDFC) (X43) 4. Export (X44) 5. Import (X45)	Ratio
5	Unemployment Rate (Y1)	Open unemployment rate (TPT) based on the level of education completed	1. Graduated from elementary school (Y11) 2. Graduated from junior high school (Y12) 3. Graduated from high school (Y13) 4. Vocational school (Y14) 5. Graduated diploma (Y15) 6. Graduated University (Y16)	Ratio
6	Poverty Rate (Y2)	Poverty rate by region	1. Urban (Y21) 2. Rural (Y22)	Ratio

Source: Prepared by the authors (2021)



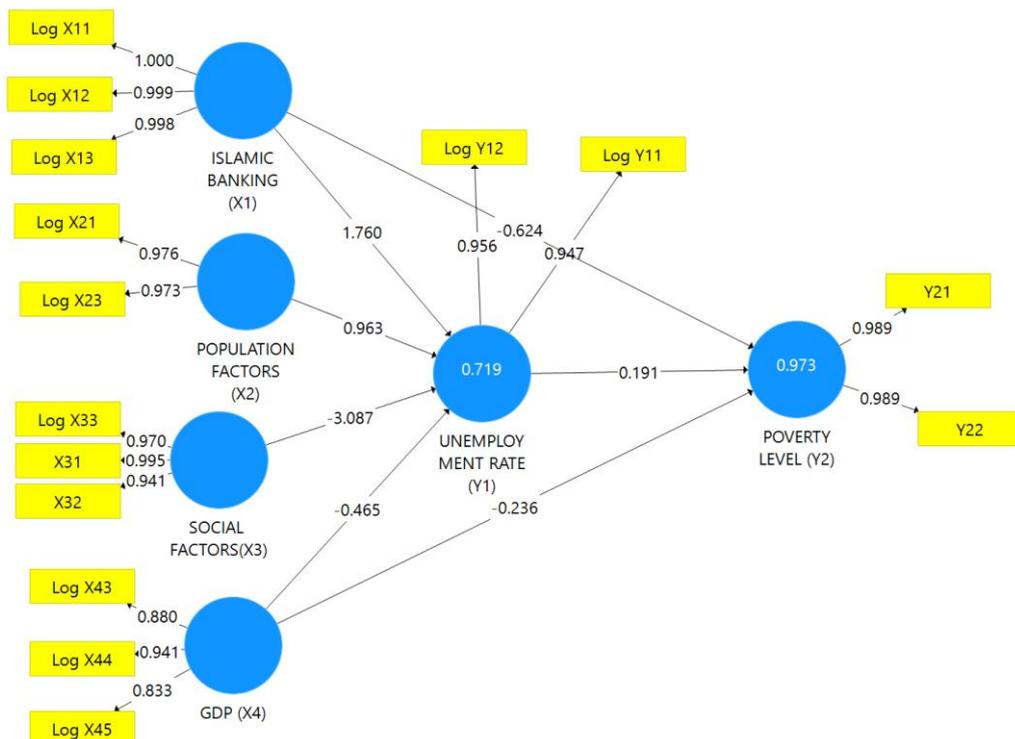
## 4 RESULTS AND DISCUSSION

### 4.1 RESULT

The first step to evaluate the results of the PLS-SEM model is the evaluation of the measurement model. The results of data processing using the SMART-PLS 3.3 Program, obtained several statistical values (loading factors) and after deleting several indicators that are less than 0.7, the chart show in figure 2 below. The rule of thumb for evaluating a measurement model is that the loading factor must be greater than 0.7. That is, if the loading factor value is less than 0.7 it indicates that the indicator is invalid and must be removed (Blomstervik et al., 2020; Hair et al., 2011; Yazdi et al., 2017).

**Figure 2**

*Loading factors after revisions*



Source: Prepared by the authors (2021)

Seen, after eliminating several loading factors, finally all loading factor values are above 0.7 (all indicators used are valid). These numbers have their respective meanings as follows. Islamic banking (X1) is able to explain the variation of almost 100% of the manifest variables (the indicators used are X11 Islamic banking assets; X12 third party funds (TPF); and X13



Islamic financing). Population factors (X2) are able to explain almost 100% of the variation of the manifest variables, namely X21 population density and X22 labor force. Social factors (X3) are able to explain 94% more variations of the manifest variables, namely X31 Human Development Index (HDI); and X32 Net Enrollment Rate (NER) and X33 average length of schooling (ALS). GDP (X4) is able to explain 83% more variation the manifest variable (indicator) is X43 gross domestic fixed capital formation (GDFCF); X44 export and X45 import. Unemployment rates (Y1) are able to explain more than 94% of the manifest variables, namely Y11 the unemployment rate for elementary school graduates; and Y12 unemployed who graduated from Junior High School. The last latent variable (Y2) was able to explain the variation of the manifest variable more than 98%, namely Y21 the urban poverty level and Y22 the rural poverty level.

Furthermore, the validity of the indicators can also be evaluated by using the AVE (Average Variance Extracted). The results of data processing show that all of the AVE values are already above the value of 0.5. This means that the indicators (all manifest variables) used can measure the latent variables involved in the model. Complete data as shown in the table 3.

**Table 3**

*Average Variance Extracted (AVE)*

No	Variables	AVE	Result
1	GDP (X4)	0.784	Valid
2	Population factors (X2)	0.949	Valid
3	Poverty level (Y2)	0.979	Valid
4	Sosial Factors (X3)	0.939	Valid
5	Islamic banking (X1)	0.998	Valid
6	Unemployment Rate (Y1)	0.905	Valid

Source: Result of data processing, 2021

In addition to the two indicators for evaluating the validity of the indicators used above, it is still necessary to evaluate the reliability of the indicators used to measure the latent variables involved in the research model. The reliability of an indicator will be tested using composite reliability and Cronbach's Alpha. The results of data processing using the SMART-PLS 3.3 Program show the number satisfactory result is that all the latent variables used have Composite Reliability and Cronbach's Alpha values above 0.7. This means that all the latent variables used already have an adequate level of reliability to be continued in further analysis. Complete data on the results of the two tests can be seen in the table 4.



**Table 4**

*Composite Reliability and Cronbach's Alpha*

No	Variables	Composite Reliability	Cronbach's Alpha	Result
1	GDP (X4)	0.916	0.869	Reliable
2	Population factors (X2)	0.974	0.946	Reliable
3	Poverty level (Y2)	0.989	0.979	Reliable
4	Social factors(X3)	0.979	0.967	Reliable
5	Islamic Banking (X1)	0.999	0.999	Reliable
6	Unemployment Rate (Y1)	0.950	0.896	Reliable

Source: Result of data processing, 2021

Since the results of the validity and reliability tests have met the requirements, then the results of data processing related to the evaluation of the structural model (inner model) can be presented. By doing bootstrapping, several parameters can be obtained as shown in table 5.

**Table 5**

*Direct and Indirect Relationship*

Relations	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T- Stat	P-Values	Decision
<b>Direct Relationship:</b>						
GDP (X4) -> Poverty Level (Y2)	-0.236	-0.25	0.082	2.874	0.004	Accepted***
GDP (X4) -> Unemployment Rates (Y1)	-0.465	-0.487	0.381	1.22	0.223	Rejected
Population Factors (X2) -> Unemployment Rate (Y1)	0.963	1.069	0.747	1.289	0.198	Rejected
Sosial Factors (X3) -> Unemployment Rate (Y1)	-3.087	-3.21	1.114	2.772	0.006	Accepted***
Islamic Banking (X1) -> Poverty Level (Y2)	-0.624	-0.625	0.107	5.849	0.000	Accepted***
Islamic Banking (X1) -> Unemployment Rate (Y1)	1.76	1.808	1.005	1.751	0.081	Rejected
Unemployment Rate(Y1) -> Poverty Level (Y2)	0.191	0.174	0.082	2.322	0.021	Accepted**
<b>Indirect Relationship:</b>						
GDP (X4) -> Unemployment Rate (Y1) -> Poverty Level (Y2)	-0.089	-0.094	0.091	0.975	0.33	Rejected
Population Factors (X2) -> Unemployment Rate (Y1) -> Poverty Level (Y2)	0.184	0.184	0.171	1.075	0.283	Rejected
Sosial Factors(X3) -> Unemployment Rate (Y1) -> Poverty Level (Y2)	-0.589	-0.555	0.313	1.882	0.06	Rejected
Islamic Banking (X1) -> Unemployment Rate (Y1) -> Poverty Level (Y2)	0.336	0.325	0.247	1.357	0.175	Rejected

Source: Research results (Bootstrapping)

Notes: \*\*\*)  $\alpha = 1\%$ ; \*\*)  $\alpha = 5\%$



Table 5 shows the direct relationship of latent variables X1, X2, X3, X4 to Y1 (unemployment rate), the relationship between Y1 and Y2 (poverty level), and the relationship between X1 and X4 to Y1. While the lower part of TABLE 5 shows an indirect relationship between the latent variables X1, X2, X3 and X4 on Y2 through Y1. It can be seen directly that GDP (X4) has a significant negative effect on the poverty level (Y2). This can be seen from the P-value which is smaller than 0.01. This means, an increase in GDP has a direct impact on reducing poverty levels (according to the hypothesis). On the other hand, GDP does not significant effect on the unemployment rate (not according to the hypothesis). Likewise, population factors (X2) do not have a significant direct effect on the unemployment rate (Y1). The relationship between the two is positive (not according to the hypothesis). Social Factors (X3) has a significant negative relationship with the unemployment rate (according to the hypothesis). This can be seen by the very small P-Value, which is 0.006, far below 1%. This significant negative relationship means that the better social factors -- Human Development Index (HDI), Net Enrollment Rate (NER), and Average Length of Schooling (ALS)--, will affect the decrease in unemployment. Islamic banking (X1) directly has a very significant negative effect on the poverty level (Y2) (according to the hypothesis). This means that the higher the activities of Islamic banking (reflected by the increase in Assets, Third Party Funds, and Islamic Financing), the lower the poverty rate will be. However, the direct effect of Islamic banking (X1) on the unemployment rate (Y1) is not significant. This is indicated by the relatively high P-Value, which is 0.081 (above 5%). Unemployment rates (Y1) directly have a significant positive effect on poverty rates (Y2) (according to the hypothesis). The P-Value value obtained is below 5%. The positive relationship that occurs means that an increase in the unemployment rate will have an impact on the worsening of the poverty rate.

The lower part of table 5 shows the indirect relationship of latent variables X1, X2, X3, X4 to Y2 through Y1. The results of data processing show that all exogenous latent variables (Islamic banking, population factors, social factors and GDP) indirectly (after being mediated by Y1) have no significant effect on the poverty level (Y2). However, there is one variables that have a significant influence, namely social factors (X3). The P-Value value obtained is 0.06.

The magnitude of the coefficient of determination for the unemployment rate and poverty rate can be seen in the table 6.



**Table 6**

*Coefficient of Determination*

<b>Dependent variables</b>	<b>R-Square</b>	<b>R-Square Adjusted</b>
Poverty Rates (Y2)	0.973	0.969
Unemployment Rates (Y1)	0.719	0.652

Sources: Research results

From the results of calculations using the formula  $F = \frac{R^2/n-1}{(1-R^2)/(n-k)}$  it is obtained that the respective values are  $F_1 = 10.87$  and  $F_2 = 216.2$ . All of the values are above the F-TABLE value, so that simultaneously the effect of Islamic banking (X1), population factors (X2), social factors (X3) and GDP (X4) on the unemployment rate (Y1) is quite significant. And it is also, the influence of Islamic banking (X1), GDP (X4) and the unemployment rate (Y1) simultaneously have a significant effect on the poverty level (Y2). The results of calculations through blindfolding obtained the value of  $Q^2$  for each dependent latent variable (unemployment rates) and (poverty rates) are 0.584 and 0.921, all of which are above 0.5, meaning that the model used has a relevant predictive value.

## 4.2 DISCUSSION

This study discovered that Islamic banking (as measured by assets, third party funds and sharia financing) has a significant negative relationship with the level of poverty (according to the hypothesis, because It has a negative regression coefficient). Research that is somewhat similar to this study is research conducted by Munawar Ismail who conducted research using provincial panel data in Indonesia, during the period 2004-2018. He concluded that commercial banking credit influences poverty levels in the provinces (ISMAIL, 2021). This conclusion, however, differs from the findings of O'Malley and Veltmeyer's study of the relationship between banking (in this case, the World Bank) and poverty in Latin America. The study concludes that, whatever its intentions, the World Bank and its doctrines contribute to Latin America's poverty rather than solving it (O'Malley & Veltmeyer, 2006). Another study conducted by Jeanneney et al in Vietnam (Jeanneney & Kpodar, 2011) investigated how financial development aids in poverty reduction. The results obtained using data from a sample of developing countries from 1966 to 2000 show that the ability of the banking system to facilitate transactions benefits the poor, and the benefits of financial development to the poor outweigh the costs. Another finding that is consistent with this research is a study conducted in Africa (BOLARINWA et al., 2021) that discovered a relationship between private banking



credit and poverty levels. However, different conclusions were drawn from the findings of Hanjie Wang et al.'s study in one region of China (H. WANG et al., 2020).

However, the direct effect of Islamic banking on the unemployment rate is not significant. This finding is different from the results obtained by KIM et al., 2019 which states that unemployment increases along with the development of financial institutions. Similar findings to Kim were put forward by Iwan Setiawan in his research in Indonesia using time series data from 1992 to 2012, which concluded that Islamic financing has a significant positive effect on the open unemployment rate in Indonesia (SETIAWAN, 2019). Another study conducted on a group of Malay Muslim women in Malaysia found that the Amanah Ikhtiar Malaysia Microcredit Institution (AIM) had a significant influence on women's income and empowerment (AL-SHAMI et al., 2016).

Likewise, population factors do not have a significant direct effect on the unemployment rate. The relationship between the two is positive (not according to the hypothesis). This finding confirms the results of Cruz's research in Spain (EGUÍA & ECHEVARRÍA, 2004) which states that empirically there is no clear long-term relationship between population variables and specific unemployment rates for different groups. However, different research results were obtained by Niragire who conducted research in Rwanda related to the factors that affect the length of unemployment (NIRAGIRE & NSHIMYIRYO, 2017).

According to the hypothesis, social factors have a significant negative relationship with the unemployment rate. This finding is consistent with the findings of KONG WENG HO'S (2008) research in Singapore, which found that human capital (as measured by post-secondary education level) has a significant negative relationship with the unemployment rate (HO & TAN, 2008). If we interpret those with income as having jobs (rather than being unemployed), then there are relevant study results, namely an interesting relationship between a more evenly distributed level of education (human capital) and the level of income inequality. According to the findings of Lee's research, a more equitable distribution of education contributes significantly to reduction of income inequality. This can be seen from the results of Lee's research which states that a more equitable distribution of education contributes significantly to reducing income inequality. The expansion of education is a major factor in reducing educational inequality as well as income inequality (LEE & LEE, 2018). The findings of Lee's study indicate that social factors (in this case the level of education) have a significant relationship with the unemployment rate, because it can reduce income inequality. Furthermore, Almendarez in his writings (Human Capital Theory) states that how important it is to strengthen



the education side (social factors) because it will relate to many other problems including the issue of employment to be carried out by the government (ALMENDAREZ, 2013).

This study found that GDP directly has a significant negative effect on the poverty level. This means, an increase in GDP has a direct impact on reducing poverty levels (according to the hypothesis). This study confirms the results of research conducted by Suryahadi when conducting research in two situations (before the Crisis and after the Financial Crisis in 1998 in Indonesia). The study states that sectoral growth has a significant influence on poverty reduction, especially the service sector, its growth provides the largest contribution to poverty reduction in both rural and urban areas (SURYAHADI et al., 2012). The conclusion of the research conducted by Badibanga & Ulimwengu, 2020 is in line with this research. The study concludes that optimizing investment in the agricultural sector can increase output growth and at the same time have a significant effect on poverty reduction in Congo. However, the results of this study differ from the conclusions presented by Jalles. He stated that statistically there is no causal relationship between real GDP and poverty or between real GDP and inequality (JALLES, 2011).

Furthermore, this study found that GDP had no significant effect on the unemployment rate (not according to the hypothesis). The findings of this study are different from Okun's Law which explains that when there is an increase in the rate of economic growth by a certain percentage, it results in a decrease in the unemployment rate with a smaller percentage. This statement is confirmed by several studies in various countries (BARTOLUCCI et al., 2018); (GIL-ALANA et al., 2020; (FENG, 2018; BOĐA & POVAŽANOVÁ, 2019; HUANG et al., 2020; AHIADORME, 2021).

Unemployment rates directly have a significant positive effect on poverty rates (according to the hypothesis). The results of this study confirm the results of research conducted by Haataja who conducted research in 8 OECD countries (HAATAJA, 1999). This is also in line with research conducted by Gallie. He stated that unemployment increases the risk of poverty and social isolation and even contributes to the strengthening of a vicious circle (GALLIE et al., 2003). Similar research was also delivered by Fransman who conducted research in South Africa. The results of the study show that the most contributing to the poverty rate are unemployment, years of schooling and disability (FRANSMAN & YU, 2019).

This study found that almost all exogenous latent variables (Islamic banking, population factors, social factors and GDP) indirectly (after being mediated by the unemployment rate variable) had no significant effect on the poverty rate. Only one variable that has a significant influence, namely social factors. Social factors consistently both directly and indirectly have a



significant effect on poverty levels. From TABLE 5 above, it appears that the variables of Islamic banking and GDP directly without being mediated by the unemployment rate variable have a very significant negative effect on the poverty level. This means that the direct influence of the two variables is stronger (more meaningful) than mediated by the unemployment rate variable first.

## 5 CONCLUSION

After being analyzed and discussed, this study draws the conclusion that population factors, Islamic banking and GDP do not have a significant effect on the unemployment rate. Meanwhile, social factors as measured by the Human Development Index (HDI), Net Enrollment Rate (NER) and Average Length of Schooling (ALS) have a significant negative effect on the unemployment rate. Meanwhile, Islamic banking and GDP have a significant negative effect on the poverty rate, while the unemployment rate has a significant positive effect on the poverty rate. Regarding the use of the mediating variable, namely the unemployment rate, the results find that Islamic banking, population factors, and GDP do not have a significant effect on poverty. But social factors have a significant negative influence on poverty levels.

The study's new finding is that there is a significant negative relationship between Islamic banking and poverty rates in Indonesia between 2010 and 2020. In light of these findings, the author would like to make several suggestions that should be considered. As previously stated, the negative relationship implies that the increasing number of indicators in Islamic banking, such as assets, third party funds (TPF), and sharia financing, will have an impact on poverty levels in urban and rural areas. In this regard, it would be prudent for the government to continue to strengthen Islamic banking policies, capital, networks, education, and socialisation.

Similarly, it was discovered that the GDP variable has the same direct effect, namely that it can reduce the level of poverty. Positive systemic, conducive, serious, and measurable efforts in various economic sectors will have an impact on poverty alleviation. Increased added value in various sectors of the economy provides a strong impetus for addressing the problem of poverty. Furthermore, this study demonstrates that Islamic banking has a significant impact on poverty levels. So, in the future, collaboration, cooperation, synergy, and partnership efforts between Islamic banking and economic sectors must be strengthened and prioritised if poverty is to be gradually overcome.



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