



Poverty measurement revisited from a multidimensional perspective among Universiti Sains Malaysia's B40 poor students

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Abstract

Poverty has been dominantly an economic concept and dealt with income or expenditure in Malaysia. In many parts of the world, widespread support surface for the application of a multidimensional approach to poverty. Yet, in practice the vast majority of empirical work on poverty uses a unidimensional yardstick to judge a person's well-being, usually expenditure or income *per capita*. While economic well-being, capability, political, and civic/cultural inclusion are integral parts of a multidimensional concept of poverty, a proper operationalization as well as comprehensive conceptualization of poverty based on multidimensional perspective is still lacking in Malaysia. With the introduction of the Multidimensional Poverty Index (MPI) this paper aims at bridging the gap between development and national policy from a multidimensional perspective. As a review paper, this study intends develop a coherent framework for measuring multidimensional poverty index in a smaller scale among the poor B40 Universiti Sains Malaysia (USM) students. Hence, by understanding the root causes of poverty as well as applying into an academic environment, the study will be able to bridge the gap between student's academic performance with their quality of life from three major components; education, health and standard of living. The methodology of this paper is based solely on document research of secondary data. The findings of this study are envisaged to ascertain to what extent multidimensional poverty index is valid vis-a-vis the unidimensional measurement approach in the near future for a bigger scale research, both in the state of Penang and other states in Malaysia.

Keywords: B40 students, Multidimensional Poverty Index, poverty, quality of life, unidimensional, Universiti Sains Malaysia students

Introduction

The concept of poverty has expanded significantly since the last half of the twentieth century till the new millennium. Poverty is documented to be a dynamic, complex phenomenon involving concepts such as vulnerability and powerlessness only in the past two centuries, since the 1800s (Sachs, 2005). Having said that however, the crucial puzzle for understanding today's poverty vis-à-vis of the past is of its vast inequalities among different regions of the world, which had grown at different rates during the period of modern economic growth,

unlike in the past where every region in the world shared similar growth patterns and poverty rates (Keynes, 1931; Sachs, 2005). According to the extensive literature on poverty, the way in which poverty is conceptualised depends on who asks the question, how it is understood and who responds to it. The current approaches to poverty not only have focused solely on issues of income and consumption, but also on the newer unconventional approaches on the multiple sources of deprivation that poor households experience and which hamper their efforts to obtain higher levels of wellbeing (Satterthwaite, 1997; Deepa et al., 2000; Rakodi & Lloyd-Jones, 2002; Mohd Hudzairi et al., 2018). According to Yaacob (2009), these deprivations are linked to ways as an encompassing subject, in which poverty is not just viewed as people being poor in the economic sense or material perspective, but it should also be viewed as people being in a state of suppression, powerlessness, having low self-esteem, lacking motivation, being fatalistic and having a feeling of defeat. Hence, these states become a multifaceted trait that is the multidimensional poverty phenomenon.

Poverty presently has become not only an intricate problem but a multidimensional phenomenon as well. Since the seminal work of Sen (1979, 1985, 1987), it is common to assert poverty as a multidimensional phenomenon, a proposition that most economists accept in theory; yet in *practice*, the vast majority of empirical *work* on *poverty* uses a unidimensional (income based) yardstick to measure poverty and wellbeing. Jasmine (2007) in her study affirms that urban poverty is more multidimensional vis-a-vis rural poverty. Why is this so? The urban poor families who are at an unfavourable position because of their income levels, not only due to the lack of it but because of its inequality. Besides, their issues are have also amalgamated with other crucial factors that go many a times disregarded and unaddressed (Master, 2008). In line with that contention, democracy, culture, human rights, gender rights, education, health care and housing are all imperative to the lives of poor people (Sulochana, 2007).

Most research on causes of poverty including that in Malaysia thus far has focussed primarily on material factors (Wratten, 1995; Masika et al., 1997; Ramasamy, 2007; Pramanik et al., 2009). These material factors can be divided into two aspects: firstly, on income/expenditure based factors and secondly on non-income factors, namely education, health, employment and main public amenities (water, electricity, transportation and communication technology).

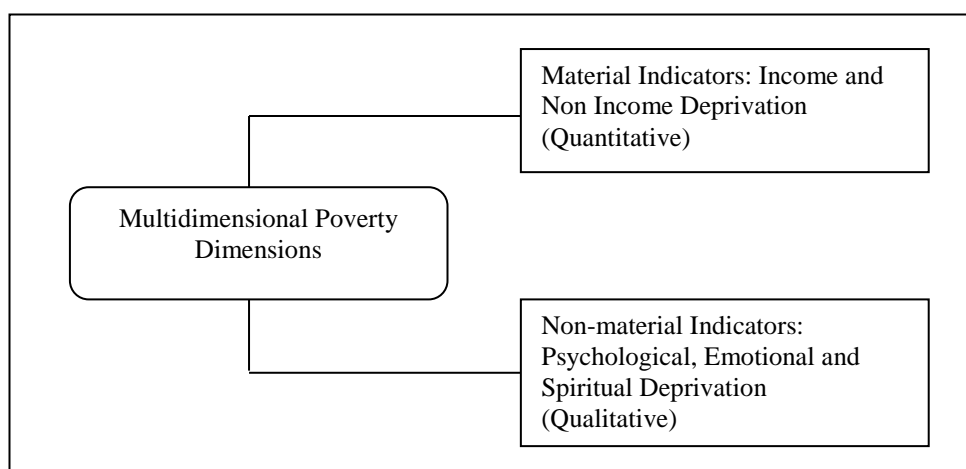
However, non-material aspects of poverty, which is based on human attributes; that is emotional and psychological traits of the poor, needs to be examined as well (Pramanik et al., 2009; Sulochana, 2007). Therefore, this study would like to address this assertion from some of the key theoretical perspectives of both material and non-material perspectives of poverty. Chamber's (1989; 1992) and Sen's (1987; 1997) have also argued likewise; that the most accepted explanation of poverty is provided by social scientists who attempt to combine both material and non-material dimensions of poverty. It proposes that poverty is a product not just of material conditions, but also of a set of intertwining factors, including physical weakness, social isolation, fatalistic behaviour, vulnerability and powerlessness (Rakodi, 1995; Deepa et al., 2000; Shahdadat, 2005). Therefore, by combining both material and non-material determinants of poverty, the study would make an attempt to scrutinise the issue of urban poverty from a more comprehensive or holistic perspective, that is multidimensional stance (Sharifah & Khoo, 2016).

The need for Multidimensional Poverty Index to measure poverty

Having seen all these poverty definitions from various perspectives, the multi-dimensional definition best suits this research on poverty. This is because the multidimensional definition provides the space to explore the interplay of various dimensions. Moreover, Alkire and Santos (2010) stated that MPI has several advantages to complement the national income poverty measure of PLI, that is to focus on human dimensions to augment capability and mobilisation of human potential, examine the effectiveness of poverty intervention and improve targeting, identification and, focus of priority groups as well as locality and design of development programmes. Hence, it indicates various aspects in which they are deprived and help to reveal the interconnections among deprivations. Moreover, MPI enables policy makers to target resources and design policies more effectively and to ameliorate the poverty problem by creating people-centred indicators to measure the depth deprivation across countries.

If multidimensional poverty features are to be adopted in Malaysia, the conceptualisation of multidimensionality poverty from past literature is still ambiguous and subjective. Therefore, the study would make an attempt to refine further the multidimensionality phenomenon of poverty so that it will be more measurable and objective. Hence, the operational definition of poverty adopted in this study is multidimensional poverty which comprises both material and non-material dimensions.

Poverty founded on the material dimension (tangible in nature) is divided into two types; income or consumption based poverty and non-income based poverty. The former denotes exclusively monetary and economic perspectives whereas the latter relates to education facility, employment opportunity, health care, security, transportation, information communication technology, energy, housing and any other tangible factors (Parthiban, 2013). On the other hand, poverty founded on the non-material dimension (intangible in nature) is based on human centred features which includes the poor's state of deprivation, suppression, powerlessness, low self-esteem and motivation, fatalistic attitude, feeling of defeat and humiliation, ignorance/inaccessibilities to legal and political rights as well as vulnerability and isolation (Parthiban, 2013). The multidimensional poverty concept which has been adopted and adapted in the Malaysian context can be illustrated based on Figure 1 below:



Source: Parthiban, 2013

Figure 1. Proposed Multidimensional Poverty Measurement for Malaysia

While poverty disregards objective definition because of its multi-dimensional nature (Osinubi, 2003) there is a crucial question remains unanswered; why is this so? Although Sen (1979; 1985; 1987) asserts poverty is a multi-dimensional phenomenon, in practice, most of the empirical work on poverty still uses one dimensional yardstick to judge a person's well-being, usually expenditures or income per capita equivalent.

The multidimensional nature of poverty is not reflected in the current narrow definition of poverty, hence resulting in a lack of understanding of poverty issues. Fusco (2003) argues that in defining poverty, a distinction should be made between the traditional unidimensional approach and more recent multidimensional ones. While the traditional approach refers only to one variable such as income or consumption, multidimensional ones, such as Sen's capability theory or studies have extended the number of dimensions or variables that determine poverty. Haughton and Khandker (2005) also succinctly explain the works of Sen which encapsulates the multidimensional nature of poverty:

Apart from income, poverty arises when people lack key capabilities, and so has inadequate income or education, or poor health, or insecurity, or low self-confidence, or a sense of powerlessness, or the absence of rights such as freedom of speech.(p. 2-3)

Deepa et al. (1999) based on an in-depth research of 'Voices of the poor', propounds evidence that suggests that the current poverty concept is a multidimensional social phenomenon. This is so because definitions of poverty and its causes vary by gender, age, culture, and other social and economic contexts. For example, in both rural and urban Ghana, men associate poverty with a lack of material assets whereas for women, poverty is defined as food insecurity. Generational differences emerge as well. Younger men in Ghana consider the ability to generate income as the most important asset whereas older men cite the status connected to a traditional agricultural lifestyle as the most important.

In Madagascar for example, as noted by Deepa et al. (1999), peasants associated poverty to drought; the poor in the city to soaring prices and fewer employment prospects; the rich to worsening in domestic and international terms of trade, disregard of Malagasay traditions and norms, lack of enthusiasm among certain classes and groups of people, efficient in education and absence of governance. Hence, the present definition of poverty does not result from the lack of one singular aspect but from many intertwining factors that huddle in poor people's experiences and meanings of poverty.

In addition to the preceding discussion on the multidimensionality of poverty, there is another fundamental feature that regards urban poverty as the quintessence of multidimensionalities when compared to rural poverty. This view is also shared by many recent scholars, namely Sulochana (2007) and Baker (2008). They asserted that unlike rural poverty, urban poverty is relatively multifaceted or multidimensional because in addressing urban poverty one not only takes into account deprivation of quantitative issues (relating to income, housing, health, employment and education) but also deprivation of qualitative aspects (such as suppression, powerlessness, having low self-esteem, lack of motivation and fatalism).

The need for Multidimensional Poverty Index in Malaysia

Many recent studies on poverty which are ascribed to Malaysia, though focuses on economic well-being, capability, and economic; political, multidimensional nature of poverty, a proper

operationalization of poverty measurement is still lacking. This study however, finds two main puzzling questions confront anyone interested in understanding the effective poverty measurement approach. First, in many parts of the world including Malaysia, widespread arguments surface for the application of a multidimensional approach to poverty. Yet in practice, the vast majority of empirical work on poverty uses the unidimensional yardstick to judge a person's well-being, usually expenditures or income *per capita* equivalent. Consequently, is Multidimensional Poverty Index (MPI) approach is more effective vis-à-vis the conventional income or consumption approach which is based on Poverty Line income? Second, since poverty by nature is multifaceted, it can be scrutinized from various dimensions from rural to urban poverty, ethnic poverty and intergenerational transmission of poverty and so forth. Having said that, there is an oversight of research as far as poor students are concerned. In fact, hardly any knowledge is available in Malaysia with regards to the multiple deprivations [except for only one study done among the UiTM students in the Shah Alam campus (Nadia et al., 2011) faced among the poor students at tertiary level, especially among the USM poor students. In USM, even though the poor students are being aided through various means by the university as well as the central government but poverty among them seems to be multifaceted and unalleviated. Currently, these students are identified as poor based on the conventional one-dimensional measurement approach. Hence, this study is deemed important and crucial as it could address the multiple deprivations faced by these students based on the multidimensional poverty index measurement approach. These findings are crucial as this one affliction called poverty brings in its train a multitude of miseries that could serve as impediments particularly towards their (USM students) academic performance and excellence.

Based on the discussion thus far, measuring deprivation or poverty has always been a challenging task for both economic theorists and policy makers. The standard norm has been to use the income component for these purposes. Even in the second half of the twentieth century, the poverty or welfare or human development or well-being as it is variously known, of a society was predominantly gauged in terms of average income or wealth. Similarly, individuals or households in many countries are still identified as destitute if they fail to acquire income above a subsistence threshold. This led to the measurement and analysis of both welfare and poverty being based only on a single component or attribute (also known as unidimension/one-dimension) of well-being. However, the proponents of the basic needs approach (Streeten, 1981) and later the capability approach (Sen, 1985) have shown that the perception of poverty and deprivation go beyond income or wealth. The basic needs approach identifies an individual or a household as destitute if they fail to obtain the resources such as food, shelter, health care and education needed to sustain long term physical well-being. The capability approach developed primarily by Amartya Sen, on the other hand, argues that well-being should be based on what individuals are capable of doing and being, and not merely on the commodity bundle that they own. These two approaches have their differences (Anand & Ravallion, 1993), but they are common in at least one aspect: both encourage the measurement of social welfare and poverty to be based on multiple components or attributes of well-being, such as education and health, instead of income alone.

As illustrated in the Eleventh Malaysia Plan (2015), since absolute poverty is no longer a serious issue for Malaysia, hardcore poverty has been eradicated and the incidence of ordinary poverty was at minimum level (0.6%) in 2014. Thus, with these progresses, 94% of household in Malaysia had access to clean/treated water and 99% had access to 24-hour electricity supply (Eleventh Malaysia Plan, 2015). The main factors of human development have always been addressed and given priority in Malaysia's socio-economic development.

The broad-based approach has been adopted to target and monitor poverty in Malaysia from 1970 to 1985. Subsequently, a target-specific approach was engaged for poverty targeting and poverty monitoring. In 2008, further progress was made to the centralised database (known as e-Kasih) for the poor households. This database has received international recognition and won the first prize of the United Nations Public Service Award (UNPSA) 2012 (ECOSOC Annual Ministerial Review, 2013).

Notwithstanding remarkable improvement made in poverty alleviation, Malaysia continues to have pockets of poverty. In this regard, the Multidimensional Poverty Index (MPI) will complement efforts to regulate poverty and identify development gaps for the formulation of a more inclusive development policy and intervention. Besides, since human beings and poverty by nature are multidimensional phenomena, solely depending on unidimensional research measurement will not be an effective approach to mitigate the poverty problem (Muhammad Yunus, 2007). In contrast, the MPI goes ahead of the traditional focus on income to reflect multiple deprivations that a poor person faces in relation to education, health and living standards. Malaysia is still at the early stages of employing MPI in planning and monitoring the nation's poverty. Incidentally, though Malaysia has embarked on the multidimensional poverty mechanism as an indicator to determine the poverty incidence, she is yet to formulate an MPI.

Malaysia's version of the MPI model which is adopted from the Alkire-Foster (AF) method, though inadequate by the availability of data, will influence the determination and selection of dimensions and indicators of poverty. At present, the main data source for the MPI is the Household Income/Basic Amenities Survey (HIS/BA), carried out by the Department of Statistics twice in every five years (ECOSOC Annual Ministerial Review, 2013).

At macro level the Malaysian government has been reviewing its policy towards increasing outreach and maximizing impact in line with the national goal of zero hard-core poor by the end of the 9th Malaysia Plan (2006-2010). Incidentally, in the 10th Malaysia Plan (2011-2015), the government focused on moving towards inclusive socio-economic development. In tandem with this practice, Malaysia has developed the national measurement of MPI (though an actual index is yet to be determined) that is appropriate for the socio-economic wellbeing and development framework of the nation. The use of the MPI will make sure that policy consideration will include vulnerability as well. The MPI will complement the PLI to measure and monitor poverty from multidimensional perspectives. The MPI reflects both the incidence of multidimensional deprivation (the number of people who suffer deprivations in multiple aspects of life at the same time within a given population), and its intensity (how many deprivations they experience at the same time). The model comprises of 3 dimensions with 10 indicators (refer Table 1 below). In this model, households deprived in at least one third of the weighted indicators are considered vulnerable to or at risk of becoming multidimensionally poor (11th Malaysia Plan (2015-2020), 2015).

Table 1. Composition of the MPI – dimensions and indicators

Dimensions of poverty	Indicator	Deprived living condition in the household
Health	Nutrition	An adult under 70 years of age or a child is undernourished.
	Child mortality	Any child has died in the family in the five-year period preceding the survey.
Education	Years of schooling	No household member aged 10 years or older has completed six years of schooling.

Standard of living	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class 8.
	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, round trip.
	Electricity	The household has no electricity.
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.

Source: Human Development Report (2018)

In the same vein at the micro level, if an empirical study is carried out in the near future, the study intends to make an attempt to understand the overall deprivation among USM B40 poor students (Engineering Campus in Nibong Tebal, Medical Campus in Kubang Krian and the Penang Campus) which may surpass the limitations of unidimensional poverty determinant. Hence, the study will focus on measuring the multiple deprivation level among these USM B40 poor students by using non-income approach, that is the MPI which has been adopted and adapted from the Oxford Poverty and Human Development Initiative (July 2010 OPHI) with few adjustments based on students perspective.

Incidentally, this paper development its aims by bridging the gap between development and national policy from multidimensional perspective by applying it in an academic environment, with B40 poor students of USM Penang as subject matter of the research. The study therefore will be able to bridge the gap between student's academic performance with their quality of life based on three major components - education, health and standard of living. Furthermore, as this is a review paper it is primarily based on a document research of secondary data. However, if an empirical research is carried out in the near future a primary data will be gleaned based on a quantitative method-questionnaire.

Conclusion

The multifaceted deprivations among the USM poor students will put them in the limelight especially among the stockholders to improve the students' quality of life. Consequently, the attention and participation given by these stack holders will assist students to achieve better performances especially after their poverty plight has been resolved or mitigated. Essentially, alleviation in poverty among these USM B40 poor students includes many strategies, aimed not just income improvement, but also improvement in non-monetary/income (education, health and standard of living) and non-material aspects (behavioural factors such as low self-esteem, fatalistic behaviour, empowerment and dependency syndrome). The aim has been to focus the discussion back squarely on the objective of poverty to formulate a proper poverty measurement which is based on multidimensional poverty index (MPI). Hitherto, from the forerunning discussion the MPI reflects on the number of deprivations the poor students experience at the same time. The study would consider the average level of deprivation, that is, if these students were deprived in any of the ten indicators. Yet one deprivation may not

represent as poverty. Moreover, by using a multidimensional yardstick, a hard core poor student may require to be deprived in all ten indicators. Incidentally, only when the deprived poor students are identified via a proper measurement, the necessary support as well help could be duly rendered. In this context, MPI will be virtually the most relevant as well as a holistic approach not only to capture the incidence of poverty among these poor USM students who experience multiple deprivation but the intensity of their deprivation as well vis-a-vis the conventional unidimensional measurement approach.

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