TENDENCY OF PAYING ZAKAT AMONG MUSLIM WOMEN INVOLVING IN MICRO OR SMALL-SCALE ENTERPRISES IN MALAYSIA

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ABSTRACT

The study attempts to investigate the tendency of zakat payment among Muslim women who are receiving financial assistance from the microfinance program in Malaysia. For this purpose, the study surveyed respondents who are the participants of Amanah Ikhtiar Malaysia (AIM) program employing convenience sampling in Kelantan dan Perak. The analyses are completed using descriptive statistics, tests of mean differences of dependent samples and logistic regression. The findings of the study show there is a significant difference between income level before and after the respondents joined the scheme. Most importantly, the probability of paying zakat among respondents is not contributed by the income obtained after joining the program. It is found that the tendency of paying zakat is contributed significantly by the small household size and location of respondents living.

Keywords: *Amanah Ikhtiar Malaysia, Muslim women, Zakat.*

INTRODUCTION

Among the developing countries, Malaysia has recorded a success story and an excellent remark in reducing the poverty level in the country. In 1999, the population reported 8.5% was under the poverty frontier. However, in five years of tenure, i.e., in 2004, Malaysia able to diminish the population living underneath the poverty level to only 5.7%. Microfinance is one of the objectives of Dasar Ekonomi Baru (DEB) known as New Economic Policy (NEP) which was launched by the Malaysian government to reduce poverty and income disparities

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in Malaysia. One of the unique features of the microfinance program is that most of the patrons of microcredit institutions are women. These women patronize microfinance institutions to get microcredit used to start various income-generating business activities. In Malaysia, women's participation in the labor force has been increasing tremendously from 2.4 million in 1990 to 3.9 million in 2009 (http://www.kpwkm.gov.my). Women's participation in the labor force, whether it is in the large corporations, medium or small scale companies, had dramatically assisted in reducing the number of households in poverty in Malaysia from 409,300 in 1990 to 228,400 in 2009 (http://www.kpwkm.gov.my). Another positive outcome as a result of women's participation in the labor force is that the additional income obtained can be used toward increasing the quality of life and also the socio-economic status of the family members.

Historically, Professor Dr. Muhammad Yunus from Bangladesh in 1976 introduced micro-credit poverty eradication and has since expanded to all over the world. Grameen Bank's history began when Dr. Muhammad Yunus, a Lecturer of Economics at the University of Chittagong, Bangladesh, researched the poor who rarely involved in banking activities. Its expansion in Malaysia occurred in the year 1986, initiated by Professor. David Gibbons and Associate Professor Sukor Kasim, who was at that period serving at Universiti Sains Malaysia (USM). The initial project to examine the suitability of Grameen Bank's approach, known as Projek Ikhtiar (later known as 'Amanah Ikhtiar Malayasia', AIM), was conducted by USM and funded by the Selangor State Government, the Islamic Economic Development Foundation of Malaysia and Asia-Pacific Development Centre.

Zakat is one of the five pillars of Islam which envelopes both material and spiritual worship. Zakat also has socio-economic goals, apart from compulsory worship. Therefore, it has an influential position in the development of the Muslim community. This aims to purify the wealth and positions by giving a certain amount of money to the poor and the needy from the net income exceeding nisab for a full year. The term originated from the Arabic verbal root, which means increase, purification and blessing. By paying this, it aims at raising grace, purification and good works (Hafidhuddin, 2002). Al-Qardawi (1993) stated that this intelligence obligation refers to the twenty-seventh place in the Holy Qur'an, where thirty times zakat was associated with prayers. Numerous prominent hadiths emphasize this necessity.

Throughout the years, the abstraction of zakat revolted and it is now considered as one of the essential sources of Islamic economic development, acting as a resource of financial mark to jump-start the economy of the Muslim society (Anita Md Sharif, Wan Noor Hazlina Wan Jusoh, Norudin Mansor, & Kamaruzaman Jusoff, 2011). Thus, every Muslim individual who fulfills the required conditions (nisab) must pay zakat, to ensure zakat contribution can fulfill its role in the development of the economy of Muslim society. Although the required payment of business zakat clearly stated in the Holy Qur'an and other sources, there is less awareness among some Muslims business community or are still baffled about the subject of zakat obligation.

On the other hand, the level of understanding of individuals in Islamic principles motivating people to fulfill the order to pay zakat. This is supported by Aidit (1998) and Qardawi (1998), who argue that non-compliance with the obligation to pay intelligence is primarily due to the level of faith in individuals in religious obligations. Reinstein (2006) also found that religious faith is an essential determinant of religious and secular giving. Lunn et al. (2001) also agree with the effect of a person on religious belief. It was also noted (Lunn et al., 2001) that the relationship between religious inclusion and religious participation is positive. Firdaus et al. (2012) discovered that Muslims who paid zakat monthly and annually in both periods tend to have stronger faith, appreciation, sacrifice and self-esteem. Since there is almost no difference between the perceptions of those who pay the zakat to be formal or informal institutions, he predicts the total zakat potential in Indonesia and explores the relationship between demographic characteristics and zakat payments. The results show that the sum of the various zakat potentials in Indonesia is around 217 trillion rupees which equivalent to 3.4% of Indonesia's 2010 GDP. The study shows that education, occupation and income are important factors affecting the frequency of the participants and the choice of place when paying zakat and charity.

As the microcredit program is aimed to combat the poverty issues in multifaceted nations among underdeveloped and developing countries, some works of literature are reviewing at the results of the program by analyzing the impact of it in reducing poverty. Chowdhury, Gosh and Wright (2005) highlighted two peculiar findings from their study in Bangladesh. Firstly, the effect of micro-credit on poverty. Secondly, micro-credit is associated with both lower objective and subjective poverty. However, a study commenced by Mayoux (2001) on microfinance in Cameroon found significant disparities in the victory of women enterprises

financed by microcredit. Mayoux (2001) responded in the study, rather than the class background, the modifications seem to come from the women's ability to mobilize and galvanize social networks.

The present study looks at the tendency of Muslim women, who obtained micro-credit assistance from Amanah Ikhtiar Malaysia (AIM) to set up micro and small enterprises, to pay zakat. The study uses a survey method to obtain primary data from the participants of the AIM program. The assembly of this paper is as follows. Section 1 presents an overview of microfinance in Malaysia and zakat in general, with some literature reviews. Section 2 further explains the data and methodology used in the study. Section 3 presents the findings of the study, and finally, Section 4 concludes the study with policy recommendations.

DATA AND METHODOLOGY

Participants and Sampling Procedures

In this study, the subjects include Malaysians who borrow from AIM to improve their standards of living. We limit the sample to program participants in the states of Perak and Kelantan because these two states that have a large number of program clients (refer to Table 1). We apply several stages of stratification. First, two territories or areas of each state are chosen to represent that state's recipients of AIM funding, as follows:

  i. Kuala Kangsar and Teluk Intan in Perak.
  ii. Kota Bharu and Tumpat in Kelantan.

Second, in each area, participants are selected randomly from different centers ('Pusat'), named for AIM branch offices. Since almost all survey participants are Malay, we prepared a set of questionnaires in the Malay language. Question topics include the respondents' socio-economic backgrounds, their borrowings from AIM, their incomes, payment of zakat, assets before and after borrowing from AIM, their expenditures, and their awareness of available Islamic financial products and their opinions of these products.

Data Analysis Techniques

This study utilizes several methods to analyze the results. Descriptive measures such as frequencies, proportions and mean are used to provide a general summary of the findings. To determine differences between groups, t-test for dependent sample and t-test for an

independent sample are applied for variables having two groups/categories, and *F*-test is employed for those with more than two groups/categories (One-way Analysis of Variance, ANOVA).

For more in-depth analyses, the study used a nonlinear regression model designed explicitly for binary dependent variables. The purpose of this model is to test the probability that the respondents will opt to pay zakat. Unlike linear probability model, this model adopts a nonlinear formulation in which forces the predicted values to be between 0 and 1 by using cumulative probability distribution function (c.d.f.) which is denoted by *F*. The logistic cumulative distribution function has a specific functional form, defined in terms of the exponential function. The population *logit model* of the binary dependent variable Y with multiple regressors could be expressed as:

$$\Pr(Y = 1 | X_1, X_2 \ldots\ldots) = F(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots + \beta_k X_k) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k)}}$$

(1)

In modeling determinants of opting for payment of zakat among Muslim participants of AIM, we develop a Logit Model as follow:

$$L_i (Y) = b_0 + b_1(X1) + b_2(X2) + b_3(X3) + b_4(X4) + b_5(X5) + b_6(X6) + b_7(X7)$$

(2)

Where L_i is a dummy variable with a value of 0 or 1. $L_i = 0$, if the respondent does not opt to pay zakat (the answer of 'scale 3, 4 and 5') and $L_i = 1$ if the worker opts to pay zakat (the answer of '1 and 2'). For predictor variables, among the variables included are marital status (X1), level of income after joining AIM (X2), an education level (X3), gender (X4), age (X5), dummy state (X6) and household size (X7).

In general, if we take the antilog of the slope coefficients (β's), subtract one from it, and multiply the result by 100, we obtain the *percent change* in the odds for a unit increase in the jth regressor. The percentage change could be interpreted as the probability that the respondent opt to pay zakat due to a unit increase in independent variables such as age, level of income and others.

It is also essential to highlight in which the R^2 is a poor measure of fit for the linear and nonlinear probability model (Stock and Watson, 2007). Therefore, we use another measure of fit for this model of a binary dependent variable, namely "fraction correctly predicted'. Besides, we also perform Pearson χ^2-type tests of goodness-of-fit, namely Hosmer-Lemeshow (1989) and Andrews (1988a, 1988b).

RESULTS AND ANALYSIS

Table 1 reports the description of sample respondents. The AIM participants in both provinces are overwhelmingly women. Out of total respondents of 1894 (usable data), 97.4 percent (1608 respondents) are women and 2.6 percent (43) are men, while the remaining 5.2 percent is a missing value. 100 percent of respondents are women in Kelantan. Of those from Perak, 94.6 percent (890) are women and only 5.4 percent (51) are men.

In general, sample respondents are literate. Only 12.2 percent (210 respondents) do not have any formal education. Most respondents (56.4 percent) have some primary schooling or/and lower secondary and 28.9 percent have an intermediate secondary school certificate (Sijil Pelajaran Malaysia or SPM). There is only 2.3 percent have a Malaysian higher school certificate (Sijil Tinggi Persekolahan Malaysia or STPM) needed to enter university, and 0.1 percent have a bachelor's degree or higher. By gender, most of the respondents are female at each level of education (more than 90 percent).

The overwhelming (94.0 percent) of respondents are married and the remainder (6.0 percent) are unmarried or divorced. Among female respondents, 91.5 percent married, and 5.9 percent unmarried or divorced. The marriage rate among men is slightly higher (97.7 percent, with only 2.3 percent unmarried or divorced).

Table 1: Cross-Tabulation of Demographic Data

		Gender		Pearson Chi-square value
		Female	Male	
State	Perak	890(94.6)	51(5.4)	44.77 (sig. 0.000)
	Kelantan	802(100.0)	0(0.0)	
Marital Status	Married	1510(97.3)	42 (2.7)	1.055 (sig. 0.304)
	Unmarried/Divorced	98 (99.0)	1 (1.0)	
Highest Education Level	No formal education	207 (98.6)	3 (1.4)	3.017 (sig. 0.555)
	Primary school/PMR/SRP	935 (96.5)	34 (3.5)	
	Secondary School (SPM)	484(97.4)	13 (2.6)	
	Certificate/STPM/Diploma	39 (97.5)	1 (2.5)	
	Bachelor's degree and above	2 (100.0)	0 (0.0)	

Note: Percent in parentheses.

Furthermore, the Chi-square values are obtained to test the relatedness or independence between the variables in cross-tabulation. In other words, the test is conducted to explore the relationship between two categorical variables. The test compares the observed frequencies or proportions of cases that occur in each of the categories, with the values that would be expected if there was no association between the two variables measured. The hypotheses which developed for this test are:

Hypotheses 1

Ho1: Gender is independent of states where the respondents live (Kelantan or Perak).

Ha1: Gender is dependent on states where the respondents live (Kelantan or Perak).

Hypotheses 2

Ho2: Gender is independent of marital status

Ha2: Gender is dependent on marital status

Hypotheses 3

Ho3: Gender is independent on the level of education

Ha3: Gender is dependent on the level of education

The results of the Pearson Chi-square test reveal that the variable gender is only dependent on the state where the respondents live with p-value or sig. less than 5 percent. However, gender is independent of education level and marital status. The result suggests a significant allocation of male and female respondents in either Kelantan or Perak. By looking at the original data, all respondents in Kelantan are female.

Table 2: Descriptive Statistics on Continuous Variables

Variable	N	Minimum	Maximum	Mean	Std. deviation
Age	1742	19.00	85.00	45.66	11.41
Household size	1890	1.00	18.00	5.99	2.47
Yearly income (RM)	1893	0.00	264000.00	23851.77	21496.81
Yearly Per capita income (RM)	1888	0.00	60000.00	4714.54	5118.14

As for the continuous data/variables, Table 2 shows the descriptive statistics in detailed. As for the age of respondents, the minimum age found is 19 years old and the maximum age is 85 years old. The average age among respondents is 46 years-old. The minimum household size of respondents is one member and the maximum household size is 18 members. On average, the household of respondents is about 5.9 members. The respondents are also asked about the approximate yearly income that they received after joining the AIM program. It could be extracted that the minimum yearly income received by them is none while the maximum of yearly income is RM264,000.00. The mean income per year received by respondents is approximately RM23,851.77. Besides, yearly per capita income is computed by dividing yearly income by household size. The statistics show that the maximum yearly per capita income of respondents is RM60,000.00, with a mean of RM4,714.54.

Table 3: T-test for Dependent Samples

| Variables | Paired Differences | | | | | Sig. (2-tailed) |
	Mean	Std Dvn	Std Error Mean	t	df	
Pair 1: *Yearly income per capita (before joining AIM) - Yearly income per capita (after joining AIM)*	-3675.87	4974.53	114.76	-32.03	1878	0.000
Pair 2: *Nat. log yearly income per capita (before joining AIM) - Nat. log yearly income per capita (after joining AIM)*	-1.3487	0.895	0.0207	-65.09	1865	0.000

Furthermore, we identify yearly income per capita before joining the AIM scheme and after joining the AIM scheme as the targeted variables. Since it is suspected that these two data are not normally distributed, both data are also transformed into a natural log. As referred by

paired samples statistics, the natural log yearly income per capita after the respondents join AIM scheme is higher (mean = 8.12 while SD = 0.77) compared to the natural log yearly income per capita before joining AIM scheme (mean = 6.77, SD = 0.60). As shown in Table 3, the difference between the means was observed to be statistically significant at 5% level. We also calculate the effect size for dependent samples t-test using the percentage of variance accounted for (r^2) and Eta squared (η^2). The effect size statistics indicate the magnitude of differences between the groups (before and after joined AIM scheme):

$r^2 = t^2 / (t^2 + df) = (-65.09)^2 / ((-65.09)^2 + 1865) = 0.694$ means that 69.4% of the variance in the respondents' income per capita is influenced by the involvement of respondents in AIM program;

Eta squared, $\eta^2 = t^2 / (t^2 + N-1) = 0.691$. Base on Cohen (1988, pp. 284-7), since beta squared is greater than 0.14, there is a large effect size of the AIM program on the difference of income per capita of respondents.

Table 4: Logistic regression results

Independent variables	Binary logistic			
	Dependent variables:			
	Paying zakat (1)		Paying zakat (2)	
	B	Exp(B)	B	Exp(B)
Constant	0.664 (1.477)	1.942	0.773 (1.480)	2.165
Dummy GENDER	0.60 (0.423)	1.822	0.620 (0.424)	1.858
AGE	-0.007 (0.006)	0.993	-0.007 (0.006)	0.993
MARITAL STATUS	0.124 (0.231)	1.132	0.118 (0.231)	1.125
EDUCATION LEVEL				
EDUCATION LEVEL(Category1)	0.742 (1.426)	2.100	0.727 (1.426)	2.068
EDUCATION LEVEL (Category 2)	0.744 (1.418)	2.104	0.727 (1.418)	2.069
EDUCATION LEVEL (Category 3)	1.112 (1.422)	3.039	1.091 (1.422)	2.977
EDUCATION LEVEL (Category 4)	1.830 (1.467)	6.234	1.809 (1.467)	6.104
HOUSEHOLD SIZE	-0.049** (0.022)	0.952	-0.064*** (0.024)	0.938
Dummy STATE	-1.332*** (0.115)	0.264	-1.330*** (0.116)	0.265
YEARLY INCOME	0.000 (0.000)	1.000		
PER CAPITA YEARLY INCOME			0.000 (0.000)	1.000

Diagnostic tests				
% correct classification	67.4		67.5	
Omnibus Chi-square stat.	210.5***		210.6***	
Hosmer & Lemeshow Test stat.	10.58		12.13	
Cox &Snell R-square	0.122		0.122	
Negelkerke R-square	0.164		0.164	

Notes: 1. Standard errors are in parentheses;

2. ***statistically significant at the 1% level; **5% level; *10% level.

The study attempts to evaluate the factors that might contribute to the likelihood of paying zakat among a sample of respondents who receive financial assistance from the AIM program. Logistic regression allows us to test models to predict categorical outcomes with two or more categories. The predictors/independent variables can be either categorical or continuous, or a mix of both in one model.

The model developed in this study is Binary Logistic, where the dependent variable has only two categories, one and zero. One is coded to the responses of '1(strongly agree) and 2(agree)' for the survey question on 'Do you able to pay zakat every year?' and zero is coded to the response of '3(neutral), 4(disagree) and 5(strongly disagree)' on similar question. The independent variables or regressors are *demographic variables* such as gender, age, education level, household size, marital status and income level after joining the AIM program. As for income level after joining AIM, the study is using two indicators in the model, namely 'yearly income' and 'yearly per capita income.

In some cases, the independent variables are dummy variables such as gender (1=male, 0=female), marital status (1=married, 0=otherwise) and dummy state (1=Kelantan, 0=otherwise). There are also continuous variables such as age, household size, educational level, and income level. There are two regressions (Model 1 and Model 2) formed with the first one is using 'yearly income' as an indicator of income level and the second one is using 'yearly per capita income' as an indicator of income. The results are shown in Table 4.

From Table 4, the regression results of Model 1 show that the only significant predictor is 'Dummy of state' and 'household size.' The negative value of beta (β) that is -0.049, indicates that an increase in an independent variable score that is the larger household size result in a

decreased probability of the case recording a score of 1 in the dependent variable (i.e., paying zakat). The odd ratio (Exp (β)) for this dummy variable is 0.952. This could interpret that the odds of a person paying zakat decreases by a factor of 0.952, all other factors being equal. Besides, the coefficient of the dummy state is also significant at 1% level. The negative sign of coefficient implies that for respondents from Kelantan, the odds of paying zakat decreases by a factor of 0.264 as compared to those from Perak, other things constant. Other independent variables do not contribute significantly to the probability of paying zakat among respondents. In Model 2, when the indicator of income changed to yearly per capita income, the results are almost similar to Model 1 with the two variables, dummy state and household size, which are also significant at a higher degree. Thus, overall, the probability of paying zakat among respondents is not contributed by the income obtained after joining the program even though there is a significant difference between income obtained before and after they join the AIM program. Importantly, the tendency of paying zakat founded contributed significantly by small household size and location of respondents living.

In both models, the classification table, with no predictor, reports that the overall percentage of correctly classified cases is 57.8% in both models. When a set of predictor variables is entered, it improves the accuracy of this prediction to 67.4% and 67.5% for both Model 1 and Model 2, respectively. Since the Omnibus tests of Model coefficients in Block 1 are significant (p-value < 0.05) in both cases, the models with a set of variables used as predictors are better than the SPSS's original guess shown in Block 0. The Chi-square values in this test are 210.5 and 210.6, with 10 degrees of freedom, respectively. The Hosmer & Lemeshow test also supports the 'goodness of fit' of the models with the Chi-square statistics of 10.58 and 12.13, respectively, with a p-value of more than 0.05. The pseudo-R-square statistics (Cox & Snell R-square and Nagelkerke R-square) show that between 12% and 16% of the variability in the dependent variable is explained by the set of predictor variables in the model respectively.

CONCLUSION

The purpose of this research is to investigate the tendency of zakat payment among Muslim women who are receiving financial assistance from the microfinance program in Malaysia. In this study Convenience sampling method is employed in collecting respondents who are

participating in Amanah Ikhtiar Malaysia (AIM) program from Perak and Kelantan, with a reason that these two states have a large number of program clients.

After several stages of stratification, only 1894 Muslim respondents are usable for this analysis. Women comprise 97.4% of the total respondents. In obtaining the results, this study used a nonlinear regression model designed explicitly for binary dependent variables in testing the probability that the respondents opt to pay zakat. Besides, descriptive measures are used to provide a general summary of the findings and testing for differences between groups.

The results also show that more than 90% of the respondents are female at each education level. The result of cross-tabulation explains that female respondents are more dominant, with 100% of respondents are female from Kelantan, while 94.6% from Perak. It concluded that the tendency of paying zakat among respondents Muslim women from AIM is significantly contributed by small household size and location of respondents living.

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