

Poverty Measurement in Malaysia: A Survey of the Literature

Pengukuran Kemiskinan di Malaysia: Tinjauan Literatur

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ABSTRAK

Usaha menghapus masalah perluasan kemiskinan dan peningkatan ketidakseimbangan pendapatan menjadi fokus utama penggubal dasar pembangunan, dianggap sebagai objektif utama dasar pembangunan yang perlu diberi perhatian. Kemiskinan dan ketidakseimbangan perlu diukur dengan tepat bagi membolehkan pihak kerajaan memantau kemajuan program yang telah dilaksanakan, projek-projek yang masih dalam pelaksanaan dan memastikan kerajaan dapat mewujudkan insentif yang lebih relevan dengan keperluan matlamat. Kemiskinan membawa makna yang berbeza bagi golongan yang berbeza keadaan tempatan dengan mengambil kira pelbagai faktor budaya dan sosial. Kemiskinan mutlak ditakrif sebagai ketidakmampuan seseorang menggunakan sumber-sumber yang ada bagi memenuhi keperluan asasnya. Dengan kata lain, kemiskinan bermakna ketiadaan pilihan dan peluang untuk menikmati hidup yang selesa sekurang-kurangnya bagi memenuhi keperluan asas. Lazimnya, kemiskinan digambarkan melalui jangka hayat yang pendek, kadar buta huruf yang tinggi dan kekurangan sumber. Walau bagaimanapun, di Malaysia kemiskinan berkonsep dan beroperasi daripada perspektif pendapatan. Makalah ini menggariskan pengukuran kemiskinan yang diguna pakai oleh Unit Perancang Ekonomi (UPE), Jabatan Perdana Menteri, iaitu Paras Garis Kemiskinan (PGK). Di samping itu, makalah ini juga mencadangkan satu kaedah pengukuran multidimensi yang lebih komprehensif dengan menggunakan indeks. Kaedah ini mengambil kira kedua-dua indikator kewangan dan bukan kewangan bagi mengenal pasti kumpulan sasaran yang lebih realistik. Kaedah yang bersifat holistik ini dijangkakan mempunyai impak kerana memberi alternatif kepada pihak berwajib untuk mengukur kemiskinan.

Kata kunci: Multidimensi, paras kemiskinan, pengukuran

ABSTRACT

The elimination of widespread poverty and ever growing income inequality are at the core of all development problems and in fact, for many people define the principal objective of development policy. Poverty and inequality need to be measured more precisely to provide a meaningful understanding of how much progress has already been made, how much more remains to be achieved, and how to set incentives for government officials to focus on the most pressing needs. Absolute poverty is defined as the number of people who are unable to command sufficient resources to satisfy their basic needs. Economists have agreed that poverty does not have one definite concept. However, in Malaysia poverty is commonly conceptualised from the perspective of monetary or income. This article outlines the poverty measurement presently used by the Economic Planning Unit (EPU), Prime Minister's Department. Besides discussing the present poverty line income (PLI) method, the article proposes a multidimensional poverty measurement index. The proposed method comprising of monetary and non-monetary indicators is expected to capture a more realistic poverty group. Furthermore, the multidimensional phenomenon of poverty in a more holistic way is envisaged to be captured and is expected to have an impact on the policy makers as it gives a new perspective for measuring poverty.

Keywords: Multidimensional, poverty threshold, measurements

INTRODUCTION

Poverty, in the modern world today is explained in various ways. Economists agreed that poverty do not have a definite concept (Narayanan & Patel 2000; Laderchi 2000; Franco 2003). Hagenaars & De Vos (1988) described that although there are numerous definitions of poverty, almost all definitions could be put into three

main categories: (1) poverty means having less than what is objectively defined; (2) poverty is having less than others in the society; (3) poverty is a feeling of not having enough to get along.

Generally, in conventional economics there are four different definitions of poverty, namely monetary approach, capability approach, social exclusion and poverty participatory assessment (PPA) (Laderchi 2003;

Mohd Fauzi & Ahmad Fauzee Abdullah 2007). The development in the modern measurement of poverty has undergone three stages (Moisio 2001) beginning with the absolute poverty approach pioneered by Rowntree in the beginning of the 29th century in England until the early 1970s, which saw the introduction of relative poverty pioneered by Townshend (1979). Both of these income approaches were obviously measuring poverty as the lack of material resources. The second stage began with the introduction of poverty as poor living conditions such as deprivation. Works by Ringen (1985) and Bergman (2002) supported works by Sen (1979, 1980, 1987) who introduced deprivation and capability as a more complete definition of poverty using poverty indexes. Later, social exclusion was introduced as an extension of the capability approach. Today, poverty is accepted as a multidimensional phenomenon using various methods such as the poverty participation approach (PPA) method, which incorporates the perspective of poverty from the poor themselves.

Poverty in Malaysia is commonly conceptualised and operationalised from the monetary approach perspective. Economists have argued that the current monetary approach is not able to reflect the multidimensional nature of poverty, which has developed due to the rapid economic development process via globalisation and liberations of trade and businesses. Wagle (2005) emphasised that monetary based approaches, namely income and consumption are uni-dimensional and therefore, unable to capture multiple dimensions of poverty. Wagle (2005) reviewed works by other researchers such as Sen (1987, 1992, 1999) and Silver (1994) who pointed out that capability and social exclusion as more appropriate methods of defining poverty. Sen used the concept of lack of capability to function or achieve wellbeing, while Silver focused on social processes that inhibit individual from acquiring resources.

The definition of poverty is vital as it determines the way poverty is measured. Thus, it is imperative to conceptualise poverty in a more realistic way in Malaysia compared to the present income approach widely used in policy and decision-making. Nolan and Whelan (2009) stressed that non-monetary indicators together with financial or income data would be able to improve the measurement and understanding of poverty. Due to its multidimensional nature poverty is today considered as a complex set of deprivations. Therefore, the inclusion of more comprehensive indicators would enable a more holistic poverty measurement incorporating various monetary and non-monetary components. The objectives of this paper are to outline the present poverty measurement method using the income approach in Malaysia and then propose a multidimensional poverty measurement using index.

This article is organised as follows. The article will start with outlining the different approaches of poverty. It is followed by a discussion on poverty measurement

in Malaysia. Section four proposes a multidimensional poverty measurement using index in Malaysia. The article concludes with an emphasis on the importance of employing a multidimensional poverty measurement in Malaysia.

POVERTY MEASUREMENT APPROACHES

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 income perspective. However, poverty is no longer objectively defined, but exists in a multidimensional nature (Narayanan & Patel 2000; Laderchi 2000; Franco 2003). According to Mohd Fauzi (2007) poverty is not solely looked from the perspective of material resources, but depends on how it is perceived and how it is measured, meaning that it depends on who defines it. He further explains that the definition of poverty depends on the method of measurement used. Employment of correct measurement is essential in identifying certain target group, which would enable the researchers to suggest appropriate policies in addressing the issue of poverty. Each definition would describe the poor differently and would result in different estimation and extent of poverty (Benner 2001). Similarly, Laderchi (2003) stressed that choosing different definitions are as vital as they use different measurements in terms of variables. Thus, different definitions identify different dimensions of poverty and consequently identify different individuals or households as poor groups. In her study undertaken in Peru and India, Laderchi (2003) found that the usage of the different measurements has resulted in different households or individuals being defined as impoverished. The overlapping of poor individuals according to different definitions are significantly small. In other words, more than half of impoverished individuals or households in one definition would differ from the other groups and vice versa. The various approaches are explained below.

MONETARY APPROACH

The most common approach used by economists to explain poverty is the monetary approach (Laderchi 2000, Asselin & Dauphin 2001). Specifically, poverty means that a person is unable to obtain a certain level of income to attain economic wellbeing or in an aggregate term explained as lacking of economic welfare (Ravallion 1998). This approach is based on the utility theory, which explains that an individual would attain satisfaction from consumption of goods and services (Asselin & Dauphin 2001). 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.

There are various types of poverty derived from the monetary approach such as absolute poverty, relative poverty, the poverty rate and poverty gap. However, the most fundamental and most commonly used is the absolute and relative poverty concepts. Absolute poverty is associated with a certain income level required to sustain a minimum standard of living. On the other hand, relative poverty defines a person as poor when his or her income is lower than others or the national average.

The concept of absolute poverty was introduced by Charles Booth in 1887, in his study in East London (Laderchi 2000). Using the family income of the School Visiting Board, he categorised the population into eight social classes. Family obtaining less than eighteen pennies per week and with six children were defined as poor and exempted from paying school fees. Besides income, job types and living conditions were used to define poverty. Individuals without jobs and with low moral habits such as alcohol addiction and gambling were considered poor.

Besides Booth, Rowntree in his study in York, London in 1889 explained that poverty is insufficient income to sustain physical efficiency (Saunders 2004). Rowntree extended Booth's works by including food and other items such as clothing and rent as basic needs. The amount of income needed to fulfil these basic needs is known as poverty line income (PLI). He defines that poverty occur if the income obtained is below the PLI. Poverty that is defined using the PLI is known as absolute poverty and this definition, based on the work of Rowntree, is widely used across the globe (Laderchi 2000).

The works of Booth and Rowntree are the basic foundations used to estimate poverty by using income. However, economists have found that income is insufficient to explain poverty due to problems of analysis, determining the appropriate PLI and appropriate interpretation of 'sufficient level' to live. Among the shortcomings of this approach are in terms of determining the appropriate PLI as the needs of individuals differ, the households as unit of analysis is insufficient to explain the wellbeing of individuals, especially from the aspect of gender and the lack of income in explaining the real income of individuals or households.

Relative poverty is associated with the issue of inequality of income among the population. It measures the imbalance of income of the various income groups in a society. A particular income line separates each income group. A particular income group is defined as poor when its income is lower compared to others even if it is higher than the PLI. Relative poverty is widely used in developed nation where absolute poverty rarely exists. It is measured by determining the income that cuts the lowest 'p' percentage in the national income distribution (Anand 1983). In developing countries, the lowest forty percent of the income group is determined to represent

the 'p' percentage. Another method commonly used to determine relative poverty is through estimating the income of the poor group with the average national income. For example, the PLI for the poor in European Union (EU) is sixty percent of the average national income (Laderchi 2003). An important feature in the relative poverty concept is there would always be a poor group due to the existence of income inequality even if there is no household with an income below the PLI, as explained by the absolute poverty definition.

CAPABILITY APPROACH

Relating poverty to the assessment of individual wellbeing and social arrangements, the focus of capability approach is different from the traditional method that involves income as the main element of poverty. Pioneered by Sen (1985), this approach includes non-income items such life expectancy, literacy and infant mortality in measuring poverty. Rejecting the welfarist and utilitarian theories, Sen concentrates on the quality of life and emphasises on the removing of obstacles so that people could have more freedom to function. He deliberates basic capability as the freedom to do basic activities necessary to avoid poverty. Sen (1997) explains functions as activities and actions individuals want to perform including working, resting, being healthy, being literate and being respected. Alkire (2002) concurs capability as a freedom to function in daily life. From a different perspective, Robeyns (2005) stressed that capability approach emphasised on what people are effectively able to do and to be.

Contrasting with Sen's ideas, Nussbaum develops the capability approach by focussing on individual's skills and personality traits (1992; 2000). Specifically, she proposes a list of capabilities such as life, bodily health, bodily integrity, emotions etc. Sen argues the need for a list as the list is used for different purposes and each purpose could have its own list (Robeyns 2005). Ayala, Jurado & Mayo (2009) studied the relationship between income poverty and multidimensional deprivation in Spain. They found that the determinants of both phenomena vary according to regions and both have a weak statistical relationship. Similarly, Notten (2009) concurs in his study that was carried out in the physical environment of children in the Republic of Congo that monetary poverty and deprivation are not strongly correlated although they are positively related.

SOCIAL EXCLUSION APPROACH

Social exclusion is defined as a process when individuals or groups are excluded whether fully or partially from the participation with the society they live in. This concept was developed by industrialised countries to describe the phenomena of deprivation and marginalisation. This

concept was first developed by Townshed (1979) in his attempt to explain deprivation as those who are excluded by ordinary living pattern, customs and activities. In a study in England, Burchardt (1999) defined those socially excluded as those excluded from normal activities such as consumption, savings, production, political and social activities. Other researchers such as Strobel (1996), Evans (1998) and Taylor (1999) supported the idea of social exclusion approach in explaining poverty using the economic, political and cultural dimensions.

Atkinson (1999) suggests three elements related to social exclusion as relativity, agency and dynamics. Relativity refers to exclusion as related to a particular society, agency as exclusion and as outcome of an agent or agents while dynamics refers to the relevancy of the future to the current prospects. Defining social exclusion as a process of excluding individual and groups from social, economic and cultural networks, Poggi (2007) found that individuals excluded at a certain point in time have a higher probability to face the phenomenon again.

POVERTY PARTICIPATION APPROACH

The methods explained above look at poverty from the perspective of parties involved in policy making or researchers, but poverty participation approach takes into account the views of poor people themselves. Instead of viewing poverty from outside which is regarded as incomplete, Chambers (1997), who pioneered this approach pointed out that the participation of the poor themselves in decisions and policies is vital in understanding the meaning and extent of poverty. The World Bank adopted this method covering 23 countries as previous methods were criticised as inadequate when used in poverty eradication policies and programs (Narayanan & Patel 2000). Using various tools and methods suited to each locality, this approach identified five types of wellbeing, namely material, physical, security, freedom of choice and social wellbeing. The result of the study entitled *Voices of the Poor* surprisingly revealed that the poor focused on physical, human, social and environmental issues instead of income as the phenomena of poverty.

The advantage of this approach is it involves the interpretation and understanding of poverty from various dimensions depending on the subject studied. On the other hand, the disadvantage of this approach is that the process of data gathering is lengthy. Due to this, sample sizes of participants are often small, making statistical data analysis difficult (Laderchi 2003). Therefore, policy makers often do not take seriously the findings or the results reported employing this approach.

POVERTY MEASUREMENT IN MALAYSIA

The rate of poverty has decreased significantly in Malaysia from 29.5 percent in 1979 to 3.6 percent in 2007 as shown in Table 1 below (EPU 2009). However, in 2004 some states still showed high poverty rates such as Terengganu (24.2 percent), Sabah (24.2 percent), and Kelantan (10.6 percent). The data presented by EPU is based on the definition and measurement of poverty from the perspective of income using the concept of PLI as explained above. The PLI or commonly known as the poverty threshold in Malaysia is determined by the Economic Planning Unit (EPU), Prime Minister's Department.

TABLE 1. Rate of Poverty, Malaysia

Year	Poverty Rate (%)
1970	49.3
1975	43.9
1980	29.2
1985	20.7
1990	17.1
1999	8.5
2004	5.7
2007	3.6

Source: Malaysian Plans (various issues)

Currently, PLI per capita in Peninsular Malaysia is RM180 and RM190 in Sarawak and RM200 in Sabah respectively (Table 2). Table 3 depicts the PLI per capita for every state in Malaysia showing that PLI varies according to states and areas due to different standards of living in each state and area. In general, the PLI is higher in the urban compared to the rural settings, especially for Selangor, Johor and Kelantan, three states, which are relatively large in terms of size.

TABLE 2. Poverty Line Income (PLI) for Malaysia 2007

Region	Household (RM)	Per capita (RM)
West Malaysia	720	180
Sabah	960	200
Sarawak	830	
	190	

Source: Mohd Shukri Mohd Jusoh (2009)

The current PLI takes into account the minimum requirements of household for two major components, namely food and non-food items (Table 4). Food items are based on Recommended Daily Allowances, calculated by the Technical Group on Food comprising of experts from the Ministry of Health and researchers selected by EPU. The basic needs of households are

TABLE 3. PLI by State and Stratum

State	Poverty line income (PLI) Per Capita	
	Urban	Rural
Johor	154	142
Kedah	143	144
Kelantan	139	126
Melaka	151	149
N. Sembilan	146	147
Pahang	150	144
P. Pinang	152	150
Perak	146	140
Perlis	136	142
Selangor	161	148
Terengganu	148	147
Sabah	174	170
Sarawak	171	164
W. Persekutuan	189	0

Source: Mohd Shukri Mohd Jusoh (2009)

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 Ravallion (1988). Items included in 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 percent households in the Household Expenditure Survey 2004/2005. Thus, the poverty measurement employed is based on the necessities needed by the household to fulfil the basic needs in terms of food and non-food requirement to ensure each household lead an active, healthy and proactive life (Mohd Sukri Mat Jusoh 2009).

The current PLI is a revised version from the previous exercise in 1977. In the 1977 version, the PLI was based on an average household of five for food and non-food items. The main difference between the current PLI and the one in 1977 is that there is no difference between states and area (rural and urban) in the latter. In addition, size, gender and age of household are not taken into account in constructing the PLI. Another major difference is the definition of destitute or hardcore poor. In the current PLI, destitute is defined as households that are unable to fulfil even their food requirement, whereas in the 1977 method, households that are unable to gain income of even half of PLI was considered as destitute.

EMPIRICAL STUDIES ON POVERTY MEASUREMENT IN MALAYSIA

Various studies had been conducted in Malaysia mainly using the monetary approach. Among the earliest studies undertaken was by Ungku Aziz (1964) who

TABLE 4. Determination of PLI 2007

No.	Items
1.	FOOD ITEMS
1.	Based on Recommended Daily Allowances (RDA) by Technical Working Group on Food.
2.	Necessity of household based on demographic factors such as age, gender and Basal Metabolic Rate (BMR).
2.	NON-FOOD ITEMS
1.	Based on World Bank's Living Standard Measurement
2.	Based on lowest 20percent group of Household Expenditure Survey 2004/05
3.	Consideration of prices at different states and stratum
4.	Categories of goods:
	a. clothing and footwear
	b. rent, energy
	c. utensils
	d. transportation and communication
	e. other goods and services

Source: Mohd Shukri Mohd Jusoh (2009)

introduced three socioeconomic measures of poverty in his study on poverty and rural development, namely nutrition, mortality rates and the *sarong index*. Firstly the relationship of poverty with low level nutrition was highlighted. He pointed out that the level of poverty is negatively correlated with the level of animal protein as protein intake is positively correlated with income. Therefore, an increase in poverty will be associated with a decrease in the protein intake and vice versa. Secondly, emphasising the relationship of poverty and mortality, Ungku Aziz suggested that a reduction in poverty is shown by the increase in life expectancy and decrease in infant mortality. Thirdly, the number of *sarong* divided by the number of households above the age of one known as *sarong index* was used to reflect the severity of poverty. Figures below one indicate a condition of extremely poor, whereas wealthy dwellers such as landlords and government employees have rates of 7-15 sarongs. The index was used primarily to measure whether there was an increase or decrease in poverty. However, due to its susceptibility to variations in fashion, the *sarong index* was deduced to be unpractical and was consequently abandoned.

Other studies such as Anand (1977) and Shireen (1998) developed poverty profiles in their studies. Both studies found that the percentage distribution of poverty among the values of each demographic variable locate concentrations of poverty. Furthermore, groups with high incidence of poverty indicate high-risk group of poverty. Anand (1983), Ishak Saari (1997) and Jamilah Ariffin (1997) adopted head-count ratio and revealed that poverty in Malaysia is more prevalent in rural areas. In another study, Mohd Yusof (1994) highlighted that poverty

incidence in urban areas is different from rural areas as urban poverty is associated with factors such as cost of living. Ragayah (2002; 2004) mentioned that poor urban households are more vulnerable to economic shocks compared to rural poor households. In his study applying distributive-sensitive poverty indices, Roslan (2004) concluded that all measurements used such as poverty-income gap index, Sen index and FGT index showed that there is evidence of poverty reduction, consistent with the government published figures. Employing Malaysian Family Life Survey (MFLS), Roslan used the cash and non-cash income to proxy income received by households.

More recent studies by Mohd Taib (2002) and Mohd Fauzi (2009) used social exclusion approach to study various patterns and behaviour of the poor. While Mohd Taib concentrated on the urban poor, Mohd Fauzi focused his study on Malaysian natives (Orang Asli). He developed human poverty index from the context of Malaysian natives to study the affect of marginalisation or social exclusion on the quality of life amongst the natives in the state of Perak. He concluded that there is a positive correlation between poverty and marginalisation. The more natives are marginalised, the poorer are their conditions. Poverty was proxied by the multidimensional natured index taking into account different dimensions such as education level, healthcare, quality of dwelling etc. Specific dimensions that contributed to the high poverty incidence of natives such as social and economic exclusion such as education facilities, healthcare and infrastructure were highlighted. In other words, Mohd Fauzi acknowledged the importance of studying poverty using multidimensional approach from the perspective of natives. However, such studies are scarce in Malaysia. Therefore, a multidimensional method is deemed necessary in understanding poverty in Malaysia.

POVERTY FROM A MULTIDIMENSIONAL PERSPECTIVE

Despite being the most common method of measuring poverty in Malaysia, there are some drawbacks in the income approach. Firstly, it is not easy to determine the needs of each individual as the needs of individuals differ. Secondly, needs of different genders are different and the exact difference in metabiological rate between them is not easily determined. Thirdly, non-monetary items, which reflect the quality of life, are not included such as size, type and ownership of house, education level etc. Fourthly, it can be argued how economic factors such as inflation and price changes are incorporated in the determination of household necessities. Due to this reasons, policy makers and researchers in developed nations have opted for other approaches such as capability, social exclusion and PPA approaches, which are multidimensional in nature that includes non-monetary indicators. Nolan and

Whelan (2009) highlighted that non-monetary indicators together with monetary or financial data would be able to improve the measurement and understanding of poverty especially in rich countries.

Realising the importance of recognising the multidimensionality nature of poverty, United Nation Development Program (UNDP), adopted concepts such as deprivation and capability pioneered by Sen (1977) by devising the human poverty index (HPI). The HPI measured poverty from three dimensions namely, the mortality rate (short life), knowledge and the overall standard of living (access to private and public resources). Improving on the works of Sen, Alkire and Santos (2010) introduced the Multidimensional Poverty Index (MPI) using ten indicators, which corresponded to the three dimensions in the HPI. One major advantage of using index such as HPI and MPI is that it facilitates authorities to determine policies according to priorities as shown by the dimensions. Policy makers would be able to draw specific steps according to the various dimensions that contribute to the incidence of poverty in a particular society. The MPI in particular could be used to formulate policies that could address deprivations faced by the poor. Due to this reason, it is imperative for a more holistic method to be adopted in Malaysia (Figure 1) using index.

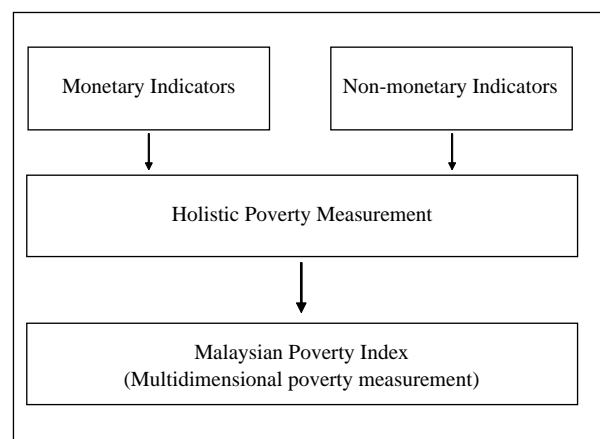


FIGURE 1. Multidimensional Poverty Measurement

This paper proposes to use the index concept, which is a method used to measure magnitude of change over time or place or individuals. By using this method, comparisons can be made with greater ease. For instance, the Human Development Index (HDI) developed by United Nations (UN) is able to compare the level of human development from one country to another. For instance, the Human Development Index (HDI) developed by United Nations (UN) is able to compare the level of human development from one country to another. Specifically, HDI looks at the level of development in seven categories such as trade structure, gender empowerment and unemployment. Thus, index is a useful tool to measure changes according to time. In Malaysia, Economic Development Index

(EDI) and Malaysian Quality of Life Index (MQLI) are used to measure the effectiveness of the development policies of the country. For example, EDI is used to measure economic achievements from the perspective of economic development indicators. On the other hand, MQLI compares socio-economic achievements in areas such as health, education and entertainment.

TABLE 5. Multidimensional Poverty Dimensions

No.	Dimension	Description
1.	Health	Child mortality Nutrition
2.	Education	Years of schooling Child enrolment
3.	Standard of living	Electricity Drinking water Sanitation Flooring Cooking fuel Assets

Source: Alkire & Santos (2010)

The proposed index would be based on the Quality of Life Index (QLI) adopted by Mohd Fauzi (2009) on Malaysian natives using HPI, which was developed by UNDP based on the works of Sen (1977), and the recently introduced MPI developed by Alkire & Santos (2010). The HPI measured poverty from three dimensions namely, the mortality rate (short life), knowledge and the overall standard of living (access to private and public resources). The mortality rate was proxied by the percentage of people expected to die before the age of 40 years (60 years for highly developed nations). Meanwhile, knowledge was represented by the percentage of adults in the country to be illiterate. The combination of access to health services, access to safe water and the percentage of malnourished children under five represented the overall standard of living. One major advantage of the HPI is that it facilitates authorities to determine policies according to priorities as shown by the dimensions. On the other hand, MPI has three dimensions, namely health, education and standard of living using ten indicators as explained by Table 5.

It is obvious that MPI has been extended from the HPI with the addition of new variables although the dimensions are quite similar. The main advantage of the MPI is that the variables included would enhance the monitoring of millennium developments goals (MDGs) set by United Nations and World Bank. The MDG provides data and statistics, which are presented annually to the relevant bodies as mentioned above and used to improvised efforts to address core deprivations. Another advantage is that the MPI consists of the percentage of poor (head count ratio) and the proportion of weighted

indicators in which the average multidimensional-poor persons giving depth and robustness to the analysis and interpretation of the findings.

The Malaysian Human Poverty Index (MHPI) would be formulated to suit to the local conditions incorporating the methods adopted by Mohd Fauzi (2009) and Alkire & Foster (2010). The formula for MHPI is as below. Each component represent different monetary and non-monetary variables such health, education and standard of living.

$$HP1w = \left\{ \frac{W1Z1 + W2Z2 + \dots + WnZn}{W1+W2+W3+\dots+Wn} \right\} \times 100\%$$

where Z1, Z2,...Zn – dimensions of wellbeing
W1, W2..Wn – weightage

CONCLUSION

The study is expected to enhance the understanding of poverty measurement in Malaysia as the multidimensional poverty measurement method is envisaged to suit the current rapid changes of the Malaysian economy. The proposed measurement method would be able to capture a more realistic poverty group. The identification of this poverty group would enable the relevant authorities to draw more appropriate and effective distributive methods and programmes that would be able to reduce the incidence of poverty in the country. This could be achieved as the proposed poverty measurement method would be able to address the multidimensional factors that prevail in Malaysia. The introduction of the proposed index would give alternatives in identifying the poverty group to policy makers from a different perspective. Using index as a method to measure poverty, the MPI is envisaged to reflect the multi-dimensional phenomenon of poverty in a more holistic way. Thus, a study to develop this proposed index is deemed necessary and should be undertaken with immediate effect to address the issues highlighted in this article with regard poverty measurement.

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