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The Impact of *Zakat* on Aggregate Consumption in Malaysia

Eko Suprayitno[1]
Radiah Abdul Kader[2]
Azhar Harun[3]

Abstract

This study aims to look at the impact of zakat distribution on aggregate consumption in view of zakat distribution by zakat institutions is mostly in the form of money for basic needs and monthly cash support. The study uses panel data of states in Peninsula Malaysia and analysis is done by using the fixed effect model. The study finds that zakat distribution has a positif impact on aggregate consumption. However, the impact is small and short run. Hence this study recommends that zakat distribution should be not limited to the fulfilment of consumable needs only but should also cover other forms of monetary aid that can generate a continuous flow of income for zakat recepients.

Key words*: zakat* distribution, aggregate consumption, panel data.

Introduction

There is now a higher level of awareness among Muslims to fulfill their obligation to contribute to *zakat*. *Zakat* is not viewed solely from the perspective of religion as a form of religious rite but more than that, it plays an important role socially and

[1] PhD candidate Faculty of Economics and Administration University of Malaya, 50603 Kuala Lumpur, Malaysia, **Lecturer,** Faculty of Economics, *Universitas Islam Negeri Maulana Malik Ibrahim (UIN Maliki) Malang* Emel: ekonashwan@gmail.com

[2] **Associate Professor**, Faculty of Economics and Administration, University of Malaya 50603, Kuala Lumpur, Malaysia. Email: radiah@um.edu.my

[3] **Associate Professor**, College of Law, Government and International Studies, University Utara Malaysia, Sintok Kedah, Darul Aman. Email: h.azhar@uum.edu.my

economically in ensuring justice and economic welfare of the society as a whole. In this context, *zakat* serves as an instrument for the redistribution of wealth from the rich to the poor. In the Qur'an, the distribution of *zakat* is explained in detail in comparison with the details of the types of wealth on which *zakat* is obligatory. The question that needs to be addressed is the effectiveness of the distribution of *zakat* to all its recipients.

In Malaysia, Islamic law and custom issues are under the jurisdiction of each state in this country. This is specifically laid down under the Article 74 (2) of Federal Constitution. Therefore, the administration of *zakat* in Malaysia lies with the respective Islamic Council of each state and the federal territories also have their own council. Due to that, the quality of services provided by respective Islamic Council in *zakat* administration is different from one state to the other. In Certain states, *zakat* is collected and distributed by state *zakat* collection centre while in other state *zakat* is collected by the state *zakat* collection centre while distribution is done by other entity that is *Baitulmal*. For example, Wilayah Persekutuan Kuala Lumpur and Negeri Sembilan, *zakat* is collected by *zakat* collection centre while distribution is managed by *Baitulmal*. In Selangor, both *zakat* collection and distribution are done by its *zakat* centre.

The distribution of *zakat* by *zakat* institutions in Malaysia, especially to the poor and needy recipients, is more like providing help and support for self-sufficiency and to meet the need for current consumption. Among the forms of *zakat* given in aid of consumption are monthly food aid, monthly financial aid and payments or handouts given during festivals.

Zakat as distributed to the poor and needy, is in fact, giving extra income to this group of people, and they are given the extra purchasing power directly. Thus, the first effect of *zakat* payment at the macro level is the increase in the purchasing power of *zakat* recipients through *zakat* distribution. In theory, the marginal propensity to consume (MPC) of the poor is far greater than the marginal propensity to consume (MPC) of the rich. This means that if the poor were to receive this extra financial aid, a big part or possibly all of it would be used for the consumption of basic necessities. For example, the distribution of *zakat* and wealth on approaching *Ramadhan* or

Syawal increases the purchasing power of the poor and the needy. In many places, every time upon approaching *Syawal*, there would be an increase in the demand for basic necessities. This could be seen as the impact of the distribution of *zakat* on consumption, especially in the consumption of basic need.

Review of the Literature

The theoritical relationship between *zakat* spending and aggregate consumption is documented in the literature and therefore, it will breifly discussed here. Among literatures, some of the studies are case studies which focus on the specific analysis on the impact *zakat* on poverty reduction. Ibrahim (2007) studied the effect of *zakat* distribution on income distribution on the poor and needy recipients of *zakat* in Selangor, Malaysia, based on the 2001-2002 data. His study found that the distribution of *zakat* managed to reduce poverty rate from 62 percent to 51 percent. Poverty gap was reduced from RM315 to RM281 while the income distribution gap was reduced from 59 percent to 53 percent. The Sen index, which measures the pressure of poverty by taking into account the level of social welfare, had decreased from 0.47 to 0.32. The FGT index decreased from 0.27 to 0.17 in the Selangor. Reduction of poverty and income inequality reflected an increase in income to the *zakat* recipients as well as an increase in public consumption.

Shirazi (1994) studied the effect of *infaq* fund in the reduction of poverty in the urban as well in the rural areas of Pakistan. He found that *infaq* fund reduced poverty by 3.78 percent in urban areas and 2.06 percent in rural areas, and decreased poverty level by 2.16 percent throughout the whole of Pakistan. More importantly was the impact of *infaq* that could reduce poverty gap and severity of poverty index. Poverty gap declined by as much as 4.16 per cent and the severity of poverty gap was reduced to 8.62 per cent throughout Pakistan. Thus, the reduction of poverty would have an impact on the increase in public consumption, especially the poor recipients of *zakat* and *infaq*.

Metwally (1995) studied consumption behavior in Muslim countries by using the sample data of 24 Muslim countries for 1979 to 1989. Muslim countries in this study are the countries where the populations are at least 50 percent Muslim. He tested 12

of the econometric models of aggregate consumption, income and current prices and found the best regression analysis from the 12 models also to test 5 hypothesis, that is an absolute income hypothesis, permanent income hypothesis, relative income hypothesis, life-cycle hypothesis, and pursuit consumption hypothesis. The result of Metwally analysis showed that the aggregate consumption behavior in 7 Muslim countries were best described by the consumption of permanent income hypothesis, while 17 other countries were perfectly match with behavior in pursuit consumption hypothesis. The limitation of the model is the enforcement of Islamic law in these Muslim countries.

Theoritical Framework.

Backgorund of the Theory

There are various theories of consumption. The first is, Franco Modigliani Theory of Consumption Approach and the Life Cycle Hypothesis (Modigliani 1954). The second is, the theories used the approach of Milton Friedman and Income Hypothesis, (1957). The third is, the absolute income hypothesis by Keynes (1936) relates consumption to income. The relation between consumption and income is based on his fundamental psychological law of consumption which states that when income increases the consumption expenditure also increases but by a smaller amount.

The Keynesian consumption function is written as

$$C = a + cY \qquad a > 0 \qquad 0 < c < 1$$

Where *a* is the intercept, *a* constant which measures consumption at a zero level of disposal income, *c* is the marginal propensity to consume (MPC) and *Y* is the disposal income. The above relation show that consumption is a function of current disposable income whether linear or non-linear and is called the absolute income hypothesis. This consumption function has the following properties:

a. As income increases, average propensity to consume (APC = C / Y) falls.

b. The marginal propensity to consume MPC is positive but it is less than unity (0<C<1) so that higher income leads to higher consumption.
c. The consumption expenditure increases or decreases if income increase or decrease in income but it is non-proportionally. This non-proportional consumption function implies that in the short run average and marginal propensities do not coincide (APC > MPC).
d. This consumption function is stable both in the short run and the long run.

According to Keynes (1936), change in consumption is dependent on absolute income (the current disposable income). For any changes in income, consumption will vary in the same direction but in a smaller magnitude. In other words, the marginal propensity to consume is less than one. Keynes also argues that marginal propensity to consume is less than the average propensity to consume. This implies that as income increases, consumption decreases in terms of overall total income.

Therefore this study will apply the Keynesian absolute income hypothesis because it is closer to the consumption model in Islamic economics besides to facilitate the analysis of consumption of two groups of consumers in this study, that is, one group of consumers who contribute to *zakat* and have higher disposable incomes and the other group the recipients of *zakat* who have a low disposable incomes.

In Islam, consumption has the objective to enhance worship and faith in Allah in order to obtain victory and well-being in afterlife (*al-Falah*), either by spending the wealth or money for society. Consumption in Islam is based on Islamic ethical values such as the consumption of goods that are permitted or lawful and good, prudent, non-luxurious, avoid debt, away from stinginess and miserly (Qardhawi 1997). This is different from the conventional consumption activities, in which in conventional economics, individuals try to meet their needs by achieving maximum satisfaction through consumption by utilizing all their incomes (Hicks 1934).

In Islam, consumption begins with fulfilling the various levels of needs in the hierarchy of needs as proposed by Maslow (1943), beginning with fulfilling the basic or physiological needs, then safety needs, love and belongingness needs, self-esteem

needs and the highest level of needs, self-actualization needs. It is different from Islam, when the basic needs are met no negative impacts will occur because in Islam, satisfaction is not limited to physical wealth, but is also dependent on something that is abstract, such as to do good. Satisfaction can happen and be felt by a Muslim with the hope that he is rewarded by Allah s.w.t. because of his increasing charitable deeds.

The Maslow concept is similar to Imam al Ghazali (n.d) and Imam al Syatibi (n.d). Both scholars agree that Islam direct human's objectives in life. They believe that every thing that support one in obtaining one's goals in life will increase one's social welfare. This increase is known as "*masalih*". If something reduces one's social welfare, the reduction is called "*mafasid*". In forming the social welfare function, al Ghazali (n.d.) and al Shatibi (n.d.) classifiy three aspects that can boost social welfare which are :

a. *Dharuriyat* (basic needs)
b. *Hajiyat* (comfort)
c. *Tahsiniyat* or *kamaliat* (wealth)

Dharuriyat includes all basic needs to sustain one's life according to Islam such as religion, life, thinking, children and property. *Hajiyat* is comfort which is not necessarily essential to retain the five basic necessities. Meanwhile, *tahsiniyat* is a living element that becomes a symbol of one's wealth. In this context Imam Nawawi (n.d.) also explains that the basic needs (*al daruriyyat*) comprises food, clothing's, shelters and other things that are necessary for an individual without any waste or having to resort to penny-pinching (needs that are really needed).

In addition to this, scholars of Islamic economy such as Mannan (1989) and Muslehuddin (1970) relate the concept of basic necessities to priority of usage. The priority level is divided into three: basic need, comfort goods and luxury goods. Afzalurahman (1974) identifies four levels: basic necessities, skill necessities, comfort material and luxury material. Similar view is developed by Sadeq (1987) who listed five levels: living necessities, basic necessities, comfort goods, luxury goods and dangerous and harmful materials. However, all these scholars indicate that supreme of all needs would be basic necessities and comfort goods.This view is in

line with the discussion by Hasan Al Banna (1997:387-409) who stated that the scope of Islamic economics in meeting needs is wider, in particular, in comparison with conventional economics. This is because Islamic economics is not about material gratification that is physical in nature, but it is far more than satisfaction that is more closely linked with the position of man as a servant of Allah to the extent that if all the basic needs are met, then man will strive to meet other needs which can provide satisfaction, either physical satisfaction or non-physical or spiritual satisfaction, through good and noble practices such as paying *zakat*, charity, *infaq*, endowment, and even fulfilling the other commandments of Islam like performing the hajj.

Zakat and Keynesian Model of Aggregate Consumption Function

According to Susamto (2002), this discussion should begin with the following assumptions:

(i) *Zakat* is imposed on all incomes, business and investments owned by individuals or firms.
(ii) The payment of business *zakat* is big, and dominant part of the national income.
(iii) Missionary movement and the awareness of *zakat* is high, to the extent that every Muslim is required to pay *zakat (muzakki*) and are willing to pay *zakat*.
(iv) The proportion of collected *zakat* is a fixed, and amounting to a certain proportion of national income.
(v) *Zakat* collected is distributed to the *mustahiq* (the person entitled to receive *zakat*).
(vi) *Mustahiq,* who received *zakat*, has a marginal propensity to consume which is significantly higher than the marginal propensity to consume of *muzakki*; and
(vii) While *zakat* is bestowed by muzaki is considered as deductible for taxable income, *zakat* received by *mustahiq* is exempted from such taxation.

According to Ahmad (1987:15); Metwally (1995:49) and Susamto (2002), it is assumed that in the economy, total income is equal to total output, and can be expressed in an equation as follows:

$$Y = C \quad (1)$$

$$C = a + bY \quad (2)$$

In Islamic economics, macro consumption consists of two distinct types, namely *muzakki* consumption (*zakat* payer) and *mustahiq* consumption (recipient of *zakat*). Then the consumption equation in Islam is:

$$C = c + aY_a^d + bY_b^d \tag{3}$$

where *a* represent the marginal propensity to consume (MPC) of *muzakki*, *b* represent the marginal propensity to consume (MPC) of *mustahiq*, Y_a^d and Y_b^d represent disposable income in each economic character. *Muzakki* holds a certain proportion of national income, mY , and the remaining $(1-m)Y$ belongs to *mustahiq*, zY belongs to *zakat* rate paid and vY belongs to *infaq* and *shadaqah* rate paid, the economics function will be as following:

$$C = c + aY_a^d + bY_b^d$$

where,

$$Y_a^d = mY - zY - vY \ \ (muzakki) \tag{4}$$

and

$$Y_b^d = (1-m)Y + zY + vY \ (mustahiq) \tag{5}$$

From equation (3), (4) and (5), the following equations can be derived:

$$C = c + aY_a^d + bY_b^d$$

$$C = c + a(mY - zy - vY) + b[(1-m)Y + zY + vY] \tag{6}$$

$$C = c + amY - azY - avY + bY - bmY + bzY + bvY \tag{7}$$

According to Keynes (1936), the consumption function is the central theory of economic fluctuations, and this theory plays an important role in macroeconomic analysis to date. Keynes' assumptions about the consumption function can be explained as follows (Mankiw 2000, Branson 1989, Sachs & Larrain 1992; Wijaya 1999);

a. The marginal propensity to consume is a value between zero and one.
b. The ratio of consumption to income or average propensity to consume decreases when income increases.

c. Income is an important determinant of consumption while interest rate does not play an important role.

Based on the three assumptions, the consumption function can be written as follows:

a. Linear Consumption Function in Conventional Economics

For the conventional economics where it is assumed that there is no *zakat* and no tax, (T=Z=0) the consumption function usage is as shown in equation 2, that is:

C = a + bY

where:

C = consumption; Y = Income

a and *b* are constants, a>0 ; 0 < b < 1

In this case, the average propensity to consume is:

$$\text{APC} = \left(\frac{C}{Y}\right)_{t=z=0} = \frac{a}{Y} + \text{b} \tag{8}$$

And the marginal propensity to consume is:

$$\text{MPC} = \left(\frac{dC}{dY}\right)_{t=z=0} = \text{b} \tag{9}$$

b. Linear Consumption Function in Islamic Economics

Consumption function in Islamic economics based on equation (7) becomes:

$$C = c + amY - azY - avY + bY - bmY + bzY + bvY$$

Hence equations APC and MPC are derived as follows:

$$\text{APC} = \left(\frac{C}{Y}\right)_{Z+F>0} = \frac{c + amY - azY - avY + bY - bmY + bzY + bvY}{Y}$$

$$= \frac{a}{Y} + am - az - av + b - bm + bz + bv \tag{10}$$

$$\text{MPC} = \left(\frac{dC}{dY}\right)_{Z+F>0} = am - az - av + b - bm + bz + bv \tag{11}$$

With reference to equations (8), (9), (10) and (11), it is clear that there is a difference between the consumption function in conventional economics and the consumption function in Islamic economics as expressed in the following equations:

$$\left(\frac{C}{Y}\right)_{Z>0} > \left(\frac{C}{Y}\right)_{t=z=0} \tag{12}$$

$$\text{and } \left(\frac{dC}{dY}\right)_{Z>0} > \left(\frac{dC}{dY}\right)_{t=z=0} \tag{13}$$

From equations (12) and (13) it is clear that consumption in Islamic economics is larger after the introduction of *zakat* fiscal policy compared to conventional consumption before *zakat* is introduced. This means that *zakat* could increase consumption.

This occurs because the marginal propensity to consume of the poor is often higher than the marginal propensity to consume of the rich. Basically a poor man who during this period while has no income or very little income or families with low income wants to maintain the mentality of "keeping up with the Joneses". They would feel compelled to use all their income or earnings for its intended purpose. This implies that the distribution of *zakat* in cash for consumption purposes will be spent in an instant. Recipients of *zakat* will use all their income from *zakat* to meet their basic needs only. This is in contrast with *zakat* payers, due to the lower marginal propensity to consume, are able to save part of their income, invest or spend in the path of Allah, such as pilgrimage, umrah, charity, endowment, and so forth.

According to Siddiqi (1988) and Kahf (1999), with *zakat*, the average propensity to consume and the marginal propensity to consume will decline in the short run, but the decline is smaller in Islamic economics compared with the decline in conventional economics which does not have the same fiscal policy. But in the long run, the rate of public consumption in Islamic economics will experience an increase due to the improvement in the standards of living of *zakat* recipients. Therefore, the demand for basic necessities will increase in line with the increasing standards of living of *zakat* recipients. However, Islam recommends the use of a medium that is moderate and not

wasteful (*israf*) and excessive (*tabthir*). Besides in appreciation of the faith in the afterlife among Muslims, this effect of *zakat* will result in a balanced and stable increase in consumption in the long run.

Methodology

The Model

This study aims to identify the impact of *zakat* distribution on aggregate consumption in Malaysia. The model used in this study is based on a model developed by Metwally (1995) and establishing using Islamic economics model as in the following equation (7):

$$C = c + amY - azY - avY + bY - bmY + bzY + bvY$$

With reference to the model developed by Metwally (1995), and assuming that there is no instrument of interest rates and no tax distribution in the economy, as such the interest rates variable and distribution tax is not included in this research model. Equation (7) is a model used to test the hypothesis whether there is any impact on the distribution of *zakat* on public consumption.

To moderate the coefficients of the equation above, the consumption model in this study is as follows:

$$\ln PC_{it} = b_0 + b_1 \ln DY_{it} + b_2 \ln Z_{it} + \mu_{it} \quad (20)$$

where,

t	=	year
i	=	States in Peninsular Malaysia (1, 2, ..., 11)
PC	=	Aggregate consumption of Malaysian society
DY	=	Disposable income (Y – *zakat*)
Z	=	*Zakat* money distribution in the state

Source of Data

This research uses secondary data obtained from the Department of Statistics, Malaysia, Federal Territory *Zakat* Collection Centre (MAIWP), the National Audit Department, Bank Negara Malaysia, the publisher of Malaysia Plan (RMK-7, MP-8 and RMK-9) and from other related bodies. Secondary data used are panel data (panel

data) that include time series and cross sectional data from 2001 to 2008. The scope of the data collected includes the eleven states in Peninsular Malaysia and does not include the Federal Territory of Labuan and Putrajaya where there, no data are available. The data used are data of the collection and distribution of *zakat* in the various states in Peninsular Malaysia, household expenditure and income per capita.

Econometric Methodology and Specification

The model that is used to analyze the impact of the distribution of *zakat* on consumption in the states in Peninsular Malaysia is the panel data model. According to Hsiao (2003) and Frei & Campbell (2006), panel data has both the time and space dimensions. Panel data is the type of data that combines time series and cross-sectional data and its application has its very own advantages in that rich information could be prepared to develop the estimation techniques and theoretical outcome. The use of panel data is also intended to overcome the limitations of the data. If each cross-sectional unit has a number of similar time-series observations then it is known as balanced panel. On the other hand, if the number of different time-series observations is different from each cross-sectional unit, then it is known as the unbalanced panel. This research chooses to use the panel data because of the following advantages: More informative, varied, larger and more efficient degree of freedom.

i. Heterogeneity not homogeneity,
ii. More informative, varied, greater degree of freedom and more efficient,
iii. Avoiding the problems of multi-co-linearity.
iv. Better to detect and measure the influence that cannot be observed in the pure cross-sectional data or pure time-series data,

Baltagi (2001) A panel data regression is different from a regular time-series regression or normal cross-sectional regression because in panel data regression each variable contains a double subscript (*it*) (Baltagi, 2001; Park, 2008) that is, cross-sectional subscript (*i*) and time-series subscript (*t*). The common formula for panel data regression is as follows:

$$Y_{it} = \alpha + \beta_j X_{it} + \mu_{it} \quad i = 1, \ldots\ldots, N \; ; \; t = 1, \ldots\ldots, T$$

with i = 1, ..., N shows the number of households, individuals, industries, countries, states and so, while the t = 1, ...,T, t indicates time. Therefore, i indicates the cross-sectional dimension, while t indicates the time series dimension, α is the intercept, β is a coefficient K x 1 and Xit 'is i tth observation on K explanatory variables. Generally, the application of panel data using a one-way error component model is in the form:

$$u_{it} = \mu_{it} + v_{it}$$

where μi is shows the influence of specific individuals that cannot be observed, and v_{it} is the residual disturbance. The u_{it} value of will vary for each individual unit and time until it is a common disturbance which usually occurs in regression analysis. In the analysis of panel data models, there are three approaches: pooled least square, fixed effect model.

Results Of Empirical Study And Discussion

The management and administrative model of *Zakat* in Malaysia, according to the Malaysian law system all religious matters are under the jurisdiction of each state in this country. This is specifically laid down under Article 74 (2) of Federal Constitution. Therefore, the administration of *zakat* in Malaysia lies with the respective Islam Council of each state and the federal territories also have their own councils. Thus *zakat* is managed by State Religious Council where every state has difference *zakat* management system.

Besides, the administration of *zakat* has been in Malaysia for quite some time now, and *zakat* can be deducted from individual income tax under the Income Tax Act 1967 Section 6A (3) for the current year (Selangor *Zakat* Board, 2006). Apart from that, in Malaysia, *zakat* payment is tax deductible for tax up to 100 percent. According to the Income Tax Act 1967, those who pay *zakat* are exempted from paying income tax at the rate *zakat* is paid. This is stated in item 6A (1) of the act:

> *"6A (1). Subject to this section income tax charged for each year of assessment upon the chargeable income of every individual resident for the basis year for that year shall be rebated for that year of assessment in accordance with subsection (3). A rebate shall be granted for a year*

> *of assessment for any zakat, fitrah or any other Islamic religious dues payment of which is obligatory and which are paid in the basis year for that year of assessment, and evidenced by a receipt issued by, an appropriate religious authority established under any written law".*

As a result, *zakat* collection has been very encouraging in the states in Malaysia and is steadily increasing from time to time. This can be seen in Table 1 which shows the comparative collection of *zakat* among the various states. Table 1 shows the average collection of *zakat* in the year 2008 that experienced an increase of 22 percent amounting to RM1, 038,092,894.24 as compared with RM 806,284,071.53 in 2007. The biggest increase in the distribution of *zakat* is 36 percent registered in the state of Sarawak, followed by Kelantan and Kedah, with 31 percent each. The increase in the distribution of *zakat* is the smallest in the state of Penang, which rises only by 11 percent.

Table 1: Comparative Performance of *Zakat* Collection between 2008 and 2007

States	***Zakat* Collection**		
	2008	**2007**	**Change**
W.P	211,364,697.68	173,815,154.35	18%
Selangor	244,409,628.00	202,193,541.00	17%
Johor	100,737,539.79	73,321,840.00	27%
Terengganu	66,200,415.14	51,442,341.96	22%
Perak	56,962,446.06	41,276,179.92	28%
Pulau Pinang	41,764,273.00	37,085,282.00	11%
Pahang	57,935,146.89	41,487,155.81	28%
Kelantan	58,167,095.10	40,199,886.62	31%
Kedah	53,202,300.24	36,692,723.92	31%
N. Sembilan	37,409,710.68	29,356,271.66	22%
Melaka	26,905,934.29	22,067,022.30	18%
Sarawak	36,099,969.34	23,132,088.56	36%
Sabah	23,799,155.06	17,514,982.50	26%
Perlis	23,134,583.00	16,699,600.00	28%
Total	**1,038,092,894.24**	**806,284,071.53**	22%

Source: Pusat Pungutan *Zakat* MAIWP (2008)

Impact *Zakat* on Aggregate Consumption

In this consumption model equation, all the independent and dependent variables are changed by logarithmic transformation. The value of income used is the income of the individuals for consumption after *zakat*.

Table 2.

Coefficients of Consumption Function

Variable	Coefficients	t-stat	Prob
Constants	5.431665	37.11721	0.0000
LOG(YD_?)	0.780276	3.986464	0.0002
LOG(Z_?)	0.362629	7.832097	0.0000
Adj. R-Square	0.994577		
F-statistic	1330.627		
Prob (F-Stat)	0.000000		
Durbin-Watson Stat	2.010807		

$$\ln PC_{it} = 5.432 + 0.780\ \mathrm{LnYD}_{it} + 0.363\ \mathrm{LnZ}_{it}$$
$$(37.12)^* \quad (3.986)^* \quad (7.832)^*$$
$$R^2 = 0.99 \qquad F = 1330.627$$

Detecting Autocorrelation in the Error Term

Since the true population errors are not observed, all autocorrelation detection procedures are based on regression residuals which are the sample estimates of the population error terms. Durbin-Watson is, together with AFD unit root test, the most commonly used test in time series. However, it is important to know that it is not relevant in many instances, for instance if the error distribution is not normal, or if you have the dependent variable in a lagged form as an independent variable this is not an appropriate test for autocorrelation. A test that is suggested that does not have these limitations is the Lagrange Multiplier test for autocorrelation or Breusch-Godfrey test.

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.977679	Probability	0.146270
Obs*R-squared	4.232660	Probability	0.120473

Since the p-val is higher than 1% but below 10%, the rejection or no rejection of the null hypothesis of no serial correlation depends on the significance level selected. At 1%, we cannot reject the hypothesis that there is no autocorrelation.

Detecting Heteroscedasticity

Implicit in hierarchical linear models are assumptions concerning the distributions of the error or residual terms at the various levels of the hierarchy. In most cases, it is assumed that the errors in the level-1 model are normally distributed with expected mean zero and equal variance. Violation of this assumption is not without consequences: if the level-1 variances are assumed to be equal but are really unequal, the point estimation of the level-2 coefficients will not be biased. However, these estimates will be inefficient and the associated standard errors will be biased. As such, it is advisable to check the validity of the assumptions after model specification by performing a test for the homogeneity of the level-1 variances.

White Heteroskedasticity Test:			
F-statistic	1.722864	Probability	0.186369
Obs*R-squared	3.717406	Probability	0.155875

The result show clearly that there is no heteroscedasticity. The null hypothesis of heteroscedasticity must be rejected.

Table 2 shows at the above, the expected aggregate consumption equation [log (PC)] that is being positively influenced and based on the t-test which is significantly influenced by disposable income variable [log (YD)], and distribution of *zakat* [log (Z)] significant at α = 1 per cent. By F-test, it is noted that the independent variables

are significant at α = 1 percent influence on aggregate consumption. R^2 value is generated by the regression equation and is quite high at 0.99. Which means that the variation in the behavior of dependent variables can be explained by the independent variables in the model by as much as 99 percent, and the remainder of 1 per cent by the other independent variables outside the model.

The distribution of *zakat* in the above analysis is found to have a positive and significant impact at the level α = 1 percent with a coefficient of 0:36. That means that if the distribution of *zakat* increases by 1 percent then public consumption will increase by 0:36 percent. The study shows that *zakat* distribution in Malaysia is capable of affecting public consumption of Muslims consisting of *zakat* payers and *zakat* recipients.

An analysis of the results of the studies of *zakat* distribution above states that *zakat* distribution has a positive impact on public consumption, even though the impact is clearly small at only 0:36 per cent. This means the hypothesis that *zakat* distribution will have a very high impact on consumption cannot be supported. The results of this study is not consistent with the theoretical study which states that the marginal propensity to consume of the poor is always greater than the MPC of the rich. There are two implications or two scenarios why this could happen.

First, the impact of *zakat* distribution in the states in Malaysia on consumption is still very small at only 0.36 per cent, which means that every 1 per cent increase in *zakat* distribution will result in a 0.36 percent increase in public consumption, or that a 1 percent growth in *zakat* distribution will stimulate an additional consumption of RM3.60 from every increase in RM1, 000.00 consumption.

The value of RM3.60 is concluded to be a very small amount compared with the rate of *zakat* of 2.5 percent of income, or RM25.00 for every increase of RM1, 000.00 in consumption. Or, if computed using the marginal propensity to consume on an income of 0.780, then the increase in the value of (2.5% x 0.78 of the MPC), that is equal to 0.0195 or RM19.50 for every RM1, 000.00. This shows that the portion of *zakat* fund is low compared with the total amount of public consumption in Malaysia.

In general, the impact of *zakat* on public consumption assessed based on the coefficient of the *zakat* variable of 0.36 percent possibly shows that the states in Malaysia have not been able to improve the role of *zakat* distribution for public consumption. *Zakat* distribution may only be enjoyed by a small part of *mustahiq* community only, and even that has not been spread out evenly over a wider spectrum of consumption, but only to ensure continuity in the consumption of beverages, and this is not the ideal increase in consumption to the extent as to reduce poverty and change their status from *mustahiq* to *muzakki.*

Second, if only a small portion of *zakat* is given *zakat* money on component wise may give clear picture as to way the effect is 0.36 only, this is reasonable because *zakat* in Peninsular Malaysia is not meant to meet basic needs only, but is distributed to meet other needs as well. Besides financial aid for consumption, there are other forms of assistance such as housing assistance, emergency financial aid, monthly food aid, school fees assistance, educational assistance, scholarship and others.

The impact of distributed *zakat* on consumption is small and this may be due to fact that the poor and the needy, as recipients of *zakat*, for basic consumption in the form of monthly food assistance, monthly financial assistance and other forms of assistance may also be given such as educational assistance for the children, children's school fees assistance, house rental assistance, public transportation assistance, emergency assistance/retail. This means that the poor and the needy may be getting more than one type of financial assistance that is being distributed by the *zakat* board. This statement is supported by the Selangor *Zakat* Management Report 2006 (Selangor *Zakat* Board 2007) which states that the Selangor *Zakat* Board [LZS (MAIS)] provides monthly financial assistance to the poor and the needy recipients. In addition, LZS (MAIS) also provides monthly food assistance, rent assistance, emergency assistance and subsistence needs such as water/ electricity bills, assessments payable and others. The children are given assistance such as scholarships, bursaries and financial loans for education. (Lembaga *Zakat* Selangor 2007: 22-27)

The results of this study shows that *zakat* distribution in the states in Malaysia and distribution to provide basic assistance has been adequate and in fact is more than

what is expected. If this happens, it would be appropriate if the monthly financial assistance be reduced and distributed in the form of assistance that can generate income such as capital, or the tools to work. This sponsorship is based on the *hadith* of the Prophet from Anas Bin Malik, who reported the story of a youth Ansar who met the Prophet and asked for food. Then the Prophet (s.a.w) sold the goods that belonged to the youth at two *dirhams* and he said: "*Buy one dirham worth of food for your family at home, and use one more dirham to buy an axe and bring it here*." Later the youth came back with an axe he just bought and met the Prophet (s.a.w.). The Prophet (s.a.w) welcomed him and held his hand tightly and said: "*Take this axe and go to look for wood and then sell the wood ..... you do not come back to me within fifteen days*." Ansar complied fully with the instructions of the Prophet (s.a.w.). After fifteen days he again met the Prophet (s.a.w.), with ten *dirhams* in his hands. Hadith Reported by Ibn Majah, Termidhi and Nasa'i (Pusat *Zakat* Melaka 2011).

This kind of business effort should be encouraged and financial assistance be provided to start new business or to expand existing business because the poor and the needy surely have the ability to work hard hoping that they are not going to be poor for the rest of their lives and that their descendents are not as poor and as needy as they are. Besides, the poor and the needy should not be perceived as not having the ability to start a business or to expand their existing businesses. This group has the right and qualifies for capital assistance necessary to initiate or to expand their entrepreneurial efforts and to ensure them a better life as shown in Figure 1.

Figure 1: Distribution of *Zakat* funds for sustainable empowerment of Fakir and Poor

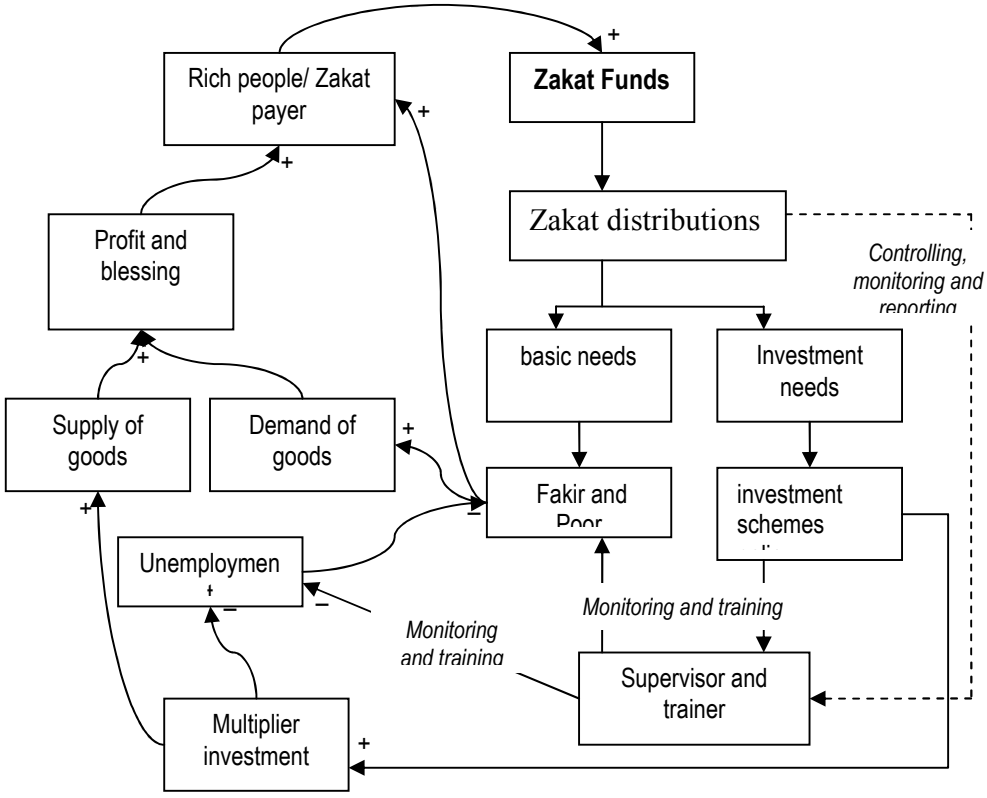

Figure 1 shows the multiplier effect of *zakat* distribution in the form of capital investment and current needs at the same time. If the poor and the needy who have the ability to work, for instance possessing the necessary skills, then they are entitled to a share of the *zakat* to use those skills. But if the recipients do not have the skills, then the *zakat* board can work with the trainers to provide training until they acquire the ability and the skills needed. Once they are able to work as expected, they should be provided with the necessary financial assistance and be supervised or monitored to ensure that the capital assistance provided is used for the purposes intended and not otherwise. This will have an effect on reducing the number of disadvantaged, poor and unemployed.

Apart from that, unemployment is to increase if the poor and disadvantaged have the skills, but do not have the capital. Thus, *zakat* fund can be distributed as capital

assistance to this group. Surveillance or monitoring must be conducted to ensure the proper use of the financial assistance provided.

The increase in investment would have a multiplier effect, such as in reducing unemployment, and an increase in supply and demand of goods. With the increase in the demand and supply of goods, profits earned by investors would increase in the long run, and the multiplier effect will have an effect on the change of the status of *zakat* recipients to that of *zakat* payers. The change in the status of the recipient to that of the payer will be followed by an increase in living standards. This is actually the main purpose of the distribution of *zakat*, the change in status of the recipients to become the payers and an increase in the standards of living. *Zakat* fund will continue to revolve and will not be depleted but further improved to reduce poverty and unemployment.

Conclusion

Zakat distributed is said to have an impact on consumption, but its impact is very small despite the theoretically stated propensity to consume of the recipient is greater than of the *zakat* payers. Moreover, in theory, *zakat* distribution may be sufficient to meet basic needs only, to the extent that *zakat* distributed is to be used to meet current needs. However in this study, only 36% of distributed *zakat* is channeled to consumption. This is the case possibly because the poor and the needy received other financial assistance in the form of monthly basic assistance. In addition, the small effect of the distribution of *zakat* on consumption may be due to the data used, from aggregate consumption of both Muslims and non-Muslims, while *zakat* collected is distributed to meet the needs of Muslims.

Distribution of *zakat* in Malaysia to achieve the goal of meeting the basic needs can be said to have been comprehensive. Thus, in addition to assistance for the purpose of consumption, the more effective method of assistance is the assistance that provides a long-term effect that enabled *zakat* recipients to earn regular incomes and thus be able to pay *zakat*. As the Chinese saying goes "it is better to give them the fishing rod and hook than to give them the fish." The multiplier effect of the fishing rod (capital or training) is greater than the multiplier effect of fish (money for expenditure), i.e. it

can reduce unemployment, increase investment and have an effect on poverty reduction, and subsequently increases *zakat* payment because the poor and the disadvantaged who have been the recipients have now become the payers of *zakat*.

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