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 MALAYSIA

S. Nisthar* AMM Mustafa** SMM. Mazahir***

Abstract

This study aimed to analyze the comparative contribution of the collection of Zakat (Islamic integrated social finance) and Real Gross Domestic Product (RGDP) to the incidence /nature of poverty in the context of Malaysia by employing quantitative methodology. The data, time series, used in this study were collected from Economic Planning Unit – Prime Minister's Department of Malaysia and Islamic Social Fiancé Report 2014, Ministry of Finance of Malaysia and various web-based sources for the period from year 1990 to year 2015. Correlation, regression, causality, Johansen cointegration, normality, autocorrelation LM, and hetereoskedasticy/homoskedasticity were used under data analysis and discussion. All the data collected were analyzed with the use of the statistical software called E-views 6.0. A multiple regression model was formulated so as to achieve the objective of the study. HCI (Head Count Index: the incidence/nature of poverty in Malaysia) was the dependent variable and the collection of Zakat and Real Gross Domestic Product were the independent variables. There was a significant relationship between the incidence/nature of poverty alleviation and the collection of Zaka in Malaysia. There was a negative associationship/relationship between the alleviation of poverty and the collection of Zakat. One percent of increment in the collection of Zakat led to decline the alleviation of poverty by 3.12 units in Malaysia and one percent of increment in the real growth rate in Malaysia led to decrease the nature of poverty/ alleviation of poverty by around 0.032. The policy makers and the government of Malaysia in terms of the annual growth rate of collection of Zakat and the real growth rate of GDP of the country could be appropriately directed to make aware of adopting the strategic macroeconomic management. **Keywords:** Poverty Incidence, Read Gross Domestic Product, Zakat Collection, Malaysia, Head Count Index

Introduction

As stated by the Almighty Allah in the Holy Quran in Surah At-Taubah and verse number 60, "Zakat is for the poor and the needy and those who are employed to administer and collect it, and for those whose hearts are to be won over, and for the freeing of human beings from bondage, and for those who hearts are overburdened with debts and for every struggle in God's cause, and for the wayfarers: This is a duty ordained by God, and God is the All-Knowing, the Wise."

Senior Lecturer in Business Economics, Department of Management, Faculty of Management and Commerce, South Eastern University of Sri Lanka, Oluvil, Sri Lanka *Senior Lecturer, Department of Islamic Studies, Faculty of Islamic Studies and Arabic

Language, South Eastern University of Sri Lanka, Oluvil, Sri Lanka

December 2018

^{*}Visitng Academic, South Eastern University of Sri Lanka, Oluvil, Sri Lanka

Accordingly, the Zakat is the collection of fund that should be gathered from the rich and distributed among not only Muslims but non-Muslims needy in the society. Thus, the alleviation of nature of poverty among the individuals who are the needy is the immediate and direct impact of the collection and distribution of *Zakat* fund which is one of the prime Islamic integrated social finances that can be used in the formulation of fiscal policy of the Islamic states all over the world.

The extent of Malaysia is an area of 330,323 square kilometers and the country is located in the equatorial region, with the average temperature throughout the country ranging between 21°C to 32°C. Thirteen states are found in Malaysia (Johor, Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Perak, Perlis, Pulau Pinang, Selangor, Terengganu, the Federal Territories of Kuala Lumpur and Putrajaya). Multi-ethnicity exists in the country with the prime ethnic groups of Malay, Indian, and Chinese. A system of Parliamentary democracy is practiced in Malaysia with the constitutional monarchy (EPU, 2016).

The process of *Zakat* management system in Malaysia is rather unique because it is not a national matter together; alternatively it is a matter of each state in the country. Each state of the country is having its own system to manage and monitor the collection of *Zakat* and the operation of distribution (Ahmad, 2016). The collection of *Zakat* generates and improves the economic activities by increasing the purchasing power which in turn creates a sequential effect on the supply from producers and demand from consumer (Bidin, et. al, 2009). The process of *Zakat* is a simple transfer of part of a certain size of the property of the rich to the poor. Thus, there is a social justice being established among the members of Muslim society.

The collection of *Zakat* fund is administered and managed by *Zakat* institutions being established in the each state of the country. 14 *Zakat* institutions have been launched to collect and distribute the *Zakat* throughout the country of Malaysia. As per the Constitution of Malaysia, Clause 97 (3), the administration and management of the collection of *Zakat* in the every state are under the patronage of authority and responsibility of the relevant states (Hafizah, et, al, 2016).

At present, the income of states is the most significant source which is collected from taxes in the world today. It consists of salaries, wages, rents, dividend, profit, and other forms of earning sources received in a given time period. These categories of people can be included for the payment of *Zakat*. In recent time, some of the Muslim nations endorsed the enactment of laws for the collection of *Zakat* on the income of individuals on the basis of obligatory payment such as in Sudan and on the basis of voluntary payment such as in Malaysia (Magda, 2013).

22

In Malaysia, the collection of *Zakat* annually records an increment; however it is not accompanied with the population of Muslim which is 30.1 million of Malaysians. The collection of *Zakat* records 2.46 billion in year 2014, when compared to year 2013 in which the collection of *Zakat* is amounting to RM 2.24 billion. This trend indicates that the collection of *Zakat* increases more than RM 2 million or 8.41% (PPZ, 2013 & 2014). On the other hand, the total tax collection in year 2014 is RM 134 billion. In comparison to the collection of tax and *Zakat*, this considerable gap is found in Malaysia. Though these collections of *Zakat* and tax are deviated from each other, the total of tax collection can be used as a benchmark to the collection of *Zakat* as the Islamic population in the country is higher than other religion (Hafizah, et, al, 2016).

Malaysia is rather successful in fighting against the incidence of poverty. The nature of poverty in the country is lower. In year 2004, around 8 percent of the population is amounted as the poor under the earning of US \$ 2 per day and there is a further decrease in the incidence of poverty to around 2 percent in year 2009. On the other hand, under the criteria of national poverty line, around 6 percent of the population in the country has been registered as the poor; around 12 percent of the rural population has been accounted as the poor in the rural areas under the rural poverty line, and around 3 percent of the urban population has been estimated as the poor in the urban areas of Malaysia under the urban poverty line in year 2004. The incidence of poverty in the country has been successfully decreased over year 2004 to year 2009. Around 4 percent of the overall population in the country and around 8 percent of the rural population in the rural areas, and also around 2 percent of urban population in the urban areas have been estimated to be trapped with poverty. The incidence of poverty in the country has dropped down even if the income gap has expanded (Islamic Research and Training Institute, 2014).

The Malaysian economy has achieved a stronger growth rate of 6.0% in year 2014 when compared to the previous year's growth rate of 4.7% in 2013. The persistent strength in the private domestic demand and the improvement in external trade performance are the driving force for the stronger growth rate in the country. Particularly, the net exports have contributed directly to the rate of growth in 2014 after seven successive years during which the negative contribution has been recorded as there has been a greater and continued demand for Malaysia's exports in the advanced economies. This greater and continued demand for goods and services with the inclusion of electrical and electronics (E&E) products across markets has ensured the growth rate of the country. Since the improvement in real exports of goods and services is higher than the improvement in imports, net exports has achieved a strong growth rate of 19.7 percent in year 2014 (in year 2013: - 12.6%) and 1.4 percentage of contribution to the entire GDP growth rate is recorded (Annual Report, 2014).

Objective of the Study

To find out the contribution of the *Zakat* collection and Real Gross Domestic Product (RGDP) to the poverty alleviation in Malaysia.

Literature Review

Aimatul and Matthew (2011) explored to find how Islamic principles of the collection of *Zakat* and finance could validate the process of microfinance which could be used as a strategy of poverty alleviation by employing two case studies such as Baitul Maal Muamalat Indonesia and Baitul Qiradh Baznas in Indonesia. They found from the study that the collection of *Zakat* and Islamic charities has been utilized as the source of fund of microfinance by them to eradicate the nature of poverty from the low income earners with some form of employment opportunity.

Vita (2015) studied to find the relationship between the distribution of *Zakat* and the nature of poverty alleviation by using literature survey method on the characteristics of the collection and distribution of *Zakat* in Malaysia, Brunei Darussalam, and Indonesia. He found that the empowerment of family could be achieved by the distribution of *Zakat* so as to sustainably alleviate the incidence of poverty through microenterprise.

Sudirman (2016) studied to examine the Bank of "*Zakat*" which was a potential *Zakat*-based microfinance in Indonesia by employing descriptive method with the use of the secondary sources. He found that the Bank of Zakat collected the fund from various sources and distributed among the poor through the various measures which played very important roles so as to alleviate poverty.

Anton (......) studied to find out the relationship between the collection of *Zakat* and the economic development by employing content analysis from the secondary sources. He found that *Zakat* could be viewed as a normative aspect and the collection *Zakat* could be used as an instrument of poverty alleviation in the various sectors in the economy by using its usability goals.

Though there are a considerable number of studies on the basis of the collection of Zakat and the nature of poverty, this study is a statistically comparative analysis on the basis of the collection of *Zakat*, the nature of poverty and the real growth rate of the country of Malaysia.

Methodology

The data used this study are the time series which have been collected from Economic Planning Unit – Prime Minister's Department of Malaysia and Islamic Social Fiancé Report 2014, Ministry of Finance of Malaysia and various web-based sources for the period from year 1990 to year 2015. All the data used in this study have been collected from the secondary sources. The dependent variable in this study is HCI (Head Count Index). The independent variables are Collection of *Zakat* and RGDP (Real Gross Domestic Product). Accordingly, the following multiple regression model have been constructed and tested to achieve the objectives of this study.

HCI = f(Zakat, RGDP).....(1)

 $HCI_{t} = \delta_{0} + \delta_{1} logZAK_{t} + \delta_{2}RGDP_{t} + e_{t}.....(2)$

HCI: Headcount Index - the proxy for the nature of poverty which measures the proportion of the population whose welfare falls below the poverty line (1 US\$)

logZAK_t: The logarithm of collection of *Zakat* for the selected time series

RGDP_t: Real Gross Domestic Product (Percentage of RGDP) for the selected time series

 $\delta_0, \delta_1, \delta_2$: Coefficients

 ε_t : Error term

The data have been analyzed through various research methods and tools such as correlation, regression, Granger Causality, Johansen Cointegration, Trend and Fluctuations, Normal Distribution, Heteroskedasticity, and Serial Correlation LM.

Data Analysis and Discussion

Correlation

Table 01 portrays the correlational relationship among the variables HCI (Headcount Index) – Independent variable, Zak (*Zakat* collection) – Dependent variable and RGDP (Real Gross Domestic Product) – Dependent variable.

The correlation relationship always measures the strength, significance, and the direction of relationship of the variables used in the studies. As per Table 01, the strength of relationship between Headcount Index and the collection of *Zakat* is very strong as the correlation coefficient (*r*) is greater than 0.75 (r = 0.84). Further, there is a inverse relationship between Headcount Index and the collection of *Zakat*. Meantime, the relationship between Headcount Index and Real Gross Domestic Product is moderately strong because the value of Pearson's correlation coefficient is higher than 0.5 (r = 0.558). At the same time, there is a direct associationship between Headcount Index and Real Gross Domestic Product. And also the correlation ship between these two independent variables and the dependent variable are statistically significant at the 0.01 significant level (p < 0.05).

		Headcount Index	Real Gross Domestic Product	Zakat
Headcount Index	Pearson Correlation	1	.558	840-
	Sig. (2-tailed)		.005	.000
	N	25	24	23
Real Gross Domestic	Pearson Correlation	.558	1	471-
Product	Sig. (2-tailed)	.005		.023
	N	24	25	23
Zakat	Pearson Correlation	840-	471-	1
	Sig. (2-tailed)	.000	.023	
	N	23	23	23

Table 01: Correlation Test

Correlations

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Multiple Regression

Table 02 illustrates the linear regression results of the model which shows the relationship between the dependent variable – Headcount Index (proportion of the population whose welfare falls below the poverty line (1 US\$) and the independent variable such as the collection of *Zakat* collection and the annual growth rate of Real Gross Domestic Product of Malaysia. The estimated model can be constructed as follows as per the regression results shown in Table 02:

HCI = 25.42 - 0.032RGDP - 3.12logZAK

December	2 0 18
----------	---------------

26

Dependent Variable: HCI						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	25.41926	1.972125	12.88928	0.0000		
RGDP	-0.031701	0.093448	-0.339242	0.7380		
LOG(ZAK)	-3.118994	0.255404	-12.21202	0.0000		
R-squared	0.922027	Mean dep	Mean dependent var			
Adjusted R-squared	0.914229	S.D. dependent var		3.319037		
S.E. of regression	0.972034	Akaike info criterion		2.902255		
Sum squared resid	18.89700	Schwarz c	riterion	3.050363		
Log likelihood	-30.37594	Hannan-Quinn criter.		2.939504		
F-statistic	118.2490	Durbin-Watson stat		0.953384		
Prob(F-statistic) 0.000000					

The International Journal for Economics and Business Management ISSN :2250 - 2750 Table 02: Regression Results

According to the results of above estimated model, it is estimated that one percent of the increase in the collection of Zakat decreases the HCI (Head Count Index) - the dependent variable by around 3.12 units. Therefore, there is a negative associationshiop between the Head Count Index and the Collection of Zakat in the selected time period in Malaysia. That is, if the collection of Zakat significantly is higher, the prevailing poverty (the Head Count Index) decreases by the particular estimated amount. As per the results of above estimated model, the value of Adjusted R² is around 0.914 (91.4%). It indicates that the goodness of fit of the observed data to the estimated regression line is represented by 91.4 percent. Therefore, the dispersion of the observed data from the fitted value is very less. As a result, 91.4 percent of variance of the dependent variable - HCI is represented by the collection of Zakat - independent variable itself. The rest of 8.6 percent of the variance of the dependent variable - Head Count Index is explained by the external factors not considered in this study other than the collection of Zakat. Accordingly, the collection of Zakat – the internal factor can influence the dependent variable - Head Count Index (HCI) by 91.4%.

Therefore, it is viewed that the estimated regression line of this model is fitted properly. And also, the factor or independent variable – the collection of *Zakat* is having significant associationship with the dependent variable – Head Count Index at below 5% level (p < 0.000). The value of probability (p) is less than 5 percent significant level (p < 0.000). As such, it is highly significant of the collection of Zakat associated with the reduction of poverty in the country.

Accordingly, the null hypothesis of "there is no significant relationship between the collection of *Zakat* and Head Count Index (the nature of poverty in Malaysia)" is rejected because the value of probability is less than 5 percent significant level (p < 0.05). Therefore, the alternative hypothesis of "there is a significant relationship between the collection of *Zakat* and Head Count Index (the nature of poverty in Malaysia)" is accepted at more than 95 percent confident level. The Durbin-Watson statistic (*DW*) is greater than the Adjusted R - squared (*DW* > *Adjusted* R^2). It indicates that there is no spurious problem in this linear regression model. As a result, it is not a useless model. Hence, all independent variables and the dependent are stationary at its level. Therefore, the results of the regression model are not misleading to the findings and conclusion of this study.

Further, Table 02 explains the regression results of in terms of the estimated coefficient of independent variable *RGDP* (Real Gross Domestic Product), it is predicted and estimated that one unit of the increase in the rate of Real Gross Domestic Product of Malaysia leads to decrease the HCI (Head Count Index – the nature of poverty) by around 0.032 units. Thus, there is an inverse relationship between the Head Count Index – the nature of poverty and the rate of Real Gross Domestic Product in this country of Malaysia. It means that if the rate of Real Gross Domestic Product is higher, the existence of nature of poverty proxied by the Head Count Index decreases by around 0.032 units.

Accordingly, the null hypothesis of "there is no significant relationship between the nature of poverty (Head Count Index in Malaysia) and the rate of Read Gross Domestic Product" is accepted because the value of probability is higher than 5 percent significant level (p > 0.05). Therefore, the alternative hypothesis of "there is a significant relationship between the nature of poverty and Head Count Index (the nature of poverty in Malaysia)" is rejected.

The International Journal for Economics and Business Management ISSN :2250 - 2750 Granger Causality Test ISSN :2250 - 2750

Table 03 portrays the causal relationship between the Head Count Index, collection of Zakat, and the rate of Real Gross Domestic Product in Malaysia. As per Table 03, the null hypothesis of "HCI does not cause RGDP" is not accepted because the value of probability is less than 5 percent (p =0.019). Hence, this null hypothesis is rejected at below 5% significant level. Therefore, HCI can considerably cause RGDP (the Real Gross Domestic Product). The null hypothesis of "Log (Zak) does not cause HCI" can be rejected because the value of probability is less than 0.05 (5%). Thus, it is rejected. That is why, the alternative hypothesis is accepted. Therefore, the collection of Zakat can considerably cause the Headcount Index. The null hypothesis of "HCI does not cause Log (Zak)" can be rejected because this causal relationship between these variables is significant at less than 5 percent (p = 0.025). The null hypothesis of "Log (Zak) does not cause RGDP" can be rejected and the alternative hypothesis of "Log (Zak) can cause RGDP" is accepted at less than 5 percent significant level (p > 0.05). Thus, the Granger Causality Test statistically finds that there is a one way causal relationship between HCI and RGDP. Another important causal finding is the causal relationship between Log (Zak) HCI. There are two way causal relationship between Log (Zak) and HCI. Meanwhile, there is a one way of causal relationship between Log (Zak) and RGDP (the Rate of Real Gross Domestic Product).

Null Hypothesis:	F-Statistic	Prob.
RGDP does not Granger Cause HCI	0.02129	0.8855
HCI does not Granger Cause RGDP	6.54293	0.0188
LOG(ZAK) does not Granger Cause HCI	10.9937	0.0036
HCI does not Granger Cause LOG(ZAK)	5.87451	0.0255
LOG(ZAK) does not Granger Cause RGDP	8.33137	0.0095
RGDP does not Granger Cause LOG(ZAK)	0.60726	0.4454

Table 03: Grange	er Causality Test
------------------	-------------------

Johansen Co-integration test: Model 01

Table 04 illustrates the testing of the co-integration of the variables and long run relationship of the model variables. The test and the results of the Johansen Co-integration test are exposed in the following tables (Table 04 and Table 05).

Table 04: Trace and Maximum Eigen Value tests

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	0.05Critical Value	Prob.**		
None *	0.714800	37.89406	24.27596	0.0005		
At most 1	0.411758	11.54819	12.32090	0.0671		
At most 2	0.019112	0.405228	4.129906	0.5878		
Trace test indica	ates 1 co-integra	ating eqn(s)	at the 0.05 level			
* denotes rejecti	on of the hypot	thesis at the	e 0.05 level			
**MacKinnon-H	**MacKinnon-Haug-Michelis (1999) p-values					
Unrestricted Co-	Unrestricted Co-integration Rank Test (Maximum Eigen value)					
Hypothesized No. of CE(s) Prob.**	Eigen value	Max-Eiger	0.05 Statistic	Critical Value		
None *	0.714800	26.34587	17.79730	0.0020		
At most 1	0.411758	11.14296	11.22480	0.0517		
At most 2	0.019112	0.405228	4.129906	0.5878		
Max-Eigen value test indicates 1 co-integrating eqn(s) at the 0.05 level						
* denotes rejection of the hypothesis at the 0.05 level						
**MacKinnon-Haug-Michelis (1999) p-values						

Unrestricted Co-integration Rank Test (Trace)

Table 05: Johansen Co-integration test – Model 01

Null Hypothesis	statistic	Critical value0.05	P-Val	ue Decision/results	
Variables not co-integrated	37.89406 (Trace Statistic)	24.27596	0.0005	Variables are co-integrated at first difference. Therefore, all the variables are having long run relationship/associationship /eventually move together in the long run.	
Variables not co-integrated	26.34587 (Max- Eigen Statistic)	17.79730	0.0244	Variables are co-integrated at first difference. Therefore, all the variables are having long run relationship associationship/ eventually move together in the long run.	
December 2018			30	Volume 8 Issue 1	

Table 04 and Table 05 illustrate that Trace Test and Max-Eigen Test ensure maximum one co-integrating equation in this multiple regression model at 0.05 significant level. Accordingly, all the three variables such as the Headcount Index, Collection of *Zakat*, and the Rate of Read Gross Domestic Product are establishing a long run relationship and finally moving together ensuring the close relationship between those variables. The Trace statistic indicates that the co-integration is ensured between the variables at less than 0.05 (5%) significant level (p < 0.0005) along with the critical value which is less than Trace Statistic. Further, the value of Maximum Eigen statistic is higher than Critical value. Thus, as per the Max-Eigen test, all the variables are subject to the long run relationship. Thus, the two tests firmly ensure the long run relationship of the variables.

Trend and Fluctuations – Headcount Index

Figure 01 portrays the trend and fluctuations of the Headcount Index over the time period from 1990 - 2015. The Hodrick-Prescott (HP) filter is one of the tools generally used in macroeconomics. It is being used to extract a component of trend from time series data with the various smoothing values of Lambda (Robert, 2013). The fluctuations or cycles of HCI over the time series of the data is less as the cycle of the time series of the HCI goes similarly with the trend of HCI. The trend of this time series is around stochastic, not deterministic. Therefore, there are less numbers of structural breaks in this time series. The trend of HCI is downward slopping in the time period concerned.

Figure 01: Trend and Fluctuations - Headcount Index



The International Journal for Economics and Business ManagementISSN :2250 - 2750Trend and Fluctuations – Log (Zak)

Figure 02 exposes that the fluctuation or cycle of the collection of *Zakat* over the considered time series of the data goes simultaneously to the trend of the collection of *Zakat*. The trend of the collection of *Zakat* is highly stochastic. As a result, there are very less numbers of structural breaks in this time series. The shape of the trend of Log (*Zakat*) is upward slopping.

Figure 02: Trend and Fluctuations - Log (Zak)



Trend and Fluctuations – RGDP

Figure 03 portrays the trend and fluctuations/cycle of RGDP over the time period concerned. The fluctuation or cycle of RGDP is higher. And also, the trend of this time series is considerably deterministic, not stochastic considerably. As a result, there are considerably more numbers of structural breaks in this time series. The shape of trend of RGDP is 'U' shaped in the long run – over the time period concerned.

Figure 03: Trend and Fluctuations - RGDP



The International Journal for Economics and Business ManagementISSN :2250 - 2750Residual Test: Normality test

To make the results of this multiple regression model free from erroneous inference and wrong conclusions, it is essential to test the residuals of this multiple regression model used in this study. Normal distribution of the residuals can be evaluated through normality tests. Thus, the Jarque-Bera test can be used to test the normal distribution of the residuals in economics and business (Keya, 2016).



Figure 04: Normality Test

Figure 04 illustrates the normality test of multiple regression model. In a good model which explains the relationship of the dependent variable and the independent variables, the normal distribution of the residuals should be ensured. In this test, the null hypothesis of "the residual is normally distributed" is accepted as the corresponding probability value of Jarqure-Bera estimate is more than 5% (17.0%). Thus, the alternative hypothesis of "the residual is not normally distributed" is rejected. One of the good sings of the multiple regression model is ensured by the rejection of null hypothesis.

Residual Test: Heteroskedasticity

Table 07 explains the results of the heteroskedasticity test of the model. The null hypothesis of "there is no heteroskedasticity in the residual" can't be rejected as the probability value of corresponding observed R-squared is more than 5 percent (p = 43.0%). As a result, the alternative hypothesis of "there is heteroskedasticity in the residuals" can be rejected. Accordingly, the trend of the residuals of this model is homoskedasticity. This is another good nature of the multiple regression model.

Heteroskedasticity Test: Breusch-Pagan-Godfrey					
F-statistic 0.789784 Prob. F(2,20) 0.4676					
Obs*R-squared	1.683540	Prob. Chi-Square(2)	0.4309		
Scaled explained SS	2.109365	Prob. Chi-Square(2)	0.3483		

The International Journal for Economics and Business ManagementISSN :2250 - 2750Table 07: Heteroskedasticity Test

Residual Test: Serial Correlation

There should not be serial correlation (auto correlation) or serial correlation in the residual of the model. Table 08 illustrates the Breusch-Godfrey Serial Correlation LM test so as to test the serial correlation of the residuals. The null hypothesis of "there is no serial correlation in the residuals" can't be rejected as the value of the corresponding probability of Observed R-squared is more than 5% (5.05%). Therefore the null hypothesis of "there is no serial correlation in the residual" can be accepted. As a result, there is no autocorrelation or serial correlation in the residuals of the model.

Breusch-Godfrey Serial Correlation LM Test:					
F-statistic	3.156899	Prob. F(2,18)	0.0668		
Obs*R-squared	5.972631	Prob. Chi-Square(2)	0.0505		

Table 08: Serial Correlation Test

Findings and Conclusion

On the basis of the objective of this study, a significant relationship is found between the nature of poverty and the collection of Zaka in Malaysia. There is a negative associationship between the nature of poverty and the collection of Zakat. As per this inverse relationship between these factors, if one percent increases in the collection of Zakat in the country, 3.12 units decrease in the nature of poverty in Malaysia. At the same time, there are 0.032 units of downfall in the nature of poverty on account of the increase in the real growth rate of the country. There is no significant relationship between both the variables such as HCI and RGDP. The correlation relationship between the collection of Zakat and HCI is comparatively stronger than the RGDP. And also the correlation is significant. As per the test of causality, a two way causal relationship between HCI and the collection of Zakat is found whereas there is a one way causal relationship between HCI and RGDP and there is a one way of causal relationship between Log (Zak) and RGDP (the Rate of Real Gross Domestic Product). It is found that there is a log run relationship between the nature of poverty, the collection of Zakat, and real growth rate of Malavsia.

An upward trend is found over the period of time considered in the collection of *Zakat* along with the very less numbers of structural breaks and fluctuations and there is a wide 'U' shaped trend detected in the real growth rate in Malaysia with more structural breaks and fluctuations. The shape of the trend of HCI is downward slopping with the less numbers of structural breaks through stochastic trend. The normal distribution of residuals is ensured and the residuals are homoskedastic. And also the residuals are free from autocorrelation. Finally, it can be drawn to the conclusion that the contribution of the collection of *Zakat* to the alleviation of the nature of poverty in the country of Malaysia is much more statistically significant than the real growth rate of the country.

Recommendation

From the findings of this study, the policy makers and the government of Malaysia in terms of the annual growth rate of collection of *Zakat* and the real growth rate of GDP of the country can be appropriately directed to make aware of adopting the strategic macroeconomic management, especially in strategic planning, in the fiscal policy of the country in eliminating the crucial nature of poverty among the Muslim society in the country. And also, they can be guided from the findings of this study to soundly scrutinize the comparative advantage which the country empirically experiences and benefits from the contribution of the collection of Zakat and the real growth rate. Further, the findings of this study are to provide guidance for Muslim countries so as to revitalize the role of *Zakat* collection in alleviating the nature of the poverty in their respective countries.

References

- 1.(2015), The Impact of Zakat on Income Inequality and Poverty in Malaysia: A Panel Data Analysis, Market Forces, College of Management Sciences, Vol. X, No. 1, June 2015, Available at: https://www.researchgate.net/ publication304474970_The_Impact_of_Zakat_on_Income_Inequality_and_Powerty_in_Malaysia_A_Panel_Data_Analysis
- 2. PPZ. (2013), Ringkasan Laporan Zakat PPZ-MAIWP 2013. Available at: http:// www.zakat.com.my/info-ppz/laporan/buku-laporan/239-2013.
- 3. Hafizah Zainal, Azizi Abu Bakar, Ram Al Jaffri Saad (2016), Reputation, Satisfaction of Zakat Distribution, and Service Quality as Determinant of Stakeholder Trust in Zakat Institutions, International Journal of Economics and Financial Issues, 2016, 6(S7) 72-76, Special Issue for International Soft Science Conference (ISSC 2016), 11-13 April 2016, University Utara Malaysia, Malaysia, Available at: https://www.econjournals.com/index.php/ijefi/article/.../pdf
- 4. Ahmad Aizuddin Hamzah and Anath Rau Krishnan (2016), Measuring the Efficiency of Zakat Collection Process Using Data Envelopment Analysis, The 4th International Conference on Quantitative Sciences and Its Applications (ICOQSIA 2016), AIP Conf. Proc. 1782, 040007-1–040007-6, Published by AIP Publishing, p 1, Available at: http://aip.scitation.org/doi/pdf/10.1063/1.4966074.

- 5. Aimatul Yumna and Matthew Clarke (2011), Integrating Zakat and Islamic charities with microfinance initiative in the purpose of poverty alleviation in Indonesia, 8th International Conference on Islamic Economics and Finance, Available at: www.assaif.org/.../Zakat%20an%20Islamic%20Microfinance....
- 6. Annual Report (2014), Economic Developments of Malaysia in 2014, Available at: https://www.bnm.gov.my/files/publication/ar/en/2014/cp01
- 7. Anton Athoillah, M (.....),Zakat as an Instrument of Eradicating Poverty (Indonesian Case), International Journal of Nusantara Islam, Available at: journal.uinsgd.ac.id-index.php/ijni/article/download/.../pdf_1...
- 8. Bidin, Z., Md. Idris, K. and Mohd Shamsudin, F. (2009), Predicting compliance intention on zakah on employment income in Malaysia : An application of reasoned action theory, Jurnal Pengurusan 28, 85-102, Available at: http://icmrr.org/global/pdffiles/IJFRR/f201702009.
- 9. EPU (2016), The Malaysian Economy 2016 Figures, Prime Minister's Department, Available at: http://www.epu.gov.my/sites/default/files/MEIF%202016
- 10. Islamic Research and Training Institute (2016), Islamic Social Finance Report 2016, Available at: http://www.irti.org/English/Research/Documents/Report/2
- 11. Magda Ismail A. Mohsin (2013), Potential of Zakat in Eliminating Riba and Eradicating Poverty in Muslim Countries, EJBM-Special Issue: Islamic Management and Business, ISSN 2222-1719 (Paper) ISSN 2222-2863 (Online), Vol.5 No.11 2013, Available at: http://iiste.org/Journals/index.php/EJBM/article/viewFile/5429-5546.
- 12. PPZ. (2013), Ringkasan Laporan Zakat PPZ-MAIWP 2014, Available at: http:// www.zakat.com.my/info-ppz/laporan/buku-laporan/239-2014.
- 13. Sudirman (2016), Implementing "Zakat"-Based Microfinance in Indonesia, IOSR Journal of Economics and Finance (IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 7, Issue 5 Ver. II (Sep. - Oct. 2016), PP 57-61, Available at: httpwww.iosrjournals.org-iosr-jef-papers-Vol7-Issue5-Version-2-H0705025761
- 14. Vita Sarasi (2015), Roles of Zakat Distribution for Microenterprises in the Basis of Sustainable Family Empowerment in Indonesia, Available at: http://www.dpu.ac.th/ masean/upload/content/files 007%20Roles%20of%20Zakat%20Distribution% 20for%20Microenterprises