Unemployment Rate and Zakat Collection: Empirical Evidence from Malaysia

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Abstract

The COVID-19 pandemic has forced Malaysian Economy into recession, whereby GDP plummeted to negative growth for the first time after the 1998 Asian Financial Crisis. Fiscal and monetary tools are inevitable during this crisis. Businesses are pushed to close shops when a series of Movement Control Orders (MCO) were implemented and causing massive layoffs, a red flag on the unemployment rate and the economy. Zakat, on the other hand, has become a poverty alleviation tool in the Islamic economy landscape and is particularly more relevant during an economic crisis. However, a lack of literature has discussed the impact of macroeconomic indicators on zakat. Therefore, this study is conducted to examine whether the unemployment rate explains the zakat collection trend. Time series data is utilized for the period between 2006 and 2020, and linear regression analysis is conducted. An interesting finding is that the Zakat collection trend by State Islamic Religious Council (SIRCs) and the unemployment rate movement are not statistically significant. This indicates that Zakat collection is not affected by high unemployment in the labor force market and remains strong even during an economic slump, enabled by more digitalization efforts and FinTech adoption.

Introduction

Destruction of a house is inevitable if its pillars are not strong enough to withstand pressure and weight from the inhabitants. It also resembles the five pillars of Islam outlined in divine revelations through the Quran and Hadith more than 1400 years ago to strengthen one's faith. Amongst them is zakat, which came from the root word 'Zakah' which means "increase," "growth," "betterment," "righteousness," "praise," "blessings," "purification," and "commendation," which occurs 30 times in Quran. At the time of Prophet Muhammad (Peace Be Upon Him), since the beginning of Makkah, zakat became voluntary payment, where it was left to the individuals' faith and own conscience to decide how much to give and whom to give it to. Later, after migration to Madina, zakat became an obligation for Muslims. The Quranic verse provides a clear directive, ordering the payment of zakat. Allah has warned those who

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do not give zakat that they will face dire consequences. He says, "O you who believe! Verily, there are many rabbis and monks who devour the wealth of mankind in falsehood a hinder (them) from the way of Allah. And those who hoard up gold and silver and spend it not in the Way of Allah-announce unto them a painful torment" (Quran 9:34).

In this present modern day, zakat remains relevant as a tool to alleviate poverty and uplift the income of the needy, called Asnaf. Zakat fitrah and zakat on wealth are different types of zakat. The latter can be further expanded to income, business profit, savings, investment, pension fund, gold and silver, livestock, and produce of the land, which becomes zakatable when they reach certain Nisab, a minimum wealth or income threshold based on the market price of 85gram gold. Various form of assistance has been invented and designed to better serve the needs of the Asnaf, sourced from zakat. Currently, zakat institutions in Malaysia are set to offer microfinance as part of zakat distribution (Adnan et al., 2021), which is more productive in nature, such as capital injection to start, sustain or expand businesses for microenterprises. Zakat has been one of the financing sources to the underserved segments, which is often tied together with in-kind assistance and entrepreneurship training programs, to break the vicious cycle of poverty (Abai et al., 2020) before eventually becoming the zakat payer itself.

In an economy, there is a term called multiplier effect that signifies a phenomenon causing a larger change in output due to a given change in particular input. Positive effects on aggregate consumption and income of the needy people are shown through the distribution of zakat despite the short-term impact of one-off cash assistance. Therefore, the distribution of zakat should not only be limited to meeting the consumable demands but should be productive in producing regular streams of income (Suprayitno et al., 2013; Mohd Ali et al., 2015) so that it will generate a multiplier effect.

Fiscal tools for economic growth in the light of tax and government revenue are necessary for expansionary and contractionary policy employed during both economic phases. In a recession where major macroeconomic and microeconomic indicators point towards an economic downturn, tax revenue will be used to stimulate government spending. It also applies to Zakat, which can increase the household income of the poor. The COVID-19 pandemic has severely affected the economy worldwide, resulting in the worst performance since Asian Financial Crisis in 1998, and Malaysia is also not spared from facing this. The government's widespread containment measures to ensure the safety of its citizen have taken a toll on the economy, whereby Gross Domestic Product (GDP) for the full year of 2020 recorded -5.6% (1998: -7.4%) after experiencing -17.6% in 2nd Quarter of 2020 (Department of Statistics Malaysia Official Portal,

2021). Businesses, particularly the micro, small and medium enterprises (MSMEs), are the most affected by this event, forcing them to close shops and lay off their workers. Many are unemployed, as MSMEs constitute almost 50% of total employment in the country (SME Corporation Malaysia, n.d.). The unemployment rate spike up to 4.5%, 5.1%, and 5.3% in the year2020, 2nd Quarter of 2020 and May 2020, respectively, as shown in Graph 1. The problem still persists this year, taking into account data in May, which increased back to 4.8% (April: 4.5%) mainly due to movement control orders arising from a huge spike in COVID-19 cases.

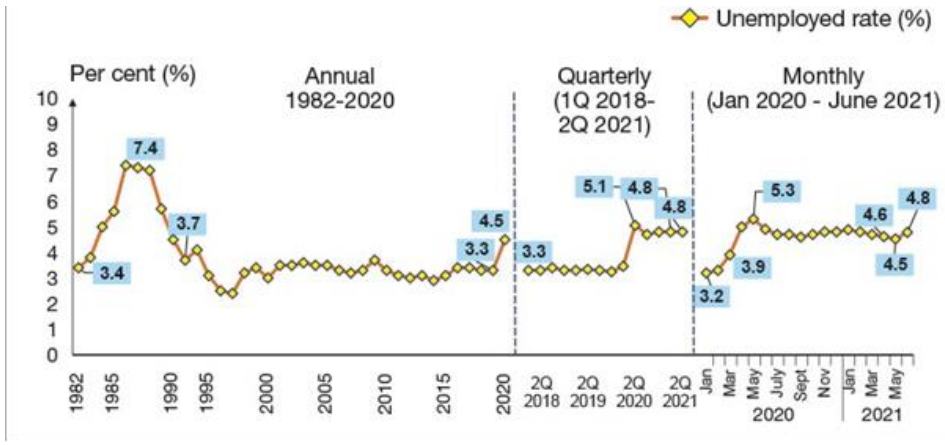

Figure 1: Unemployment rate (%) yearly, quarterly, and monthly - Source: The Edge Market

Literature Review

a) GDP and Unemployment

Empirical studies have examined whether GDP growth affects unemployment. Back in 1962, the negative relationship between cyclical unemployment and output was proven by Arthur Okun based on the US data that is generally known as Okun's law (An et. al, 2017). Time series data from 1970 - 2008 are employed to test the relationship between unemployment and economic growth to estimate Okun's coefficient in Jordan. However, cyclical growth in the economy does not justify the unemployment dilemma in Jordan (Kreishan, 2011), which confirms the finding of An et al. (2017), stating that Okun's law is unfit for low-income and lower-upper-income countries. Furthermore, for the period 1970 – 2008, Jordan is classified as a lower middle-income country as GNI per capita (Atlas Method) stood at USD1,090 to 2,160, with upper bound of income classification USD1,940 and 3,125 respectively (The World Bank n.d.; Fantom & Sirajuddin, 2016). Malaysia, on the other hand, is

in line with Okun's law due to its transition of income classification from lower middle-income to upper middle-income countries (Noor et. al, 2007).

b) Unemployment and Income

Martínez et al. (2001) examine the influence of unemployment on income disparity and poverty in various OECD countries, using Luxembourg Income Study micro-data. The limited effect of unemployment on income distribution in most countries is corroborated, but those that are prone to experiencing poverty are those who are unemployed. Unemployment also accounts for a large part of the increase in earnings inequality in Argentina between 1991 and 1998 (González et al., 2000). The surge in the unemployment rate in Malaysia has decreased the mean monthly household gross income by a negative 10.3% to a record RM7,089 as compared to RM7,901 in 2019 (Department of Statistics Malaysia, 2021a). In Indonesia, the effect of the pandemic has caused a higher income gap (Uyuni et al., 2020).

c) Income and Consumption

Additionally, consumption will also reduce if income reduce. The flattening of consumption depends on which member of the household is affected by the transition to unemployment. It also shows that the decline in consumption continues after the job loss. In this relation, Browning and Crossley (2008) suggest that households cannot fully ensure given that the breadwinner of the household is unemployed. Moreover, the effect lasts for up to two years in the case of long-term unemployment.

d) Consumption and Zakat payment

Even if people still have reached the Nisab, they might postpone zakat payment to cater for current consumption. The zakat fund collection in West Java are positively and significantly influenced by income and consumption (Indika et al., 2020). In a study on zakat payment amongst academicians, lecturers' ability to satisfy the needs of dharuriyyat, hajiyyat, and tahsiniyyat items correlate with their intention to pay zakat (Doktoralina et al., 2017). Earlier studies examined Muslims' behavior towards payment of zakat on income, including demographic factors such as age, marital status, and income which are found to be significant towards zakat payment (Wahid et. al, 2007; Idris, 2006; Sanusi et. al, 2005). Thus, it can be concluded that income level and unemployment rate affect the zakat collection.

Methodology

This quantitative study involves time series data from 2006 to 2020. Data from secondary sources such as journals and information from the website of Jabatan Wakaf, Zakat, and haji (JAWHAR) are adopted. No direct relationship between how

the unemployment rate affects zakat collection has been examined in prior studies, but rather it is the reverse order, the effect of zakat on the unemployment rate, yielding mixed results (Abd Aziz et al., 2019; Mohamed et al., 2019; Antonio, Ali, and Jebel Firdaus, 2021). However, consistent with the severity of the ongoing pandemic-led crisis that sparks the unemployment rate, it has probed further evaluation on the impact of a fiscal tool in the Islamic economy, such as zakat, through changes in socio-economic well-being. It is presumed that the unemployment rate would have a better association with zakat as compared to GDP, but that is too far-fetched from dealing with inequality which was always a concern the economists (Mulok et al., 2012; Cerra, Lama, and Loayza 2021; Kapoor and Debroy 2019). Zakat collection is being tested rather than zakat distribution to reflect a more accurate analysis as utilization for distribution can be less than 100% (JAWHAR, n.d.-a, n.d.-b), and the latter may look into a different area of interest, such as effective zakat distribution. Omar (2020) studies the percentage growth trend of the zakat collection in Selangor based on the gold price, nisab, GDP, and inflation rate. Hence, the dependent variable in this study is ZAKc (Zakat Collection Growth Rate), whereas the independent variable is UN (Unemployment Rate). Correspondingly, the subsequent linear regression version was built and examined to achieve the objectives of this study.

$ZAKc = f(UN)$.....(1)

$ZAKc = \delta 0 + \delta 1 UNt + \varepsilon t$.....(2)

ZAKc: The annual growth of the zakat collection for the selected time series

UNt: Unemployment rate for the selected time series

$\delta 0$, $\delta 1$: Coefficients

εt: Error term

Ho: There is no significant relationship between UNt and ZAKc

Ha: There is a significant relationship between UNt and ZAKc

The data were analyzed via numerous studies techniques, employing correlation, regression, Normal Distribution, Heteroskedasticity, and Serial Correlation LM. It is predicted that there is a significant linear relationship between both variables. Pearson correlation tests the linear relationship between two variables that exist in a bivariate association. Meanwhile, linear regression analysis is utilized to statistically decide on the research hypothesis.

Result and Discussion

a) Correlation

Table 1 portrays the correlational relationship among the variables ZAKc (Zakat Collection Growth) – Dependent variable and UN (Unemployment Rate) - Independent variable. The correlation usually estimates the strength, significance, and orientation of the relationship of the variables tested. As per Table 1, the strength of the relationship between the collection of zakat and the unemployment rate indicates a strong negative linear relationship as the correlation coefficient (r) ranges between − 0.7 and − 1.0 (r: -0.267) (Ratner, 2009). However, the relationship between these two variables is not statistically significant at 0.337 ($p > 0.05$).

Table 1: Correlation Test

		Zakat G	UN
Zakat G	Pearson Correlation	1	-0.267
	Sig. (2-tailed)		0.337
	N	15	15
UN	Pearson Correlation	-0.267	1
	Sig. (2-tailed)	0.337	
	N	15	15

(Author own estimations)

Linear Regression Model

The linear regression results to show the relationship between the Zakat collection and the unemployment rate are illustrated in below Table 2.

Dependent Variable: ZAKAT_G Method: Least Squares

Date: 01/30/22 Time: 16:41

Sample: 2006 2020

Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UN	-5.215181	5.231282	-0.996922	0.3370

C	0.304654	0.175551 1.735415	0.1063
R-squared	0.071021	Mean dependent var	0.130745
Adjusted R-squared	-0.000439	S.D. dependent var	0.076159
S.E. of regression	0.076175	Akaike info criterion	-2.187993
Sum squared resid	0.075435	Schwarz criterion	-2.093586
Log-likelihood	18.40994	Hannan-Quinncriter.	-2.188998
F-statistic	0.993854	Durbin-Watson stat	0.879511
Prob (F-statistic)	0.336998		

Table 2: Linear Regression

(Author own estimations)

According to the results, a unit increase in the UN decreases the ZAKc by around 5.2 units. Hence, a negative association between the unemployment rate and the collection of Zakat is visible for the chosen period. This implies that if the unemployment rate is higher, the Zakat collection decreases by the estimated amount. However, it is not statistically significant at a p-value of 0.337, which is more than 0.05.

The value of R2 is around 0.07 as the model only includes one independent variable. It measures the explanatory power of the observed data, represented by 7%. This is considered as acceptable as there is only one independent variable studied. Case in point, social sciences, including humans' economic behavior, is hard to predict when the different amount of variability is inherently unexplainable. Thus, in normal circumstances, a study that attempts to predict human behavior will tend to have a low R-squared value

Residual Test: Normality Test

It is vital to test the residuals of this model to avoid incorrect reasoning and erroneous conclusions. Thus, creating the necessity to go through normality tests, confirming the normal distribution of the residuals. Thus, the Skewness, Kurtosis, and Jarque-Bera tests will be used for this purpose.

Series: Residuals

Sample 2006 2020

Observations 15

Mean -3.15e-17

Median 0.008296

Maximum	0.156927
Minimum	-0.127906
Std. Dev.	0.073404
Skewness	0.086265
Kurtosis	2.865715
Jarque-Bera	0.029874
Probability	0.98517

Table 4: Histogram – Normality Test

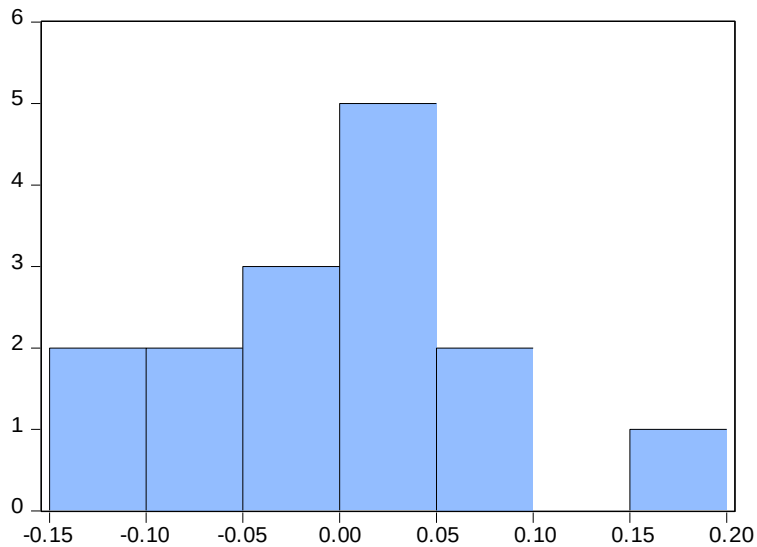

Table 4 demonstrates the normality test of a regression model. The normal distribution of the residuals, which clarifies the relationship between the dependent variable and the independent variables, should be confirmed for it to be a good model. Skewness is less than one while Kurtosis is less than 3 indicates the normality of the data. On the other hand, In the Jarque-Bera test, the null hypothesis of "the residual is normally distributed" is accepted as the corresponding probability value of Jarque-Bera estimate is more than 5% (0.985%). Thus, the alternative hypothesis of "the residual is not normally distributed" is rejected.

Residual Test:

Heteroskedasticity

Table 5 describes the results of the heteroskedasticity test of the model. The null hypothesis of "there is no heteroskedasticity in the residual" cannot be eliminated as the probability value of Chi-Square is more than 5% (p = 59.06%). As a result, the alternative hypothesis of "there is heteroskedasticity in the residuals" can be rejected. Consequently, the error term of this model is homoscedastic, another good feature of the regression model.

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

Table 5: Heteroskedasticity

F-statistic	0.368097	Prob. F (1,13)	0.5545
Obs*R-squared	0.413032	Prob. Chi-Square (1)	0.5204
Scaled explained SS	0.289403	Prob. Chi-Square (1)	0.5906

Residual Test: Serial Correlation

A serial correlation (autocorrelation) problem should not exist in the model. The Breusch- Godfrey Serial Correlation LM test is applied to test the serial correlation of the residuals. The null hypothesis of "there is no serial correlation in the residuals" cannot be rejected as the value of the corresponding probability of Chi-square is more than 5% (19.98%). Therefore, the null hypothesis of "there is no serial correlation in the residual" can be accepted. It is confirmed that there is no serial correlation between the residuals of the model.

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 3 lags

Table 6: Serial Correlation

F-statistic	1.494870	Prob. F (3,10)	0.2750
Obs*R-squared	4.644181	Prob. Chi-Square (3)	0.19

Conclusion

This paper explores the relationship between zakat collection and the unemployment rate using data in Malaysia over the period from 2006 to 2020. In achieving the objective of this research, linear regression and Pearson correlation analysis were employed. It is found that the inverted relationship between the zakat collection and the level of unemployment rate in Malaysia is not statistically significant, indicating the collection of Zakat is still strong despite a spike in the unemployment rate recorded amidst the pandemic. There has been enabled through rapid digitalization transformation and FinTech application of SIRCs in the country, amongst others, through expansion of payment channels to include digital wallet and real-time dashboard on zakat collection and distribution (Azuar, 2021; Nordin et al., 2021; The World Bank, 2020). Nevertheless, Zakat collection growth in 2020 is much lesser than in 2019 (4% vs 12%) due to consideration of the pandemic as the cause of some companies and individuals being unable to pay their zakat (Azuar, 2021).

Future recommendations include further comprehension of measures taken by SIRCs to sustain good Zakat collection despite the unfavorable unemployment rate as a learning point for other Zakat institutions globally.

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