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The Influence of Islamic Bank and Zakat on Unemployment in Urban and Rural Areas of Indonesia

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Abstract

Unemployment in Indonesia has shown a downward trend in the last decade which is associated with the positive growth of Islamic banks and zakat in Indonesia. This research aims to reveal the impact of Islamic bank performance on unemployment in Indonesia at a national level, in urban and rural areas. It also aims to find out the impact of zakat performance on those groups of unemployment. ARDL method is used to analyze data between 2007 and 2022. The results of the findings show that the zakat collection positively affects national unemployment, urban unemployment, and rural unemployment in Indonesia in the long run. However, in the short run, it only increases urban unemployment. Meanwhile, Islamic bank financing significantly reduces national unemployment and urban unemployment in the short run but it has no impact on rural unemployment. In the long run, Islamic bank financing does not affect all kinds of unemployment.
Keywords: Islamic bank, zakat, unemployment, urban, rural.

Abstrak

Pengangguran di Indonesia menunjukkan tren penurunan dalam satu dekade terakhir bersamaan dengan pertumbuhan positif bank syariah dan zakat di Indonesia. Penelitian ini bertujuan untuk mengungkap dampak kinerja bank syariah terhadap pengangguran di Indonesia secara nasional, baik di perkotaan maupun pedesaan. Penelitian ini juga bertujuan untuk mengetahui dampak kinerja zakat terhadap kelompok pengangguran tersebut. Metode ARDL digunakan untuk menganalisis data antara tahun 2007 hingga 2022. Hasil temuan menunjukkan bahwa penghimpunan zakat berdampak positif terhadap pengangguran nasional, pengangguran perkotaan, dan pengangguran pedesaan di Indonesia dalam jangka panjang. Namun, dalam jangka pendek, hal ini hanya meningkatkan pengangguran di perkotaan. Sementara itu, pembiayaan bank syariah secara signifikan mengurangi pengangguran nasional dan perkotaan dalam jangka pendek namun tidak berdampak pada pengangguran di pedesaan. Dalam jangka panjang, pembiayaan bank syariah tidak berdampak pada semua jenis pengangguran.
Kata Kunci: *Bank syariah, zakat, pengangguran, perkotaan, pedesaan.*

Introduction

Unemployment is a global and universal problem that occurs in every country, especially in countries with large populations. The persistence of this problem can cause a bad image of government performance, political instability in society, and unsustainable economic growth in the long term, and can cause an increase in crime rates (Oktafianto et al., 2019). Several attempts have been made by every government to reduce unemployment cases in the country.

Among the causes of this problem, high population growth is believed the main contributor to high unemployment, especially in developing countries which are mostly highly populated (Singh, 2018).

Indonesia is one of the countries with the largest population in Southeast Asia, even in the world. In its development, Indonesia as the largest country in the world, has indicated positive results in handling unemployment in the last 20 years. Based on the data from the statistical agency (BPS), the unemployment trend in Indonesia has decreased from 9.75% in 2007 to 5.86% in 2023. However, the distribution of unemployment is uneven, around 73% of the unemployed are in urban areas. In this regard, the Indonesian Government has carried out a movement to reduce unemployment with integrated cooperation between the Ministry of Cooperatives, Ministry of Trade and Industry, Ministry of Manpower and Transmigration, Ministry of PUPR, Ministry of BUMN by implementing several policies, providing facilities and other forms of stimulus. Considering Indonesia's large population and diverse demography, the government's handling alone would not be sufficient due to the limitations of its capacity. Therefore, the role of all parties is necessary for resolving the unemployment problem. According to Fajri et al. (2023), the government needs to collaborate with societies and private sectors in running programs to successfully reduce the number of unemployment cases in a country.

Many research results reveal that the Covid-19 pandemic has a high influence on the problem of unemployment. According to Mifrahi & Darmawan (2022), COVID-19 has an impact on the world economy, directly impacting the level of unemployment. This finding is supported by reports presented by the OECD (Organization for Economic Cooperation and Development) that due to the effects of COVID-19, the unemployment rate is much higher than the crisis phenomenon in 2008. The solution is, that the government has to increase national consumption, which is an alternative solution to create more jobs to encourage increased demand (Magdalena & Suhatman, 2020). So, in this case, the government has to strengthen national consumption to increase demand. If demand increases, the labor and capital required will increase production. Then, small enterprise development is suitable to be implemented in Indonesia, because this sector is reported to be able to absorb 97% of the total workforce in Indonesia. Small businesses become important for economic development, especially in developing countries because they are considered income generators, job creators, and pioneers of innovative breakthroughs in the economy (Abisuga-Oyekunle et al., 2020). Nevertheless, one of the things that hinder the development of those small businesses is the lack of capital (Mumani, 2014)

At the time of the world economic recession, the economic condition of some countries can relatively remain stable due to the survival of micro, small, and medium enterprises (MSMEs) in the middle of such a situation. Through MSMEs, regional economic growth can be better improved, and the state's revenue from the tax is increased (Febriyantoro & Arisandi, 2018). When MSMEs do not develop, the workforce is not absorbed optimally so unemployment cannot be minimized. The problem is that MSMEs cannot employ workers to increase production when capital is limited. Bank plays an important role in business activity as the source of financing. Inclusiveness of financing access will strongly influence the business sector to do business creation, innovation, and expansion (Yuli & Rofik, 2023). Neger and Udell 1998 found that great access to financing will lead to high growth and profitability in business. Good growth in business implies more job opportunities so fewer people are unemployed.

Islamic banking plays an important role in increasing labor absorption because Islamic banking integrates social values into its system which is based on partnerships that are suitable for financing small and medium businesses (Elasrag, 2016). *Mudarabah* and *musharakah* are examples of partnership-based transactions that are used in financing a business or project. In *mudarabah*, banks act as capital owners and the customers act as fund managers, while in *musharakah*, both customers and banks can provide funds for the business of the project (Salh, 2018). Apart from being interest-free financing and promoting social justice (Chapra, 2011), the profit-and-loss sharing (PLS) nature of Islamic banks minimizes the risk for small entrepreneurs if they experience losses, unlike conventional banking which requires entrepreneurs to bear all losses under any circumstances (Fajri et al., 2022). This social Islamic financing system for small-income entrepreneurs can encourage the development of MSMEs. So, more workers will be optimally absorbed and unemployment will be reduced.

Apart from the role of Islamic banking, the Zakat sector is also an instrument that can support unemployment reduction in Indonesia. Zakat is claimed as a transfer of payment from the rich community to the poor one (Kahf, 1989). Zakat cannot reduce the problem of unemployment unless it is empowered in the form of productive zakat (Elfadhli, 2015). This productive zakat can increase the amount of output through increasing human resources, such as providing educational scholarships, entrepreneurship training, and business capital (Anggraini et al., 2018). According to Syafi Antonio et al. (2021), zakat can address the issues of unemployment in a country in three ways. First of all, zakat can increase labour supply which can further increase national output. Secondly, the zakat fund which is allocated to infrastructure development can create new jobs and increase national income. A rise in the national income will lead to a rise in labor demand. And the last, zakat can increase employment

by keeping labor supply and labor demand in balance. This can be used as a hypothesis, that zakat funds used for business capital can indirectly change unemployed people to become unemployed because they carry out entrepreneurial activities.

According to BAZNAS, in 2022 the zakat collected will reach 22 trillion rupiahs, or a sharp increase of 25882%, from 2003 which was only 68 billion rupiahs. Meanwhile, growth in Islamic banking financing will reach 255.3 trillion in 2022, an increase of 400% from 2003 which was only 5.5 trillion. Based on the description of the data, a question arises which is a research gap, does the growth of zakat funds have an effect on unemployment in Indonesia? How much influence does it have on people's lives in rural and urban areas?

Research discussing the influence of zakat on unemployment in Indonesia is still very limited. Candra et al. (2023) investigated the determinants of unemployment in Indonesia between 2014 and 2020 using path analysis and found that zakat distribution and HDI reduced unemployment in Indonesia. Athoillah (2018) analyzed how zakat affects economic growth, unemployment, and poverty in Java island and revealed that zakat increases economic growth while reducing poverty. However, unemployment is not influenced by zakat. Both studies analyzed zakat's impact on unemployment in Indonesia but did not include Islamic banking as a research variable.

Likewise, research on the effect of bank financing on unemployment is still limited, because it still uses general bank data without distinguishing between Islamic and conventional systems. Using VECM, Azolibe et al. (2022) found that during the period 1991-2018, bank financing was an effective measure in reducing unemployment in South Africa compared to Nigeria. Shabbir et al. (2011) also asserted that an increase in financial sector activities would reduce unemployment through their investigation in Pakistan. Meanwhile, in terms of Islamic bank financing, there are only three studies that are related to unemployment discussion. Khairina et al. (2020) use path analysis in their study on the relationship between Islamic bank performance and labor absorption in the real sector unraveling that Islamic financing significantly increases labor absorption in the real sector in Indonesia. Fajri et al. (2023) further examined Islamic bank financing as a determinant of unemployment in Indonesia using GMM and found that Islamic bank financing reduced national unemployment and urban unemployment. In Turkey, Benbekhti et al. (2021) employed VAR to analyze data between 2009 and 2017 and found that Islamic financing reduced unemployment through its contribution to the labor market.

In the last decade, the downward trend in unemployment is inversely proportional to the increasing trend in Islamic financing and zakat. Regarding the data and problems above, the

focus of this research is to reveal the influence of Islamic bank financing and zakat funds on the number of unemployed in Indonesia. So, this research will be the first research that combines zakat and Islamic banking as a determinant of unemployment. Apart from that, this research also analyzes in more depth how each influences urban and rural areas so that government policy recommendations can be formulated.

This research aims to unravel the influence of Islamic bank performance on unemployment in Indonesia, detailing the impact on urban unemployment and rural unemployment. It further aims to find out the impact of zakat performance on unemployment in Indonesia, detailing the impact on urban unemployment and rural unemployment.

Methods

This study utilized semi-annual data in Indonesia, spanning from the first half of 2007 to the second half of 2022. Three models were constructed in this study to discover the impact of independent variables on unemployment from different areas namely national level, urban areas, and rural areas. The dependent variables are national unemployment (*UNEMP*), urban unemployment (*URBAN*), and rural unemployment (*RURAL*). All these variables are measured by the unemployment rate.

As for the independent variables, the total zakat collection is used as a proxy for zakat performance (*ZAKAT*) and the total financing of Islamic banks represents Islamic banks' performance in channeling funds to the real sectors in Indonesia. In addition, some control variables, namely inflation (*INF*), economic growth (*GDP*), and foreign direct investment (*FDI*) were included in the analysis and proxied by the inflation rate, GDP based on the current local currency unit, and the total value of FDI respectively.

The data on the unemployment rate at the national level, and urban and rural areas was obtained from a statistics agency (BPS). The data on total zakat collection was sourced from the National Zakat Board (BAZNAS) while the data on total financing of Islamic banks in Indonesia was generated from the financial service authority (OJK). As for the control variables, the data on the inflation rate was taken from Bank Indonesia while the data on inflation rate and GDP was generated from BPS.

This paper employed the Autoregressive Distributed Lag (ARDL) method to analyze the data of all variables in the models. This analysis method is selected because the tests can be undertaken regardless of being fully or fractionally integrated and this method is resistant to endogeneity issues with the ability to reveal the relationship between the variables in the long run (Engle & Granger, 1987). In this method, the use of appropriate lags matters to do correction for serial correlation and endogeneity (Pesaran et al., 1999). Apart from that, ARDL is an

appropriate method to estimate data with a small sample size, a minimum of 30 observations (Halicioglu, 2007) and to simultaneously estimate the impact in the short run and long run.

In this research, three models are used to analyze the impacts of independent variables on national unemployment, urban unemployment, and rural unemployment. Those models are as follows:

$$\Delta UNEM_t = \alpha_0 + \beta_1 Ln(ZAKAT)_{t-1} + \beta_2 Ln(FIN)_{t-1} + \beta_3 Ln(GDP)_{t-1} + \beta_4 Ln(FDI)_{t-1} + \beta_5 INF_{t-1} + \sum_{i-1}^{p} \gamma_1 \Delta Ln(ZAKAT)_{t-1} + \sum_{i-0}^{p} \gamma_2 \Delta Ln(FIN)_{t-1} + \sum_{i-0}^{p} \gamma_3 \Delta Ln(GDP)_{t-1} + \sum_{i-0}^{p} \gamma_4 \Delta Ln(FDI)_{t-1} + \sum_{i-0}^{p} \gamma_5 \Delta INF_{t-1} + \mu_t \quad (1)$$

$$\Delta URBAN_t = \alpha_0 + \beta_1 Ln(ZAKAT)_{t-1} + \beta_2 Ln(FIN)_{t-1} + \beta_3 Ln(GDP)_{t-1} + \beta_4 Ln(FDI)_{t-1} + \beta_5 INF_{t-1} + \sum_{i-1}^{p} \gamma_1 \Delta Ln(ZAKAT)_{t-1} + \sum_{i-0}^{p} \gamma_2 \Delta Ln(FIN)_{t-1} + \sum_{i-0}^{p} \gamma_3 \Delta Ln(GDP)_{t-1} + \sum_{i-0}^{p} \gamma_4 \Delta Ln(FDI)_{t-1} + \sum_{i-0}^{p} \gamma_5 \Delta INF_{t-1} + \mu_t \quad (2)$$

$$\Delta RURAL_t = \alpha_0 + \beta_1 Ln(ZAKAT)_{t-1} + \beta_2 Ln(FIN)_{t-1} + \beta_3 Ln(GDP)_{t-1} + \beta_4 Ln(FDI)_{t-1} + \beta_5 INF_{t-1} + \sum_{i-1}^{p} \gamma_1 \Delta Ln(ZAKAT)_{t-1} + \sum_{i-0}^{p} \gamma_2 \Delta Ln(FIN)_{t-1} + \sum_{i-0}^{p} \gamma_3 \Delta Ln(GDP)_{t-1} + \sum_{i-0}^{p} \gamma_4 \Delta Ln(FDI)_{t-1} + \sum_{i-0}^{p} \gamma_5 \Delta INF_{t-1} + \mu_t \quad (3)$$

The analysis stage begins with unit-root tests using the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron test to check the stationarity of the data for all variables in those three models. Afterward, the cointegration test through the ARDL Bound F-test is conducted to investigate the long-run relationship between all the variables in the three models. In terms of the selection of optimal lag length, the Schwarz Bayesian Criterion (SBC) is employed because it has a smaller error than the Akaike Information Criterion (AIC) in all cases (Ma & Jalil, 2008). The estimation results in the short run and the long run are then generated. At the end of the analysis, diagnostic tests comprising of normality test, autocorrelation test, and heteroscedasticity test are done to check the goodness of fit of the models and to ensure relevance of the result for policy recommendation (Kassim, 2016). Following that, tests for the structural stability of all variables are employed which consist of CUSUM and CUSUMQ.

Result and Discussion

Unit Root Test

Unit root tests for stationarity using ADF and Phillips-Perron come with results as displayed in Table 1. The result of the ADF unit root test shows that almost all variables are stationary at first difference regardless of their level of significance, except for economic growth which is stationary at a level only. Since there are variables that are stationary either at the level or at the first difference only, employing ARDL for estimation is the proper action.

Table 1. Result of ADF and Phillips-Perron Tests

Variables	ADF		Phillips-Perron	
	Level	**First Difference**	**Level**	**First Difference**
UNEMP	-3.075598 0.0393**	-8.156432 0.0000***	-4.235126 0.0024***	-8.156432 0.0000***
URBAN	-2.27533 0.1858	-7.231153 0.0000***	-2.473316 0.1314	-7.057823 0.0000***
RURAL	-1.937503 0.3115	-11.94023 0.0000***	-1.477979 0.5312	-11.19847 0.0000***
ZAKAT	-0.648453 0.8438	-6.34068 0.0000***	0.97529 0.9952	-20.054 0.0001***
FIN	-4.932234 0.0004***	-2.712836 0.0836*	-4.246612 0.0023***	-2.712836 0.0836*
GDP	-3.713136 0.01***	-2.660567 0.0931	-3.870556 0.006***	-4.214371 0.0026***
FDI	-1.44047 0.5497	-4.960184 0.0004***	-1.349134 0.5938	-6.091511 0.0000***
INF	-2.489944 0.1275	-4.788961 0.0006***	-2.321106 0.172	-7.403593 0.0000***

***, ** and * show significance level at 1%, 5% and 10% respectively

Bound F-Test Result

Table 2. Result of Bound F-test

Computed F-Statistics	**Model 1**		**Model 2**		**Model 3**	
	F = 5.888069		F = 6.52346		F = 4.255428	
Level of Significance	Critical Bound (k=5)		Critical Bound (k=5)		Critical Bound (k=5)	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
1%	4.134	5.761	4.134	5.761	4.134	5.761
5%	2.91	4.193	2.91	4.193	2.91	4.193
10%	2.407	3.517	2.407	3.517	2.407	3.517

Table 2 displays the Bound F-Test results in the three models which shows that the computed F-Statistics values in Model 1 and Model 2 are greater than the upper critical bound at a 1% level of significance (5.888069 > 5.761, 6.52346 > 4.255428). Meanwhile, in Model 3 the computed F-Statistics values are greater than the upper critical bound at a 5% level of significance (4.255428 > 4.193). These results imply the existence of a long-run relationship among the variables in those three models. This also indicates that zakat collection and Islamic

bank financing have a long-run relationship with unemployment both in urban and rural areas of Indonesia.

Estimation Result in the Long Run

There are three models estimated in this study. Model 1, Model 2, and Model 3 estimate the influence of zakat and Islamic bank financing on national unemployment, urban unemployment, and rural unemployment respectively in Indonesia. The results of estimation in the long run are presented in Table 3.

In Model 1, the p-value of LZAKAT and LGDP is lower than a 1% level of significance (0.0000 < 0.01, 0.0013 < 0.01) while INFLASI is lower than a 10% level of significance (0.0901 < 0.1). This means that zakat collection, economic growth, and inflation have a significant influence on national unemployment. The coefficient values of LZAKAT, LGDP, and INFLASI are 2.846376, -10.06469, and -0.0977 respectively. This implies that in the long run, a 1% increase in zakat collection has raised national unemployment by 2.84%, while a 1% increase in economic growth and inflation has led to a fall in national unemployment by 10.06% and 0.09% respectively. Islamic bank financing and foreign investment do not influence national unemployment since the p-values of LFIN and LFDI are greater than the 10% level of significance.

In Model 2, the p-value of LZAKAT and LFDI is lower than a 1% level of significance (0.0000 < 0.01, 0.0005 < 0.01) while INFLASI is lower than a 10% level of significance (0.0703 < 0.1). This means that in the long run, zakat collection, foreign investment, and inflation have a significant influence on urban unemployment. The coefficient values of LZAKAT, LFDI, and INFLASI are 5.08545, -17.06359, and -0.150625 respectively. This implies that a 1% increase in zakat collection has raised urban unemployment by 5.08%, while a 1% increase in foreign investment and inflation has led to a decrease in urban unemployment by 17.06% and 0.15% respectively. Islamic bank financing and economic growth do not influence national unemployment since the p-values of LFIN and LGDP are greater than the 10% level of significance.

In Model 3, the p-value of LZAKAT and LFDI is lower than a 5% level of significance (0.0454 < 0.05, 0.0226 < 0.05). This means that in the long run, zakat collection and foreign investment have a significant influence on urban unemployment. The coefficient values of LZAKAT and LFDI are 0.819228 and -5.042625 respectively. This implies that a 1% increase in zakat collection has raised rural unemployment by 0.81%, while a 1% increase in foreign investment has led to a decrease in urban unemployment by 5.04%. Islamic bank financing,

economic growth, and inflation do not influence rural unemployment since the p-values of LFIN and LGDP are greater than the 10% level of significance.

Table 3. Results of Estimation in the Long-Run

Variable	Model 1		Model 2		Model 3	
	Coefficient	**P-Value**	**Coefficient**	**P-Value**	**Coefficient**	**P-Value**
LZAKAT	2.846376	**0.0000*** **	5.08545	**0.0000*** **	0.819228	**0.0454** **
LFIN	0.423696	0.7484	1.060725	0.5875	0.79358	0.4705
LGDP	-10.06469	**0.0013*** **	1.173296	0.512	-0.251972	0.8003
LFDI	1.099478	0.3796	-17.06359	**0.0005*** **	-5.042625	**0.0226** **
INFLASI	-0.0977	**0.0901***	-0.150625	**0.0703***	-0.001156	0.9778

***, ** and * show significance level at 1%, 5% and 10% respectively

Estimation Result in the Short Run

The results of estimation in the short run are displayed in Table 4. In Model 1, LFIN is the only variable whose p-value is lower than a 10% level of significance (0.0504 < 0.1). This means that among the independent variables, Islamic bank financing is the only variable that significantly influences national unemployment in the short run. The coefficient value of LFIN is -4.246173 meaning that a 1% increase in Islamic bank financing has reduced national unemployment by 4.24% in the short run. Zakat collection, economic growth, foreign investment, and inflation have no impact on the national unemployment of Indonesia in the short run.

In Model 2, each of LFIN and LZAKAT has a p-value that is lower than a 10% level of significance (0.0657 < 0.1, 0.0607 < 0.1). This means that Islamic bank financing and zakat collection significantly influence urban unemployment in the short run. The coefficient values of LFIN and LZAKAT are -4.794253 and 1.573285 respectively, meaning that a 1% increase in Islamic bank financing has reduced national unemployment by 4.24% in the short run. Economic growth, foreign investment, and inflation have no impact on the urban unemployment of Indonesia in the short run.

In Model 3, LFDI is the only variable whose p-value is lower than a 5% level of significance (0.0138 < 0.05). This means that among the independent variables, foreign investment is the only variable that significantly influences rural unemployment in the short run. The coefficient value of LFDI is -8.047384 meaning that a 1% increase in foreign investment has reduced rural unemployment by 8.04% in the short run. Zakat collection, Islamic bank financing, economic growth, and inflation have no impact on the rural unemployment of Indonesia in the short run.

Table 4. Results of Estimation in the Short Run

Variable	Model 1		Model 2		Model 3	
	Coefficient	**P-Value**	**Coefficient**	**P-Value**	**Coefficient**	**P-Value**
UNEM (-1)	1.13E-01	0.4794	0.227845	0.1189	-0.058337	0.8051
LZAKAT	0.75992	0.2413	1.573285	**0.0607***	0.153736	0.7779
LFIN	-4.246173	**0.0504***	-4.794253	**0.0657***	-2.967424	0.1825
LGDP	3.40E+00	0.2595	0.905966	0.5216	-0.266672	0.7961
LFDI	9.75E-01	0.3939	-17.52529	0.0009	-8.047384	**0.0138****
INFLASI	-8.67E-02	0.101	-0.116306	0.0785	-0.001224	0.9779
C	108.8305	0.0005	158.8631	0.0001	72.95805	0.0035

***, ** and * show significance level at 1%, 5% and 10% respectively

Post-Estimation Test

Post-estimation tests conducted in this study consist of diagnostic tests and stability tests. The result of the diagnostic test is presented in Table 5. The diagnostic test consists of a normality test, serial correlation test, and heteroskedasticity test. It can be seen that the result of the normality test shows that the p-values of all three models are greater than 0.05 which implies that residuals of all the models are normally distributed. In terms of the serial correlation and heteroskedasticity test, the Prob. Chi-Square values of all the models are greater than 0.05 meaning that there is neither serial correlation nor heteroskedasticity in the residuals of all the models.

Table 5. Results of Diagnostic Test

Diagnostic Test	**Model 1**	**Model 2**	**Model 3**
Normality	JB = 3.3413 p-value = 0.1881	JB = 3.0569 p-value = 0.2168	JB = 0.4837 p-value = 0.7851
Serial Correlation	F-statistics = 0.174624 Prob. Chi Square = 0.756	F-statistics = 0.62718 Prob. Chi Square = 0.382	F-statistics = 0.831027 Prob. Chi Square = 0.287
Heteroskedasticity	F-statistics = 1.890724 Prob. Chi Square = 0.727	F-statistics = 1.640758 Prob. Chi Square = 0.709	F-statistics = 1.080347 Prob. Chi Square = 0.959

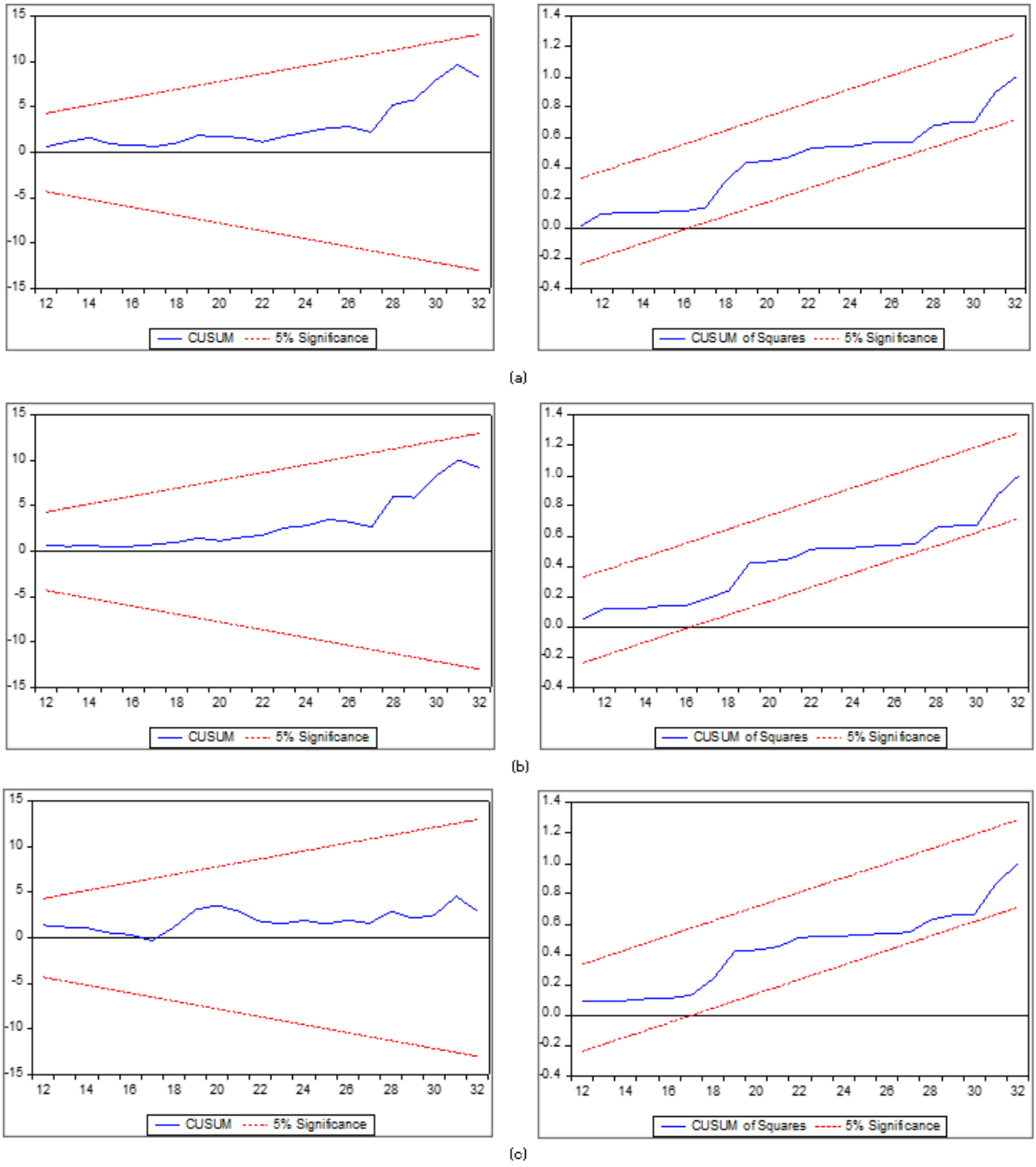

Figure 1. Results of CUSUM and CUSUMQ tests

Meanwhile, the results of the CUSUM and CUSUMQ tests can be seen in Figure 1. The Figure shows that all the plots in both tests lie between the critical bounds of a 5% level of significance. This indicates that all the coefficients in those models are stable and thus the results are applicable to be the basis of policy recommendation (Kassim, 2016).

Discussion

The findings of this paper show that the zakat collection has a significant and positive impact on national unemployment, urban unemployment, and rural unemployment in Indonesia

in the long run. However, it only increases urban unemployment in the short run. Such a positive impact can be explained by Purwatiningsih & Yahya's (2020) findings which state that zakat collection done by BAZNAS Indonesia is less effective than in Malaysia due to weak regulation, lack of trust, and lack of cooperation with private zakat institutions. This result is in line with (Zahra & Auwalin, 2020) who unraveled the positive influence of zakat on unemployment in Indonesia. Zakat collection has no significant relationship with national unemployment and rural unemployment in the short run. This result is similar to Athoillah's (2018) findings when investigating unemployment in Java Island using panel data analysis.

The findings also show that Islamic bank financing significantly reduces national unemployment and urban unemployment in the short run. The findings strengthen research done by Khairina et al. (2020) and Benbekhti et al. (2021) which show the negative effect of Islamic bank financing on unemployment in Indonesia and Turkey respectively. These findings prove that Islamic banks are friendly to small businesses which dominate the labor market in Indonesia leading to better growth of small businesses and more job opportunities (Fajri et al., 2023). Furthermore, Chapra's (2011) opinion that Islamic bank financing has promoted justice is proven. This way more unemployed people will get jobs and therefore unemployment cases can be reduced.

Foreign investment has a positive and significant impact on both urban and rural unemployment in the long run. These findings support what (Folawewo & Adeboje, 2017) found that foreign investment reduced unemployment in West African states. They explained that this negative impact shows the suitability of the investment for the sectors that absorb more domestic workers in urban and rural areas. However, in the short run, foreign investment has no impact on unemployment in all its groups. This means that foreign investment needs a long-term to be able to contribute to the employment generation.

As for inflation and economic growth, they have no impact on national, urban, and rural unemployment. This result strengthens (Mifrahi & Darmawan, 2022) study which reveals no relationship between inflation and unemployment.

Conclusion

Zakat collection has a significant and positive impact on national unemployment, urban unemployment, and rural unemployment in Indonesia in the long run. However, it only increases urban unemployment in the short run. Meanwhile, Islamic bank financing significantly reduces national unemployment and urban unemployment in the short run, however, rural unemployment is not affected. Islamic bank financing does not affect all kinds

of unemployment in the long run. Based on these findings, Islamic bank financing is the best instrument for unemployment reduction in the short term especially in urban areas.

It is suggested that the government increase the performance of Islamic banks through investment funds and strong regulations that allow them to increase financial access to small businesses and eventually decrease unemployment, especially in urban areas. It is also recommended that the government better improve the management of BAZNAS, especially in coordination with private zakat institutions so that it productively distributes zakat and finally can support unemployment reduction, especially in rural areas.

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