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# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



## The Effect of Zakat toward the Macroeconomic Factors in Malaysia

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### Abstract

Zakat is a determination to purify society from diseases of poverty without distinction of race, ethnicity, and class. Therefore, objective of this study is to investigate the effect of zakat collection on the macroeconomic factors in Malaysia. The macroeconomics factors are poverty, gross domestic product and total unemployment. The time-series data has been used in this study. The data for this study is collected from the world bank data, Pusat Pungutan Zakat-MAIWP. The test that has been used for this study are correlation analysis, ordinary least square, normality test, heteroscedasticity test, serial correlation test, Granger causality test and the Hedrick – Prescott test. The data were analyzed and run by using the statistical software which is Eviews 10. Three regression model has been constructed to the achieved objective for this study. In this study, the dependent variable is poverty (Headcount Index), gross domestic product (GDP) and total unemployment and the independent variable is the collection of zakat in Malaysia. The result shows there is an inverse relationship between zakat and poverty. Meanwhile, there is a positive relationship between zakat, GDP, and the unemployment rate. The policymakers and government of Malaysia could use this study to increase the awareness towards the zakat to help Malaysia to improve the system of zakat and make zakat as the main income factor of Malaysia for the futures.

**Keywords:** Gross Domestic Product, Headcount Index, Malaysia, Poverty, Zakat, Total Unemployment

### Introduction

Within the early improvement of Islamic society, zakat is collected as charges by the state and the finance dispersed to the bunches that require (Surah al-Tawbah: 60). Not at all like a few other commitment zakat as a shape of riches redistribution and welfare of not as it were the desire, but a part of the Islamic law that's upheld by utilizing government arrangement. There are two advancements for zakat to be pertinent to cutting edge legitimate researchers. The primary advancement is a dynamic component in the financial calculation. A few fundamental riches and pay

are exempt from the charge (*nisab*). That number is expected to meet the fundamental consumptive life. The moment innovation could be an assess on the foremost common frame of income within the rural community, within the frame of agricultural and livestock together with charge on capital contributed be inert, such as cash, valuable metals, and others.

Malaysia is categorized under ASEAN developing countries. In the recent year, the rate of poverty is decreasing, total unemployment is increasing and the gross domestic product (GDP) of Malaysia is decreasing year by year. It will become a big factor that makes the economic growth of Malaysia going down if Malaysia is not taking a serious action to alleviate poverty, reduce the total of unemployment and increasing the GDP. Thus, this research is going to show the effect of the collection of zakat towards the macroeconomic factors which is poverty, total unemployment and GDP in Malaysia. The zakat might be a helpful way to alleviate poverty and decreasing the total unemployment while increasing the GDP for the Muslims and Non – Muslim in Malaysia. Collection and dissemination of zakat contain a potential as an instrument poverty reduction over a long time much considered within the writing of Islamic financial matters. Charity is one of the most punctual rebellious were investigated by Muslim researchers and eyewitnesses of the open back. Iqbal (2002) composed a commentary sometime recently it is talked about within the Moment Worldwide Conference on Islamic Financial matters in Islamabad in Walk 1983 which incorporates a point by point portrayal and mapping the scope and zakat within the economy-related with the moral standards of Islam. Zakat can be considered as an income factor for a country (Nisthar and Nufile, 2017; Ahmed, Khalid, Ammar, & Shah, 2017). Meanwhile, poverty and unemployment can be a serious problem for a country; it can affect the country from being developing. (Stevans and Sessions, 2008).

Sarae (2012) investigates the best way to reduce the phenomenon of unemployment is the exploit zakat in the activating role of the three elements of production (labour capital and natural resources). Zakat is working on the mixture between the two elements of production “labour and capital” in the verification process where the interest of owners and worker speculators. Hence, in this research only going to use the collection of zakat data to examine if it effects on the unemployment rate. In a sum, this is only focusing on examine if the zakat can alleviate poverty, reduce the total unemployment and increase the GDP between the years of 1993 until 2017 in Malaysia. This research will develop the knowledge of the effect of zakat towards the macroeconomic factors which is poverty, unemployment rate and GDP. Hence, another researcher that conducts a study that related to this topic can use it as references. The researcher can do improvement of this topic and using a longer period time and add others macro or microeconomics factor that can be affected by the zakat. This study itself is referred to the past study where this study has been done in Indonesia where it investigates the relationship collection of zakat and GDP in alleviating poverty.

### **Literature Review**

Zakat is a determination to purify society from diseases of poverty without distinction of race, ethnicity and class. And more importantly, is the commitment of a Muslim charity, in society. Wahid *et al.* (2004) characterize that zakat may be an obligatory instalment on the portion of Muslims as a share to destitute. Although that it could be a devout commitment, zakat also contains an assortment of financial and social consequences. In early empirical literature on the welfare potential of *Infaq*

(Charity) to lighten destitution in Pakistan, (Malik, Hussain, and Shirazi, 1994) utilize small scale – information to set up that *Infaq* (Charity) does have a critical effect on decreasing poverty among society. Furthermore, Azam et al. (2014) found out that Pakistan built up that zakat altogether improves the welfare of the families. Besides that, (Akram and Afzal, 2014) the inquire about from Pakistan, discover out that Zakat dispensing among the needy, penniless down and out, vagrants and dowagers had played a noteworthy part in decreasing poverty. Result of this investigate appear that there's a negative relationship between poverty and zakat distribution, both within the brief and long run.

Suprayitno *et al.* (2013) discover that zakat distribution has a positive impact on society, but little effect on total utilization. Thus, the distribution of zakat should not be constrained by the need to use alone but should be more involved forms of financial assistance that can create an endless stream of such salary to zakat beneficiaries. Meanwhile, Abdelmawla (2014) asserted, according to his studies in Sudan that zakat was able to reduce the rate of poverty and act as an important intrigue in the economy of the country. In his study, he applied the Ordinary Least Squares (OLS) technique, the results of this study found out there is a significant relationship between the zakat and educational attainment in reducing poverty in Sudan. The versatility of the head includes file with deference trades instructive accomplishment and zakat are assessed at (-0.94) and (-0.26), separately. The examination prescribes rising the instructive achievement rates and enhancing the nature of training through expanding consumption in instruction at all dimensions, alongside the centre of grown-up education classes. Expanding the rate spent on the poor out of aggregate zakat reserves is exceptionally prescribed to diminish disparity in the circulation of pay. Salary support ought to especially be in favours of the populace with uncommon requirements (Abdelmawla, 2014; Ahmed, Majid, & Zin, 2016).

Raimi *et al.* (2014) develop a faith-based model (FBM) by employing a subjective inquire about the strategy by coordination corporate social responsibility (CSR), *waqf* and zakat framework to complement the conventional poverty reduction models. Meanwhile, Abdelbaki (2015) employs the generalized method of moment (GMM) for the period 2011 – 2014 of 14 Malaysian states and examined the impact of zakat on poverty in Malaysia. The result of this study found out that Zakat is significantly reduced both poverty and hardcore poverty. Besides that, Suheera *et al.* (2015) aiming to discover out the part of zakat in killing the nature of poverty in Nintavur divisional secretariat division in Sri Lanka by utilizing subjective and quantitative information collected for the periods of 2010 and 2014. The strategy they utilized in them ponder was a clear examination by utilizing both essential and auxiliary information sources. They found that the collection of zakat played a major part in poverty decline. This investigates suggested that the individuals ought to be mindful of the collection of zakat, the implantation of collective zakat, the significance of preparing and expertise advancement to make strides the collection zakat for making more viable way to diminish the nature of poverty.

Lessy (2013) studied on beneficiary at Rumah Zakat institution in Yogyakarta, Indonesia by utilizing the subjective strategy of pondering. Collection of information of this investigate is from semi-structured interviews among the zakat beneficiaries. The result finds out that zakat and zakat intrigued free credit enabled the beneficiaries within the to inquire about are and they earned salaries over the destitution line. All the zakat collection significantly contributed to a noteworthy

positive effect on their domestic economies, social lives and sound condition. In addition, the same research Lessy (2009) analyzed the parts of Rumah Zakat Indonesia (RZI) as lessening the poverty in Indonesia by utilizing graphics strategies. The auxiliary data is been utilized in this investigation in accomplishing the objective of pondering. This investigates concluded that private zakat organizations actualized different endeavours to advance the welfare of individuals in Indonesia in lessening poverty. This investigates moreover found out that the government of Indonesia required Acts to create beyond any doubt the control of private zakat organizations to be beneath the control of the government. This investigates suggest to the private zakat organization and government of Indonesia ought to work together instead of challenging each other (Lessy, 2016). Meanwhile, according to Nisthar and Nufile (2017) in the latest which is two last years, find out the there is a significant relationship between Head Count Index (HCI) and the collection of zakat in Indonesia in the year of BAZNAZ 2017 at 5% level of significance. The result predicts that every one per cent increase in zakat there will be a decrease in HCI by 5.5 units.

The increase in zakat payments is indirectly believed to increase the growth of the GDP and to increase the Bumiputera economy. The influence of zakat in the economy can increase people's purchasing power, increase the productivity of the company which affects the absorption of labour and state income from corporate tax. According to Zangeneh *et al.* (1995) defines a neoclassical macroeconomics show for an intrigued free financial matters framework. This inquiry about finds out the rules of conduct for Muslims in an Islamic financial framework are distinctive from those within the non-Islamic financial frameworks, result show appears that saving and venture don't fundamentally drop in an Islamic financial framework is practical and the show gives interesting arrangements for income (GDP), employment, and prices. Meanwhile, Metwally (1983) characterize that zakat use can increment the total utilization since the negligible penchant to expend of the zakat payers is lower than that of zakat beneficiaries. This suggests that the zakat consumption contains a part within the national pay assurance; the higher the zakat expenditure the higher the increase equilibrium output. Furthermore, Tahir (1989) look at to creates and presents zakat in an Islamic macroeconomic demonstrate centring on the assurance of total yield-related to the degree of disparities in an Islamic economy. This inquires about characterize that the total yield depends on independent consumption, wage dissemination and zakat streams. Awad (1989) pushed a zakat-based assess structure to fortify development, stabilize the economy, and advanced social cohesion.

Mahat & Warokka (2013) clarify that Muslim countries' governments should to truly pay consideration to optimize the utilization of zakat as the source of venture stores for financial development and advancement, which is generally accepted that zakat as the source of speculation reserves for financial equity and impartial dispersion of riches. Based on the Yusoff (2011), zakat has a positive impact on the financial development in Malaysia whereas agreement to Azam *et al.* (2015) zakat can increment success a family and contribute to financial development in Pakistan. Meanwhile, Sarae (2012), investigated finds out that the most perfect to way diminish the phenomenon of unemployment is the misuse zakat in enacting the part of the three components of generation (labour capital and natural resources). Zakat is working on the blend between the two components of a generation "labour and capital" within the confirmation handle where the interface of proprietors and specialists' examiners. Consequently, zakat can contribute to finding work by

looking for the implies of generation, speculation or reinvest that. The third component is normal assets that are specifically related to the Zakat Rikaz.

### Research Methodology

The main objective of this research is to comparative relationship contribution of the collection of zakat and GDP to the unemployment rate and poverty in Selangor. The data used in this study is time series which have been collected from the world bank data, Pusat Pungutan Zakat-MAIWP official website and the department of the statistic of Malaysia. The independent variable of this study is zakat and dependent variables are poverty, GDP and total unemployment (macroeconomic factor). Accordingly, there are four models that have been constructed and tested for this study. The time period for model 1 is only for 6 years were from 2012 until 2017. Meanwhile, for model 2 and 3, the time period is for 25 years where it started from 1993 until 2017. The model of this study is shown below:

$$\text{Model 01: } HCI = \beta_0 + \beta_1 ZKT + \varepsilon_1$$

$$\text{Model 02: } GDP = \beta_0 + \beta_1 ZKT + \varepsilon_1$$

$$\text{Model 03: } URT = \beta_0 + \beta_1 ZKT + \varepsilon_1$$

Where:

*HCI* = Head Count Index

*ZKT* = Collection of Zakat in Malaysia

*GDP* = Gross Domestic Product

*URT* = Total Unemployment

$\beta_0$  = Coefficients

This research study is being analyzed empirically with E-views 10. E-views 10 is a program designed for the performance and implementation of complicated testing that is necessary to predict the future trends of this study or related trial. The software E-Views 10 is a tool which is used to evaluate the regression model by many econometricians and economists. E-views 10 is used in descriptive analysis and diagnostic testing. E-views 10 software is used to run tests such as Ordinary Least Squares (OLS), Normality test (JB), Heteroscedasticity test (BP), Serial Correlation (BG), Granger-Causality, and Hodrick-Prescott (HP). Accordance with the objectives of this research, the hypothesis used to be formed:

$H_1$ : There is a significant relationship between HCI with ZKT

$H_2$ : There is a significant relationship between HCI with GDP

$H_3$ : There is a significant relationship between UR with ZKT

$H_4$ : There is a significant relationship between UR with GDP

**Data Analysis and Findings**

**Model 1: Result (LHCI = LZKT)**

**Table-1.** The result of correlation analysis

<b>Covariance analysis: Ordinary</b>		
Observation = 6		
Variables	LZKT	LHCI
LZKT	1.0000	
	-----	
	-----	
LHCI	-0.7855	1.0000
	-2.5385	-----
	0.0641*	-----
Significance Level: ***(0.01),**(0.05),*(0.10)		

Based on table 1, the correlation between the LZKT with LHCI is significant at 10% level of significance (0.0641 < 0.1). The LZKT and LPOV have a negative relationship between it. There is a moderately high negative correlation between LZKT and LPOV. This finding is similar to Nisthar and Nufile (2017).

**Table-2.** The result of Ordinary Least Square

<b>Ordinary Least Square</b>				
Dependent Variable: LHCI				
Variables	Coefficient	Standard Error	T-statics	Prob.
C	98.98887	39.26612	2.520974	0.0653
LZKT	-4.64374	1.829327	-2.5385	0.0641
R <sup>2</sup>	0.617004	F-statistics	6.443961	
Adjusted R <sup>2</sup>	0.521254	Prob (F-Stat)	0.064083	
Observation = 6				

Table 2 displays the regression result of model 1 which explain the relationship between the dependent variables which is LHCI (Log Headcount Index) and the independent variables LZKT (Log Zakat Collection). Based on table 2, the regression model can be defined:

$$LHCI = 98.989 - 4.644LZKT$$

Corresponding to the table 2, the probability of the LZKT is 0.0641, this shows that LZKT and LHCI has a significant relationship. It is because the probability is below the significance level which is 90% (0.0641 < 0.1). If the probability is below 0.1 it defines that the null hypothesis is been rejected. The result obtained is the same as the (Nisthar & Nufile, 2017), where the research found there is a

significant relationship between the collection of Zakat in Indonesia and the Head Count Index (Poverty). Moreover, Abdelmawla (2014) also apply the ordinary least square method found out there is a significant relationship between the zakat and educational attainment in reducing poverty in Sudan.

The result also defines that one per cent of the increase in the Zakat Collection of Malaysia (LZKT), the Headcount Index (LHCI) will decrease by 4.644 per cent. As a result, the Zakat Collection of Malaysia (LZKT) and Headcount Index (LHCI) have an inverse relationship between it. It indicates that when the collection of zakat is increased, the Headcount Index will be decreased. This is supported by the research that has been done in Indonesia (Nisthar & Nufile, 2017), this research found out that there is an inverse relationship between the Headcount Index and the collection of zakat in Indonesia.

Moreover, based on table 2 for the estimated model, the R2 is 0.617 (61.7%), it means that the goodness of fit of the estimated regression line is represented by 61.7 per cent. It defines that 61.7% of the variance of the dependent variable is explained by the independent variable – Zakat Collection of Malaysia. The balance of 38.3% of the dependent variable – Head Count Index is explained by the external factors other than the zakat collection. Zakat collection the internal factor can influence the dependent variable – Head Count Index (LHCI) by 61.7%. In conclusion, it explained that the estimated regression line of model 1 is fitted moderately.

**Table-3.** Shows the result of the diagnostic test

<b>Diagnostic Test</b>	<b>Probability</b>
Normality Test	0.813338*
Heteroskedasticity Test	0.2467*
Serial Correlation Test	0.7787*

Table 3 shows the result of the normality test model 1. A good model should be the error term is normally distributed. Based on the probability of the Normality test, it shows that it is higher than the 90% significance level ( $0.8133 > 0.1$ ). It identifies that for model 1 the null hypothesis is not been rejected. Hence, the error term for the model 1 is normally distributed. Thus, the model 1 pass the third assumption of CLRM which is zero mean of the error term. In conclusion, it shows a good sign of model 1.

Table 4 shows the result of the Heteroskedasticity test. Based on the table, the result shows the probability than 10% significance value ( $0.2647 > 0.1$ ). Thus, the null hypothesis of “there is no heteroskedasticity in the residual” cannot be rejected. Hence, the trend of the residues of Model 1 is homoskedasticity.

Table 3 displays the result of the Serial Correlation test. Based on the table, the result displays the probability is more than 10% significance level ( $0.7787 > 0.1$ ). Hence, the null hypothesis “there is no serial correlation in the residual” cannot be rejected; however, we accept the null hypothesis. Therefore, there is no serial correlation in the model 1.



**Table-4.** Shows the result of Granger Causality Test

Pairwise Granger Causality Test		
Null Hypothesis:	F-statistic	Prob
LZKT does not Granger Cause LHCI	4.22778	0.1761
LHCI does not Granger Cause LZKT	27.2674	0.0348

Table 4 explains the causal relationship between the collection of Zakat and Headcount Index. Based on the table, the null hypothesis “LZKT does not Granger Cause LHCI” is not rejected, rather it is accepted at a 10% level of significance ( $0.1761 > 0.1$ ). Hence, the collection of Zakat cannot cause the Headcount Index. Next, the null hypothesis of “LHCI does not Granger cause LZKT” is rejected, it been rejected because the probability is smaller the 5% level of significance ( $0.0024 < 0.05$ ). Thus, Headcount Index can cause the collection of zakat.

**Figure-1.** Trend and Fluctuation of LHCI

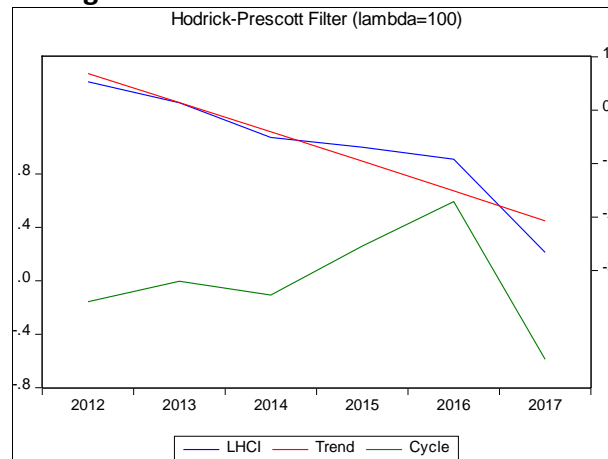


Figure 1 illustrates the Headcount Index has been run on Hedrick – Prescott shows the trend and economic cycle. The trend of the Head count index shows that the Headcount Index drastically decrease from the year 2012 until 2017. The cycle of Headcount Index over the considered time series of LHCI accompanies similarly with the considerable trend of LHCI. Moreover, the trend of this time series is considerably stochastic, not a deterministic. Hence, there are considerably fewer numbers of structural breaks in this time series. In the long run, the shape of HCI is downward sloping.

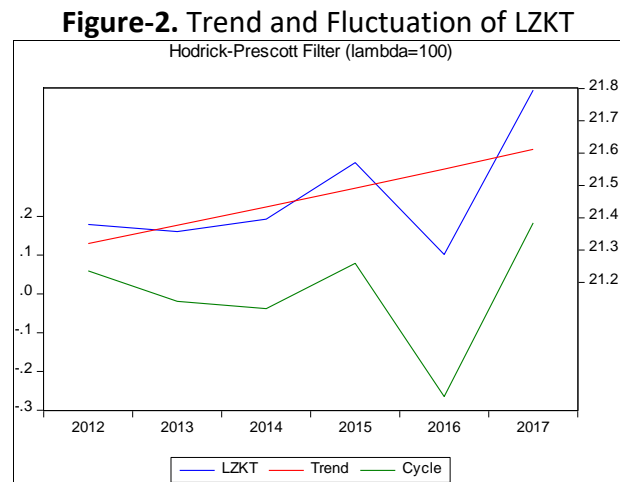


Figure 2 explains the collection of zakat has been run on Hedrick – Prescott show the trend and economic cycle. The trend of the zakat collection increase year by year from 2012 until 2017. The cycle of the collection of zakat over the considered time series of the data is very less as the cycle of the time series of the collection of zakat accompanies similarly with the trend of collection of zakat. The trend of these times is stochastic, not deterministic. Consequently, there are fewer numbers of structural breaks in this time series. In the long run, the trend of collection of zakat is upward sloping.

**Correlation Analysis for Model 2 & 3**

**Table-5. Correlation Analysis Results**

Covariance Analysis: Ordinary			
Observation = 25			
Variables	LZKT	LURT	LGDP
LZKT	1.0000		
	-----		
	-----		
LURT	0.8362	1.0000	
	7.3129	-----	
	0***	-----	
LGDP	0.9945	0.8341	1.0000
	45.5462	7.2525	-----
	0***	0***	-----
Significance Level : ***(0.01),**(0.05),*(0.10)			

From table 5 there is a significant relationship between the LZKT with the LURT and LGDP at 1% level of significant (0.000 < 0.01). Both relationships have a high positive correlation between it.

Where the correlation between the LZKT and LURT is at 83.6% (0.8362). Meanwhile, LZKT and LGDP correlation are at 99.45% (0.9945).

Besides, there is also a significant relationship between the dependent variables which LURT and LGDP at 1% level of significance ( $0.000 < 0.01$ ). The correlation between the LURT and LGDP is highly correlated at 83.41% (0.8341).

### **Result for Model 2 (LGDP = LZKT)**

**Table-6. Ordinary Least Square Result**

<b>Ordinary Least Square</b>				
Dependent Variable: LGDP				
Variables	Coefficient	Standard Error	T-statics	Prob.
C	15.25568	0.257728	59.19294	0
LZKT	0.581525	0.012768	45.54615	0
R <sup>2</sup>	0.989034	F-statistics	2074.452	
Adjusted R <sup>2</sup>	0.988558	Prob (F-Stat)	0	
Observation = 25				

Table 6 shows the regression result of model 2 which explain the relationship between the dependent variables which is LGDP (Log Gross Domestic Product) and the independent variables LZKT (Log Zakat Collection). Based on table 6, the regression model can be defined:

$$\text{LGDP} = 15.26 + 0.58\text{LZKT}$$

According to table 6, the probability of the LZKT is 0.0000, this shown that LZKT and LGDP has a significant relationship. It is because the probability is below the significance level which is 95% ( $0.000 < 0.05$ ). If the probability is below 0.05 it means that the null hypothesis is rejected. The result also defines that one per cent of the increase in the Zakat Collection of Malaysia (LZKT), the Gross Domestic Product (LGDP) will increase by 0.58 per cent. As a result, the Zakat Collection of Malaysia (LZKT) and Gross Domestic Product (LGDP) have a positive relationship between it. It indicates that when the collection of zakat is increased, the Gross Domestic Product will also be increased.

Moreover, based on table 6 for the estimated model, the R<sup>2</sup> is 0.989 (98.9%), it means that the goodness of fit of the estimated regression line is represented by 98.9 per cent. It defines that 98.9% of the variance of the dependent variable is explained by the independent variable – Zakat Collection of Malaysia. The balance of 1.1% of the dependent variable – Gross Domestic Product is explained by the external factors other than the Zakat collection. Zakat collection the internal factor can influence the dependent variable – Gross Domestic Product (LGDP) by 98.9%. In conclusion, it explained that the estimated regression line of model 01 is fitted greatly.

**Table-7.** Diagnostic Test Result

<b>Diagnostic Test</b>	<b>Probability</b>
Normality Test	0.0196787***
Heteroskedasticity Test	0.2241*
Serial Correlation Test	0.3597*

Table 7 shows the normality test model 2. A good model should be the residual is normally distributed. Based on the probability of the Normality test, it shows that it is higher than the 99% significance level ( $0.0196 > 0.01$ ). It identifies that for model 2 the null hypothesis is not been rejected. Due to that the residual for the model 2 is normally distributed. Eventually, the model 2 passes the third assumption of CLRM which is zero mean of the error term. In conclusion, it shows a good sign of model 2.

Table 7 defines the result of the heteroskedasticity test of model 2. Based on probability chi-square for observed R2 the null hypothesis cannot be rejected at a 90% significance level ( $0.2241 > 0.1$ ). Hence, the model 2 trend residuals are homoskedasticity which is equal variance. Model 2 is surpassing the fourth assumption of CLRM which is an equal variance of the error term.

Table 7 shows the result of serial correlation for model 2. The value of the equivalent probability of Observed R2 is more than the significance level of 90% ( $0.3597 > 0.1$ ). Hence, the null hypothesis "there is no serial correlation in the residuals" is not been rejected. Thus, there is no serial correlation in the model 2. The model 2 surpass the fifth assumption of CLRM which is there is no autocorrelation between error term.

**Result Model 3 (LURT = LZKT)**

**Table-8. Ordinary Least Square Results**

<b>Ordinary Least Square</b>				
Dependent Variable: LURT				
Variables	Coefficient	Standard Error	T-statics	Prob.
C	9.198696	0.488774	18.81995	0
LZKT	0.177073	0.024214	7.312875	0
R <sup>2</sup>	0.699260	F-statistics	53.47814	
Adjusted R <sup>2</sup>	0.686185	Prob (F-Stat)	0.064083	
Observation = 25				

Table 8 shows the ordinary least square result of model 3 which explain the relationship between the dependent variables which is LURT (Log Total Unemployment) and the independent variables LZKT (Log Zakat Collection). Based on table 8, the regression model can be defined:

$$LURT = 9.198 + 0.177LZKT$$

According to table 8, the probability of the LZKT is 0.0000, this shown that LZKT and LHCI has a significant relationship. It is because the probability is below the significance level which is 95% (0.000 < 0.05). If the probability is below 0.05 it means that the null hypothesis is rejected. The result also defines that one per cent of the increase in the Zakat Collection of Malaysia (LZKT), Total Unemployment (LURT) will increase by 0.177 per cent. As a result, the Zakat Collection of Malaysia (LZKT) and Total Unemployment (LURT) have a positive relationship between it. It indicates that when the collection of zakat is increased, the total unemployment rate will also be increased.

In addition, based on table 8 for the estimated model, the R2 is 0.699 (69.9%), it means that the goodness of fit of the estimated regression line is represented by 69.9 per cent. It defines that 69.9% of the variance of the dependent variable is explained by the independent variable – Zakat Collection of Malaysia. The balance of 30.1% of the dependent variable – Total Unemployment is explained by the external factors other than the Zakat collection. The internal factor (Zakat Collection) can influence the dependent variable (LURT) by 69.9%. In conclusion, it explained that the estimated regression line of model 03 is fitted highly moderated.

**Table-9. Diagnostic test Result**

<b>Diagnostic Test</b>	<b>Probability</b>
Normality Test	0.548528
Heteroskedasticity Test	0.0323
Serial Correlation Test	0.0139

Table 9 shows the normality test model 3. A good model should be the error term is normally distributed. Based on the probability of the Normality test, it shows that it is higher than the 90% significance level (0.5485 > 0.1). It identifies that for model 3 the null hypothesis “the error term is

normally distributed” is not been rejected. Thus, the error term for the model 3 is normally distributed. Eventually, the model 3 also pass the third assumption of CLRM which is zero mean of the error term. In conclusion, model 3 shows a good sign.

Table 9 defines the result of the Heteroskedasticity test. Based on the table, the result shows the probability that aligns with the observed R2 is more than 1% significance value ( $0.0321 > 0.01$ ). Hence, the null hypothesis of “there is no heteroskedasticity in the residual” cannot be rejected. Therefore, the trend of the residual of model 3 is homoskedasticity.

Table 9 illustrates the Serial Correlation test result. Based on the table, the null hypothesis “there is no serial correlation in the residuals” is not been rejected. It is because the probability chi-square (1) is higher than 99% significant level ( $0.0139 > 0.01$ ). Hence, in model 3 residuals there is no serial correlation on it.

### **Granger Causality Model 2 & 3**

**Table-10.** Granger Causality Result

<b>Pairwise Granger Causality Test</b>		
Null Hypothesis:	F-statistic	Prob
LGDP does not Granger Cause LURT	9.94135	0.0048***
LURT does not Granger Cause LGDP	5.25513	0.0323**
LZKT does not Granger Cause LURT	9.47900	0.0057***
LURT does not Granger Cause LZKT	0.87254	0.3609
LZKT does not Granger Cause LGDP	0.08991	0.7672
LGDP does not Granger Cause LZKT	11.8978	0.0024***
Significance Level : ***(0.01),**(0.05),*(0.10)		

Table 10 describes the causal relationship between the collection of Zakat, Total Unemployment Rate, and Gross Domestic Product. Refers to table 10, the null hypothesis “LGDP does not Granger cause LURT” can be rejected, because the probability is lower than 1% level of significance ( $0.0048 < 0.01$ ). Hence, the gross domestic product can cause the total unemployment rate. Next, null hypothesis “LURT does not Granger Cause” can be rejected, because the probability is lower than 5% significance level ( $0.0323 < 0.05$ ). Thus, the total unemployment rate can granger cause gross domestic product. In other words, LURT and LGDP had a bi-directional relationship.

Furthermore, the null hypothesis “LZKT does not Granger Cause LURT” can be rejected, it is because the probability is lower than 1% level of significance ( $0.0057 < 0.01$ ). Accordingly, the collection of zakat can cause the total unemployment rate. Meanwhile, the null hypothesis “LURT does not Granger Cause LZKT” cannot be rejected, it is because the probability is more than the 10% significance level ( $0.3609 > 0.1$ ). So, the total unemployment rate is no granger cause the collection of zakat. In other words, LZKT and LURT had a unidirectional causality.

Lastly, the null hypothesis “LZKT does not Granger Cause LGDP” is not rejected, rather it is accepted at a higher 10% level of significance ( $0.7672 > 0.1$ ). Hence, the collection of Zakat cannot cause the Gross Domestic Product. Next, the null hypothesis of “LGDP does not Granger cause LZKT” is rejected, it been rejected because the probability is smaller the 1% level of significance

( $0.0024 < 0.01$ ). Thus, Gross Domestic can cause the collection of Zakat. LGDP and LZKT also had unidirectional causality.

**The Hedrick – Prescott (Model 2 & 3)**

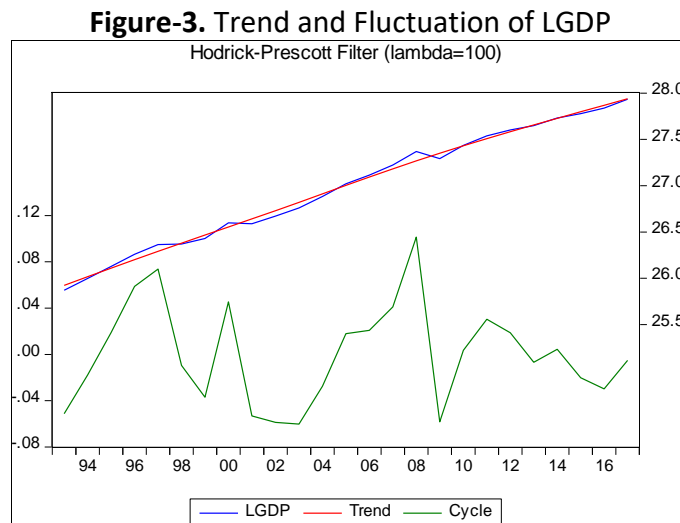


Figure 3 displays the trend and fluctuations of LGDP (Gross Domestic Product) over the time period. The fluctuation of the gross domestic over the considered time series of the data is very less as the cycle of the time series of the gross domestic product accompanies similarly with the trend of gross domestic product. Based on the figure, the trend of this times series is stochastic, not deterministic. Hence, there are fewer numbers of structural breaks in the times series. For the long run, the trend of gross domestic product is soaring upwards.

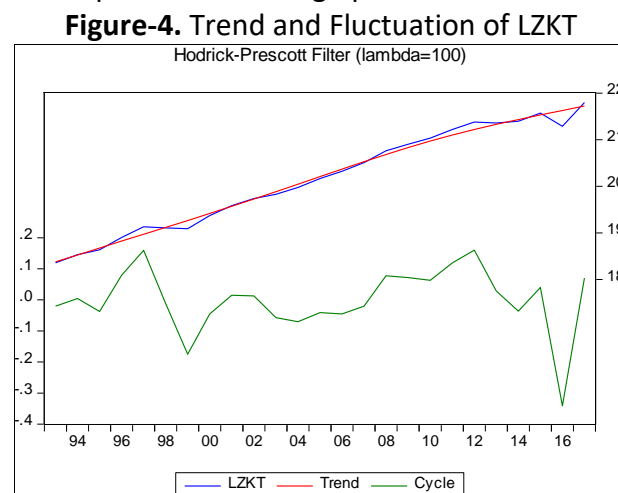


Figure 4 illustrates the trend and fluctuations of the collection of zakat over the time period. The cycle of the collection of zakat over the considered time series of the data is very less as the cycle of the time series of the collection of zakat accompanies similarly with the trend of collection of zakat.

The trend of these times is stochastic, not deterministic. Consequently, there are fewer numbers of structural breaks in this time series. In the long run, the trend of collection of zakat is soaring upwards.

**Figure-5. Trend and Fluctuation of LURT**

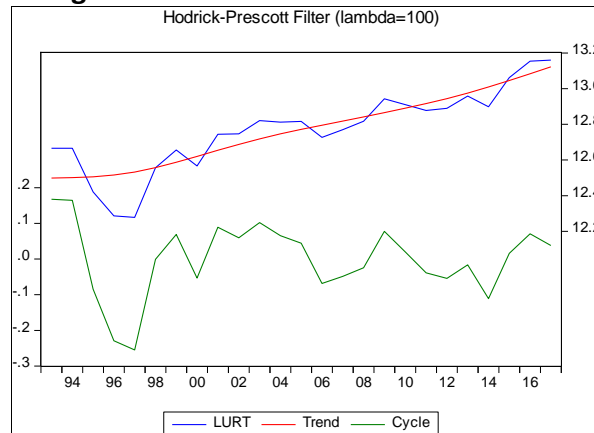


Figure 5 shows the trend and fluctuations in the total unemployment rate over the time period. The variances (cycle) if the total unemployment over the considered time series of the data is as less as the cycle of the time series of the total unemployment rate accompanies similarly with the trend of the total unemployment rate. The total unemployment rate time series data is stochastic. So, there are fewer numbers of structural breaks in the time series. In the long run, the total unemployment rate is upward sloping.

**Summary Hypotheses**

**Table-11. Summary of the hypothesis**

Hypotheses	Results	Supported/Not Supported
H1: There is a significant relationship between the collection of Zakat and poverty (HCI)	Negative significant	Supported
H2: There is a significant relationship between the collection of Zakat and the gross domestic product	Negative significant	Supported
H3: There is a significant relationship between the collection of Zakat and total unemployment	Positive significant	Supported

**Conclusions**

This study has been done to examine the relationship between the zakat collection and the macroeconomic factors which is poverty, gross domestic product, and total unemployment in Malaysia. The data set that has been using for the relationship between the zakat collection and poverty are between 2012 to 2017. However, the relationship between the zakat collection with GDP



and unemployment is between 1993 until 2017. This study has applied the ordinary least square method and correlation to test such a relationship to achieve the research objectives.

Based on the correlation analysis, zakat collection has a significant relationship between Headcount Index (poverty). The relationship between the two variables is negative and highly moderate correlated. Meanwhile, based on the ordinary least define that one per cent of the increase in the Zakat Collection of Malaysia, the Headcount Index will decrease by 4.644%. Hence, LZKT and LHCI have an inverse relationship. In other, the first objective of this study is been achieved which is "to investigate the effect of the zakat collection towards the poverty". So, based on the result of OLS zakat collection can alleviate poverty in Malaysia.

Additionally, the correlation analysis has shown that there is a significant relationship between LZKT and LGDP. The correlation between LZKT and LGDP is a highly positive correlation between it. Meanwhile, based on OLS the result showed that LZKT and LGDP there is a positive significant relationship between the zakat collection in Malaysia and the gross domestic product. Thus, it defines that if zakat collection of Malaysia increases by 1 per cent the gross domestic product also will increase by 0.58%. So, it means this study second objective also has been achieved; whereby, the second objective is "to examine the linkage of zakat collection and gross domestic product". The result shows there is a significantly positive relationship between the zakat and gross domestic product. Hence, Malaysia needs to reconsider to apply zakat as income factor for the gross domestic product to be increased.

Lastly, the relationship between the zakat collection and total unemployment based on the correlation analysis is a positive significant relationship. The correlation between LZKT and LURT is a high positive correlation. Furthermore, based on OLS the relationship between the LZKT and LURT also positive. The result shows that a one per cent increase in zakat collection, the total unemployment will be increased by 0.177. Thus, the thirds objective also achieved; where the third objective is "to study the relationship between the zakat collection and the total unemployment". However, the result shows that zakat collection will increase the total unemployment in Malaysia. So, Malaysia zakat organization needs to improve the system of zakat collection and distribution for reducing the total unemployment in Malaysia.

Generally, the findings show that there is a significant relationship between the zakat and macroeconomic factors. In other words, the zakat collection effects on the macroeconomic factors as the all hypothesis is been supported. In conclusion, the general objective of this study is been achieved based on the ordinary least square and the Correlation analysis that has been done. Maybe one day, Malaysia can consider replacing the tax with Zakat as the main factor. Moreover, an economist in Malaysia can do more research on the effect of Zakat towards more economic factor. Hence, after many types of research have done, they will have a solid reason for Malaysia Government to consider using zakat as the main factor of the economy to help poor people and generate income for Malaysia (gross domestic product). In other words, a better understanding of how the zakat works can help Malaysia to improve the system of zakat and make zakat as the main income factor of Malaysia for the futures.

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## References

- Abdelbaki, H. H. (2015). The Impact of Zakat on Income Inequality and Poverty in Malaysia: A Panel Data Analysis. *Review of Integrative Business and Economics Research*, 2(1), 133–154.
- Abdelmawla, M. A. (2014). The impacts of zakat and knowledge on poverty alleviation in Sudan: An empirical investigation (1990-2009). *Journal of Economic Cooperation and Development*, 35(4), 61–84. <https://doi.org/10.1007/s10801-010-0251-7>
- Ahmed, U., Khalid, N., Ammar, A., & Shah, M. H. (2017). Assessing moderation of employee engagement on the relationship between work discretion, job clarity and business performance in the banking sector of Pakistan. *Asian Economic and Financial Review*, 7(12), 1197-121. <https://doi.org/10.18488/journal.aefr.2017.712.1197.1210>
- Ahmed, U., Majid, A. H. A., & Zin, M. M. (2016). Moderation of meaningful work on the relationship of supervisor support and coworker support with work engagement. *The Journal of Business, Economics, and Environmental Studies (JBEES)*, 6(3), 15-20.
- Akram, M. M., and Afzal, M. (2014). Dynamic Role of Zakat in Alleviating Poverty: A Case Study in Pakistan. *Munich Personal RePEc Archive*, 56013(56013), 1–45. Retrieved from <http://mpa.ub.uni-muenchen.de/56013/>
- Awad, M. H. (1989). "Adjusting Tax Structure to Accommodate Zakah", in: I. A. Imtiaz, et al., (eds.), *Management of Zakah in Modern Society*, Jeddah, IRTI, IDB, pp. 77- 96.
- Azam, R. M. A. R., Wahid, H. and Ahmad, S., (2015). Pelaksanaan Sistem Agen Dalam Kutipan Zakat Di Negeri Perlis: Isu Dan Cabaran, Isu Kontemporari Agihan Zakat di Malaysia. *Majlis Agama Islam Wilayah Persekutuan dan Jabatan Syariah dan Ekonomi, Akademi Pengajian Islam, Universiti Malaya*. 37-49.
- Iqbal, M. (2002). *Islamic Institutions and the Elimination of Poverty*. Leicester: The Islamic Foundation.
- Lessy, Z. (2009). "Zakat (Alms-Giving) Management In Indonesia: Whose Job Should It Be?" *La Riba: Jurnal Ekonomi Islam*, 3 (1), 106-119
- Lessy, Z. (2013). PHILANTHROPIC ZAKAT FOR EMPOWERING INDONESIA'S POOR: A QUALITATIVE STUDY OF RECIPIENT EXPERIENCES AT RUMAH ZAKAT. Retrieved from <https://core.ac.uk/download/pdf/46957789.pdf>
- Lessy, Z. (2016). Zakat (Alms-Giving) Management In Indonesia: Whose Job Should It Be? *La\_Riba*, 3(1), 106–119. <https://doi.org/10.20885/lariba.vol3.iss1.art8>
- Mahat, N. I., and Warokka, A. (2013). Investigation on zakat as an indicator for Moslem countries' economic growth. *J. for Global Business Advancement*, 6(1), 50. <https://doi.org/10.1504/jgba.2013.053478>
- Malik, S. J., Hussain, M., and Shirazi, N. S. (1994). Role of Infaq in poverty alleviation in Pakistan. *Pakistan Development Review*, 33(4), 935–952.
- Metwally, M. M. (1983). Fiscal Policy in Islamic Economy, in Ahmed, Z. et al.(Eds.), *Fiscal Policy and*

- Resource Allocation in Islam*, International Centre for Research in Islamic Economics, King Abdul Aziz University, Jeddah, Saudi Arabia , 59-81.
- Nisthar, S., and Nufile, A. A. M. (2017). A comparative analysis of the relationship of nature of poverty with Zakat collection and real gross domestic product: An empirical study in the context of Indonesia. *Advance Research Journal of Multi-Disciplinary Discoveries I Advance Research Journal of Multidisciplinary Discoveries. Advance Research Journal of Multi-Disciplinary Discoveries I*, 181800(17), 1258–1267. Retrieved from <http://www.journalresearchijf.com>
- Raimi, L., Patel, A., and Adelopo, I. (2014). Corporate social responsibility, Waqf system and Zakat system as faith-based model for poverty reduction. *World Journal of Entrepreneurship, Management and Sustainable Development*, 10(3), 228–242.  
<https://doi.org/10.1108/WJEMSD-09-2013-0052>
- Sarea, A. (2012). Zakat as a Benchmark to Evaluate Economic Growth: An Alternative Approach. *International Journal of Business and Social Science*, 3(18), 2010–2013.
- Sarea, A. (2012). Zakat as a Benchmark to Evaluate Economic Growth : An Alternative Approach. *International Journal of Business and Social Science*, 3(18), 2010–2013.
- Stevens, L. K., and Sessions, D. N. (2008). The Relationship Between Poverty and Economic Growth Revisited.
- Suheera, M. Y. M., Nashri, M. M. J., and Jamaldeen, A. (2015). The Role of Zakat on Poverty Alleviation : An Empirical Study at Nintavur, Sri Lanka. *Second International Symposium SEUSL*, (1), 157–163.
- Suprayitno, E., Kader, R. A., and Harun, A. (2013). “The Impact of Zakat on Aggregate Consumption in Malaysia”, *Journal of Islamic Economics, Banking and Finance*, 9(1), 39 – 62.
- Tahir, S. (1989). Toward a Theory of Aggregate Output, Income, and Economic Inequalities Determination in an Islamic Economy. *Journal of Islamic Economics (IIUM Journal of Economics & Management)*, Vol. 2, No. 2, 95-108.
- Wahid, H., Ahmad, S. and Nor, M. A. (2004). Kesan bantuan zakat terhadap kualiti hidup asnaf fakir dan miskin. *The Journal of Muamalat and Islamic Finance Research* 1(1): 151-166.
- Yusoff, M. (2011). Zakat Expenditure, School Enrollment, and Economic Growth in Malaysia. *International Journal of Business and Social Science*. 2(6): 175–181.
- Zangeneh, H., Zangeneh, and Hamid. (1995). A Macroeconomic Model of an Interest-free System. *The Pakistan Development Review*, 34(1), 55–68. Retrieved from [https://econpapers.repec.org/article/pidjournal/v\\_3a34\\_3ay\\_3a1995\\_3ai\\_3a1\\_3ap\\_3a55-68.htm](https://econpapers.repec.org/article/pidjournal/v_3a34_3ay_3a1995_3ai_3a1_3ap_3a55-68.htm)