

Poverty Measurement by Islamic Institutions

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Abstract—Islamic institutions in Malaysia play a variety of socioeconomic roles such as poverty alleviation. To perform this role, these institutions face a major task in identifying the poverty group. Most of these institutions measure and operationalize poverty from the monetary perspective using variables such as income, expenditure or consumption. In practice, most Islamic institutions in Malaysia use the monetary approach in measuring poverty through the conventional Poverty Line Income (PLI) method and recently, the *had al kifayah* (HAK) method using total necessities of a household from an Islamic perspective. The objective of this paper is to present the PLI and also the HAK method. This micro-data study would highlight the similarities and differences of both the methods. A survey aided by a structured questionnaire was carried out on 260 selected head of households in the state of Selangor. The paper highlights several demographic factors that are associated with the three monetary indicators in the study, namely income, PLI and HAK. In addition, the study found that these monetary variables are significantly related with each other.

Keywords—Poverty line, multidimensional, necessities, monetary

I. INTRODUCTION

POVERTY is a situation exemplified by insufficient material resources. For many years this situation is explained through the perspective of material shortcomings especially from the perspective of income. However, poverty is no longer defined objectively but it exists in a multidimensional nature as mentioned by [1]-[2]. It is not solely looked from the perspective of material resources but depends on how it is perceived and how it is measured, meaning it depends on who defines it as explained by [3]-[4]. The most common approach used by economists to explain poverty is the monetary approach [5]. Specifically, poverty means a person unable to obtain a certain level of income to attain economic wellbeing or in an aggregate term explained as lacking of economic welfare [6]. This approach is based on the utility theory which explains an individual would attain satisfaction from consumption of goods and services [5]. Individually, the concept of wellbeing is widely used to explain the level of satisfaction, while in the aggregate context, the concept of economic welfare is used to explain the wellbeing of the society.

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From the Islamic point of view, poverty is perceived almost similarly to the conventional definitions. In explaining the concept of poverty from Islamic perspective, Yusuf Qardawi [7] cites that Imam Nawawi points out that Islam outlines the self-sufficiency for an individual as the availability of basic food and drinks, shelter and other basic needs as defined by the society in which he or she belongs to. This broad definition gives room to scholars to examine and deliberate various components of basic needs of an individual or household in defining the poor in today's socio-economic settings.

The objective of the paper is to examine the present poverty measurement practiced by Islamic institutions in Malaysia. This paper is organized as follows. The next section outlines the methodology undertaken in this study. Section III present the findings of the study. Finally, the conclusion of the study is highlighted in section IV.

II. METHODOLOGY

A. Conceptual Framework

The poverty measurement adopted in this study is based on the poverty gap approach with z as poverty gap, z' as adequacy of income, y as household income and k as the poverty line income or necessities of the household, explained by (1).

$$z = \{1 - (y / k)\} * 100 \% \quad (1)$$

or

$$z' = (y / k) * 100 \%$$

Islamic institutions normally adopt the monetary approach in measuring poverty either through *had al kifayah* (HAK) method using total necessities of a household from the Islamic perspective or the poverty line income (PLI). HAK is normally calculated by each of the Islamic institutions themselves while PLI is determined by the Federal Government of Malaysia through the Economic Planning Unit (EPU) in the Prime Minister's Department. Both of these methods are almost identical as they use income to determine whether the individual or household is poor or otherwise.

The PLI takes into account the minimum requirements of household for two major components namely food and non-food items [8]. Food items are based on Recommended Daily Allowances (RDA), calculated by the Technical Group on Food (TGF) comprising of experts from the ministry of health and researchers selected by EPU. The basic needs of households are based on demographic factors such as gender and age. Non-food items are based on the World Bank's Living Standard Measurement Study introduced by [6]. Items included in the the non-food item are clothing and footwear, rent and energy, utensils, transportation and communication and finally other goods and services. These needs are based on the expenditure pattern by the lowest 20% household in the Household Expenditure Survey (HES) 2004/2005.

Thus, the poverty measurement employed is based on the necessities needed by the household to fulfill the basic needs in term of food and non-food requirements to ensure each household lead an active, healthy and proactive life .

Similarly, the HAK method determines the level of necessity needed by household members to sustain daily needs. It is calculated based on various variables such as number of members in a household, age group of members etc. Malaysian department of Zakat, Waqaf and Hajj (JAWHAR) in the Prime Minister's Department outlined the main components of HAK of a household as shelter, food, health, education and transportation based on *maqasid al-shariah* (objective of the religion) principles [9]. Household needs are calculated according to different category of households. Household members are categorized according to their status and age group, namely working parents, unemployed adults above 18 years old, children within the 7-17 age group and children within 1-6 age group. The total needs of the household is then calculated. If the total income of the household is less than the total needs, then they are considered poor and are eligible for aids from Islamic institutions. In addition, if there is any situation such as disabled member or households with cronic sickness, the total HAK or necessities of the household increases.

B. Data Collection

This quantitative research study would use data derived from a random survey of households in Selangor, the most populated state among the 14 states in Malaysia. The population in the study are muslim poor and destitute households. The data would comprise on a variety of household well-being issues gathered through interviews, using structured questionnaire with head of household or other knowledgeable members. It delves on households' economic, social and demographic data using simple random sampling technique. A representative sample was selected using proportionate stratified random sampling technique with the household heads as the respondents. 258 respondents were selected from the sampling unit comprising of past and present recipients of aid by the religious authorities in Selangor.

A close-ended questionnaire was used as a research instrument to aid five enumerators employed to collect data from the respondents identified for this study. Respondents were asked to provide personal information such as their gender, age and educational attainment, job status and household size. Specific questions pertaining to social and economic indicators such as income, type of employment and non-income wealth were also obtained. The data from the study were run through Statistical Package for Social Science (SPSS). Descriptive statistics and correlation analysis were performed to analyse the data.

III. FINDING

This section presents the findings of the study using descriptive statistics and correlation analysis.

A. Descriptive Statistics

Table I shows that from the monetary perspective, almost half of the households earned income of less than RM1000 as shown by Table I. However, the results show differences in the value of necessities or PLI. According to the HAK method, households earning RM1001 to RM2000 form the majority of the respondents at 62%, whereas by employing the the PLI method 86.8% households earning less than RM1000 form the majority at 86.8%.

TABLE I
INCOME, HAK & PLI OF HOUSEHOLDS

Range (RM)	Income(%)	HAK(%)	PLI(%)
≤1000	48.4	7.0	86.8
1001-2000	38.0	62.8	13.2
2001-3000	10.9	26.7	0
>3000	10.9	3.8	0

TABLE II
INCOME, HAK & PLI OF HOUSEHOLDS

Range of Adequacy (%)	HAK(%)	PLI(%)
<50	28.3	0.4
50-99	59.3	12.8
≥100	12.4	86.8

Table II depicts the adequacy level of household needs both from the PLI and HAK perspective. If the adequacy of household is less than 50%, it means that the income obtained by the household is not able to sustain even 50% of the household needs, thus qualifying itself to be categorized as destitute or hard-core poor. On the other hand, if the adequacy is between 50% and 100%, then the household is categorized as poor as it is unable to fully fulfill the needs of the household. Both the PLI and HAK method show contrasting results, with the majority of the respondents or 59.3% reported the adequacy of more than 50% for the HAK method while majority of respondents or 86.8% reported their adequacy at more than 100% based on the PLI method.

B. Correlation Analysis

The association of monetary variables with demographic factors such as age of household head, household size and number of children was performed using, Pearson Correlation Analysis. The purpose of this analysis is to analyse the degree of association between variables based on the Pearson coefficient, strong if more than 0.6, moderate between 0.4 to 0.6 and weak if less than 0.4. Thus, policy makers would be able to use this indicator as a basis in formulating policies and programs in reducing poverty. Table III depicts the association between the three monetary variables, namely income, HAK and PLI. The household income is moderately correlated to household size and weakly to number of children and age of household head. On the other hand, both HAK and PLI are strongly correlated to household size, moderately to number of children but weakly to the age of household head. In all the

three cases, household size and number of children are positively correlated while age is negatively correlated.

TABLE III
CORRELATION BETWEEN DEMOGRAPHIC AND MONETARY
VARIABLES

Variables	Income	HAK	PLI
Age	-0.289*	-0.185**	-0.275*
Household Size	0.503**	0.788**	0.964*
Number of children	0.289	0.423**	0.506*

* Significant at 0.01 level

** Significant at 0.05 level

TABLE IV
CORRELATION BETWEEN MONETARY VARIABLES

Variables	Income	HAK	PLI
Income	-	0.575*	0.637*
HAK	0.575*	-	0.837*
PLI	0.637*	0.837	-

* Significant at 0.01 level

** Significant at 0.05 level

In other words, income, HAK and PLI increase as the household size and number of children increase due to the increment of household needs and also the number of working household members. In contrast, income, HAK and PLI decrease as age of household increases due to the fact that as household heads get older, their economic productivity decreases (after certain peak age) and their economic burden decreases as household members becomes dependent economically.

Table IV shows all the three monetary variables are significantly correlated between each other. Specifically, income is moderately correlated with HAK but strongly correlated to PLI. HAK and PLI are also strongly correlated between them with the Pearson coefficient of 0.837. It is also obvious that all these variables are positively correlated.

IV. CONCLUSION

The paper have described several demographic factors that are associated with the three monetary indicators highlighted in the study, namely income, PLI and HAK. In addition, the study found that these monetary variables are significantly related with each other. These association could be used by authorities to understand the poverty phenomenon from an Islamic perspective. However, there are some drawback in the monetary approach. Firstly, needs of individuals within the same age group is not exactly the same due to the differences in metabolic rate. Secondly, non-monetary items which reflect the quality of life such as size, type and ownership of house, education level are not included in the calculation of HAK and PLI. Due to these reasons, policy makers and researchers in developed nations have opted for other approaches such as capability and social exclusion approaches which are multidimensional in nature that includes non-monetary indicators as mentioned by researchers such as [10]-[17]. Nolan and Whelan [18] highlighted that non-monetary indicators together with

monetary data would be able to improve the measurement and understanding of poverty especially in rich countries. From an Islamic point of view, poverty could be analysed through the *maqasid al-shariah* principles as mentioned by [19]-[20]. Thus, the introduction of an Islamic poverty indicator (IPI) incorporating the various dimensions would have an impact on Islamic institutions as it gives a new perspective of measuring poverty from a micro perspective. Using methods such as index, the IPI is envisaged to reflect the multi-dimensional phenomenon of poverty in a more holistic way. Thus, it is strongly recommended that a study on formulating the IPI to be carried out. This would enhance the poverty measurement from an Islamic perspective as it comprises of monetary and non-monetary components using *maqasid al-shariah* principles.

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