Is Poverty Multidimensional? A Comparison of Income and Asset Based Measures in Five Southern African Countries

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Is poverty multidimensional? A comparison of income and asset based measures in five Southern African countries.

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Abstract This paper contests the major emphasis placed on the multidimensional nature of poverty measurement. Instead, it argues that poverty pictures created by different measures and at different units of analysis tend to converge. This argument is derived from a comparison of poverty pictures created using income and asset-based measures at the national and household level in five South African Development Community countries. Although multidimensional measures have value in illuminating subtle differences, the findings indicate a single dimension of poverty that runs throughout all the measures and levels of analysis. However, despite the single poverty picture provided by different measures, the abandonment of these different measures is not supported. Multidimensional measures provide insight into particular elements of poverty that is useful and relevant to poverty interventions.

Keywords Poverty · Southern Africa · Measurement · Units of analysis · Dimensions

Recently there has been an increase in poverty awareness and interest in its existence in Western societies (Kakwani 1984). This interest, much of which was generated by pivotal papers by Sen (1976) and Townsend (1979), has changed the face of how poverty is conceptualised and defined. This in turn has had an impact on how poverty is measured, resulting in the emergence of alternatives to the traditionally accepted poverty measures (Tsui 2002). The general move has been away from the view of income as the sole measure of poverty in search of other indicators that provide a more well rounded and ultimately more accurate picture of the situation. Before the alternative indicators of poverty can be explored, it is necessary to understand the original poverty measure of income.

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Income is the traditional measure associated with poverty measurement. The rationale behind the use of income as a measure was based on the thinking that income provides money, which can be used to satisfy and fulfill basic human needs (Scott 2002). However, the assumption that there is a money market, which can supply all these basic needs, has been severely criticised (Tsui 2002). Another criticism of this measure is the assumption that each member of the household has access to a fair and proportional share of the income at the household level (DFID 2001).

As a result of the flaws in the use of income as the only poverty measure, researchers have attempted to build various, diverse indices that add to, or substitute for, income data. These attributes or dimensions can include: life expectancy, caloric intake, height and weight, formal education, literacy, employment, quality of housing, and access to services, literacy, health, provision of public goods, and income, to name a few. Evidence of the recent shift to incorporate other indicators can be seen in practice when comparing two World Bank *World Development Reports* on poverty. The 1990 report focuses on income poverty, whereas the 2000/2001 report *Attacking Poverty*, identifies four dimensions of poverty: income-poverty, health and education, vulnerability and voicelessness. This view makes poverty essentially a multidimensional phenomenon with income simply one indicator (Bourguigon 2002).

Currently, one of the only points of consensus in the theoretical field of poverty is the fact that a single definition of poverty is elusive and unattainable (UNESCAP 1999). Measurement relies on the operationalisation of a construct. Thus, this broad approach to measurement is a reflection of the inexact definition of the poverty construct. The breadth of such definitions is captured in the one used by the 1995 World Summit on Social Development in Copenhagen (United Nations 2000):

> Poverty has various manifestations, including lack of income and productive resources sufficient to ensure sustainable livelihoods; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; increased morbidity and mortality from illnesses; homelessness and inadequate housing; unsafe environments and social discrimination and exclusion. It is also characterised by a lack of participation in decision making and in civil, social and cultural life ... Absolute poverty is a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services.

From the above quote it can be seen that poverty is multidimensional and few economists would argue against this (Diaz 2003). The multidimensional approach to poverty is not new and has been addressed by authors such as Bourguignon, 1982 (as cited in Diaz 2003), Wagle (2005) and Duclos et al. (2006).

This major shift in the conceptualization and measurement of poverty is largely due to Sen's seminal work (1976), which introduced the concept of capabilities (e.g. education, good health and freedom). In this view, income remains important instrumentally, because to some extent it can buy these capabilities, but he argues that poverty should be measured in other dimensions that access capabilities more directly. Practical research that attempts to apply the capabilities approach include the UNDP's Human Development Index (UNDP 1994) as well as more general research that considers multiple dimensions of poverty simultaneously (Sahn et al. 1999; Duclos et al. 2001). Such measures that aim to assess the

fulfilment of basic needs and access to services are driven by development economists who see development, or a decrease in poverty, as sustained improvements in basic needs such as health and education and not simply income (Tsui 2002).

Support for the multidimensional measurement of poverty is abundant. The justification behind the measurement of more than one dimension of poverty is based on the idea that no matter how good the income indicator is, it is incomplete and such shortfalls lead to inaccurate estimations of poverty (Diaz 2003). Having said that, alternative dimensions such as health, educational attainment, social exclusion, and insecurity are often only weakly correlated with income or expenditure (Appleton and Song 1999; Sahn et al. 1999). Laderchi (1997) finds that links between income and the well-being indicators such as malnutrition, mortality and school enrolment' are difficult to identify and when identified are highly non-linear. Therefore, she makes the argument that income does not provide all the necessary information for a comprehensive picture of poverty. These poor correlations highlight the fact that measuring these additional dimensions enrichs and provides additional information to the poverty picture (Dercon 2005).

When choosing the measure, it is important to ensure a fit between the properties of a poverty index and policy objectives. The importance of poverty measure is summarised in the following quote: ''*the same scenario is judged differently by different poverty indices*'' (Shimeles and Thoenen 2005). This statement suggests that different indices create different pictures and thus the poverty picture seen can be highly dependent on the indicators chosen. In order to capture the full multidimensional picture of poverty an argument is made to keep the measurement approach as broad as possible (Laderchi 1997). Consequently the poverty measurement field is littered with various measures each assessing a particular dimension of poverty.

One dimension of poverty that has gained in popularity and is particularly relevant to this study is that of asset-based measures. In-keeping with the view of the multidimensional poverty it is accepted that there is unlikely to be a single asset-based indicator that would be any more successful than income. However, the strength of asset-based measures lies in the construction of indices that capture the relative importance of each asset in the total poverty picture (Shimeles and Thoenen 2005). The weighting of each asset towards the index total is meant to reflect the strength of the relationship between the asset and a 'wealth factor' as proposed by Sahn and Stifel (2000). Each theory or definition of poverty differs slightly as to what it sees as contributing to poverty and hence utilises a unique combination of indicators in its measures.

With the extension of poverty measures into different dimensions poverty assessments no longer have to rely on income which is mainly assessed at the household level and can make use of other dimensions that are best measured at the individual or national level. Hence the measurement of poverty has moved into different levels of analysis.

Poverty measurement is defined as ''the quantitative assessment of the level and depth of poverty of individuals or in aggregate, for a group or in a region, country or across the world'' (Dercon 2005, p.1). One aspect that stands out in this definition is the existence of multiple units at which poverty is measured. The selection of the appropriate indicator or index depends upon not only the dimension of poverty one is trying to assess as discussed earlier, but also the unit of analysis of poverty, for example household or individuals. The importance of the unit of analysis can be seen in Bhorat's statement (1999, p.157) that ''the unit of analysis...imparts crucial information about the nature of poverty''. Bhorat (1999) identifies the individual and household levels of analysis as particularly important predictors of poverty and believes that they should be coupled when trying to understand low earnings in a society.

Empirical support for the importance of units of analysis can be seen in work by Iceland (2003) on the empirical evaluation of the effect of units of analysis on poverty levels. This study compared poverty levels across four units of analysis: the official family, the cohabiting couple, the household, and a level called the family/couple/household (FCH) unit. The findings indicate that poverty levels are lower when more inclusive units of analysis are used. Iceland found that when using the National Academy of Sciences official measurement for poverty the family rate of poverty was 15.4%, the FCH rate was 14.7%, cohabitating couples rate was 14.9% and the household rate was 14%. It is proposed that differences in poverty levels across these units occur as a result of income pooling among family and economies of scale that exist in households. Thus, it can be seen that the level at which one analyses poverty can have an effect on the poverty picture created.

Bhorat (1999) also highlights the importance of the unit of analysis in measurement. In this study, differences in poverty levels between the household and the individual in South Africa were explored. It was found that the transfer of individual earnings and poverty information to the household level could significantly change the description of poverty. Three groups that suffer a high degree of indigence (the unemployed, farm workers and domestic workers) were examined in relation to poverty and income. At the individual level, domestic workers were found to be poorer than farm workers with nearly 40% of all domestic workers earning less than R293 a month. However, at the household level this trend was reversed and domestic workers were found to live in wealthier households than farm workers. Thus, careful attention as to the unit of analysis used in studies is very important.

In the literature there are a multitude of studies that explore poverty from either a multidimensional or income-based approach with the result being that poverty is seen as a complex construct with no agreement. There is very little literature that compares poverty pictures created by different measures.

One study that does explore similarities across measures found a commonality between the measures. The study by Mattes et al. (2003) compares five measures and the poverty rankings across seven countries on each measure. South Africa and Botswana were the countries that were ranked as number one across all the measures. On one of the indices Lesotho was ranked as the most impoverished but on the other four Malawi obtained this ranking. When the correlations between the ranks are explored there is a high correlation between the Lived Poverty Index and the other measures indicating that the big picture of poverty created by each of these measures is fairly similar.

The aim of this paper is to explore poverty pictures created by different measures and across different units of analysis. This exploration will focus on whether pictures created at different levels of analysis and with different measures tell a similar story. This comparison will be made in terms of relative rankings of poverty provided by each picture. Five South African Development Community countries are used in the comparison.

1 Methods

Secondary analysis was conducted on data archived at the Surveys, Analyses, Modelling and Mapping unit of the Human Sciences Research Council in Pretoria. The data were originally collected in 2000/2001 by the Public Opinion Analysis Programme as part of an international study to identify the link between democratic governance and sustainable

human development. Consequently the data focuses on social, economic and political observations. Data in this study were collected from five SADC countries: Lesotho (n = 740), Namibia (n = 704), South Africa (n = 2609), Swaziland (n = 703) and Zambia (n = 1205). Multi-stage, stratified area cluster probability sampling was used to obtain a representative sample of all citizens of voting age (aged 18 and above) in each of the five countries.

1.1 Measures

The measurement instrument was a questionnaire originally used in EPOP studies in South Africa that had been slightly modified for each country. An example of such a modification was that the questions relating to democracies had to be changed for Swaziland, as Swaziland is a monarchy. Demographic data as well as two main poverty measures (which manifest at both an individual as well as a household or collective level in society) were taken out of the original questionnaire and used for secondary analysis in this study:

1.1.1 Income

Income data were collected at both the individual and household level. Income was collected in different currencies and in pre-determined categorical ranges in each country. In order to overcome this problem, household incomes were recoded into the following categories: no income, low-income level, middle-income level and highest income level. This was done separately for each country by placing all households with no income into the no income group, thus the size of this group in each country is not always one quarter of the total sample size. The remainder of the sample was then allocated proportionally into the remaining three levels with the lowest third of the remaining group being allocated to the low-income level and so on.

1.1.2 Asset-based measures

The other poverty measure used from the questionnaire collected data at the household level. The Living Standard Measure (LSM) was developed by the South African Advertising Research Foundation to measure poverty in terms of purchasing ability, using criteria such as ownership of appliances, degree of urbanisation of households and access to services (South African Advertising Research Foundation 2001). The aim of the measure is to divide the population into effectively 'wealth' or 'poverty' groupings without the use of income data. The 1995 version of the LSM was used in the questionnaires and consisted of the following twenty elements in the form of yes/no responses to ownership or use of the following: flush toilet; polisher/vacuum cleaner; non-supermarket shopper (personal); fridge/freezer; at least one car in household; financial services; electricity; insurance policy; hifi/music centre; telephone in home; dishwashing liquid; household supermarket shopper; hot running water; credit facility; TV set; microwave oven; washing machine; rural dweller; hut dweller; and domestic worker.

In order to obtain a score each variable carried a different weight with elements seen to contribute to wealth carrying a positive weighting (Haupt 2006). The total scores were calculated by adding the weighted scores for each element together with a constant to obtain a total. The weightings and constants used were uniform across the countries. The

scoring system of the LSM consisted of nine ordinal categories. Once a score was obtained, the corresponding level of the LSM was assigned to the household. The categories in ascending status were as follows: traditional have nots; self-centred non-earners; compound and hostel dwellers; urbanised singles; the young aspirers; emerging market; established affluents; progressive affluents; super group. The LSM is a fairly robust wealth indicator without the use of income (Haupt 2002).

In order to make the poverty picture comparisons more robust, data collected at a national level was used to provide the international comparisons. This type of data is routinely collected by large organisations such as the World Bank and UNICEF. Below are a list of the measures and definitions used:

1.1.3 International poverty line

The international poverty line is a measure of the depth of poverty based on the magnitude of the gap between poverty levels of the poor relative to the poverty line.

1.1.4 Mortality rate

Mortality rate is a measure that reflects the social nature of poverty at a national level.

1.1.5 Human development index (HDI)

The HDI is a composite index created by the United Nations Development Programme with the aim being to measure and rank the extent of human development in a country. This measurement is made along three basic dimensions of human development: a long and healthy life, as measured by life expectancy at birth; knowledge, as measured by the adult literacy rate and the combined gross enrolment ratio for primary, secondary and tertiary schools; and a decent standard of living, as measured by GDP (United Nations Development Programme 2005).

1.2 Analysis

Basic descriptive statistics were run on the poverty-related data at the household level and supplemented with data at an international level. As the measures are not in the same units, the comparisons across the measures and the overall general poverty picture are made at the level of relative rankings of each country. Interesting patterns of poverty obtained from the descriptive statistics and comparisons are explored.

2 Results and discussion

2.1 National level analysis

With this measure Swaziland has the lowest percentage of the population living on $1 a day. Lesotho and Namibia are in a similar position to each other with Zambia significantly poorer on this rating in comparison with the other four countries. This measure identifies

nearly two thirds of Zambia's population as poor, with only just over 10% living on more than $2 a day. Mali's data is provided for comparison as Mali is the poorest country identified globally when this scale is used Table 1.

Disease is not measured in units traditionally associated with economics however, it reflects health infrastructure and has great social ramifications in a country. Development is associated with a decrease in general and infant mortality and an increase in life expectancy, as explored below. Namibia and South Africa have similar mortality rates, followed by Lesotho with the infant mortality rate very similar in Swaziland and Zambia (Table 2). The true magnitude of the figures can be seen when viewed from a global perspective with Zambia having an infant mortality rate more than 34-fold that of Sweden. The agreement and similar patterns between the two mortality rates is logical as they are both reflective of child health care infrastructure and treatment.

The HDI rank ordering of the five SADC countries (Table 3) is similar to that seen with the mortality rankings. South Africa and Namibia have similar HDI values and are only separated by four countries. With this measure, the picture of poverty in Swaziland is similar to Lesotho separated by only one country. Zambia is the country that performs the worst on this index with a position of 166 out of 177.

Table 1 Poverty in each of the five SADC countries according to the international poverty line (UNDP 2005)

	Survey year	Population below $1 a day (%) (relative ranking in comparison with other SADC countries)	Population below $2 a day (%) (relative ranking in comparison with other SADC countries)
South Africa	2000	10.7 (2)	34.1 (2)
Namibia	1993	34.9 (3)	55.8 (3)
Swaziland	1994	8.0 (1)	22.5 (1)
Lesotho	1995	36.4 (4)	56.1 (4)
Zambia	1998	63.7 (5)	87.4 (5)
Mali	1990–2003	72.3	90.6

Table 2 Mortality rate data ranked from worst to best (UNICEF 2005)

	Under-5 mortality rate (relative ranking in comparison with other SADC countries)	Infant (Under-1) mortality rate (relative ranking in comparison with other SADC countries)
Sweden	3	3
South Africa	66 (1)	53 (2)
Namibia	68 (2)	45 (1)
Lesotho	84 (3)	63 (3)
Swaziland	153 (4)	105 (5)
Zambia	182 (5)	102 (4)
Sierra Leone	284	166

Table 3 Rank data (in brackets) related to the HDI from highest to lowest (UNDP 2005)

	HDI rank	HDI value	Life expectancy at birth (years)	Adult literacy rate (%)	Combined gross enrolment ratio for primary, secondary and tertiary schools (%)	GDP per capita (PPP US$)
Norway	1	0.963	79.4	99.9	101	37670
South Africa	120	0.658(1)	48.4 (1)	82.4 (2)	78 (1)	10346 (1)
Namibia	125	0.627(2)	48.3 (2)	85(1)	71 (2)	6180 (2)
Swaziland	147	0.498(3)	32.5 (5)	79.2 (4)	60 (4)	4726 (3)
Lesotho	149	0.497(4)	36.3 (4)	81.4 (3)	66 (3)	2561 (4)
Zambia	166	0.394(5)	37.5 (3)	67.9 (5)	48 (5)	877 (5)
Niger	177	0.281	44.4	14.4	21	835

The HDI is an interesting national indicator as it is multidimensional with both social and economic indicators used in its construction. The effect of multiple dimensions can be clearly seen with this indicator as high levels on certain indicators are not strong enough on their own to affect the overall outcome of the measure and it is the cumulative effect that is witnessed in the final HDI result. An example of this is the interesting observation that the HDI ranking for Swaziland and Lesotho only differs by one yet the GDP for Swaziland is nearly double that of Lesotho. If GDP alone had been used as the indicator of poverty then Lesotho would have been seen as substantially poorer than Swaziland. This drastic difference in GDPs is lessened when combining multiple dimensions as the life expectancy, adult literacy and enrolment ratio is higher in Lesotho than in Swaziland. Obviously the weighting given to each dimension will affect the ultimate outcome of the combined picture. This is the factor that separates measures.

At the national level it can be seen that the measures generally provide the same picture as to the state of poverty in each country relative to the other countries. The major exception to this observation is the percentage of the population below $1 a day in Swaziland. Other than this exception, there is a general trend of South Africa and Namibia as the 'wealthiest' countries with Zambia the 'poorest'. The measures that provide this picture differ but the general pictures are consistent across the measures.

2.2 Household level analysis

Poverty-related data captured in this survey was collected at the household level in the form of income and LSM scores (Table 4).

In terms of median incomes Namibia and South Africa are the wealthiest countries, with households in Namibia having a higher median income (US$ 218–329) than those in South Africa (US$ 164–218). This observation is a reversal of the two countries in the other economically based measure used in this study discussed above, when South Africa was found to have a higher GDP than Namibia. With this measure, Lesotho is poorer than Swaziland. It is difficult to compare poverty between Lesotho and Zambia using the median income as the intervals overlap but the modal income indicates that the majority of the population earns more in Zambia as the modal group in Lesotho has no income. A

Table 4 Summary descriptive statistics for household monthly income

	Median ($)	Mode ($)	Mean LSM
South Africa	164–218	55–76	5.37
Namibia	218–329	No income	5.15
Swaziland	98–131	0–67	3.26
Lesotho	32–55	No income	2.15
Zambia	11–62	11–62	2.55

Note: Median worked out of the group who are actually earning (i.e. excludes: no income group, unsure etc)

suggestion as to the reason for such a high percentage of the population with no income could come from the fact that many males in Lesotho work as migrant labour in South Africa and this income may not be included in the household figures.

However, when the mean and mode are compared an interesting phenomenon is seen in Nambia with it being the country with the highest median income yet at the same time having the largest segment of its population not earning an income. This indicates that income is particularly negatively skewed in the country with the majority not earning anything but with a wide spread of income thus creating the highest median income of the five SADC countries in the survey. Generally though, this first measure at the household level mirrors the poverty trends seen at the national level.

When the poverty situation in each country is explored using the LSM the picture is again divided with two countries identified as notably wealthier than the rest (Fig. 1). This split in living standards among the five countries was also visible with household income. In the picture created by the LSM, South Africa and Namibia are the wealthiest countries

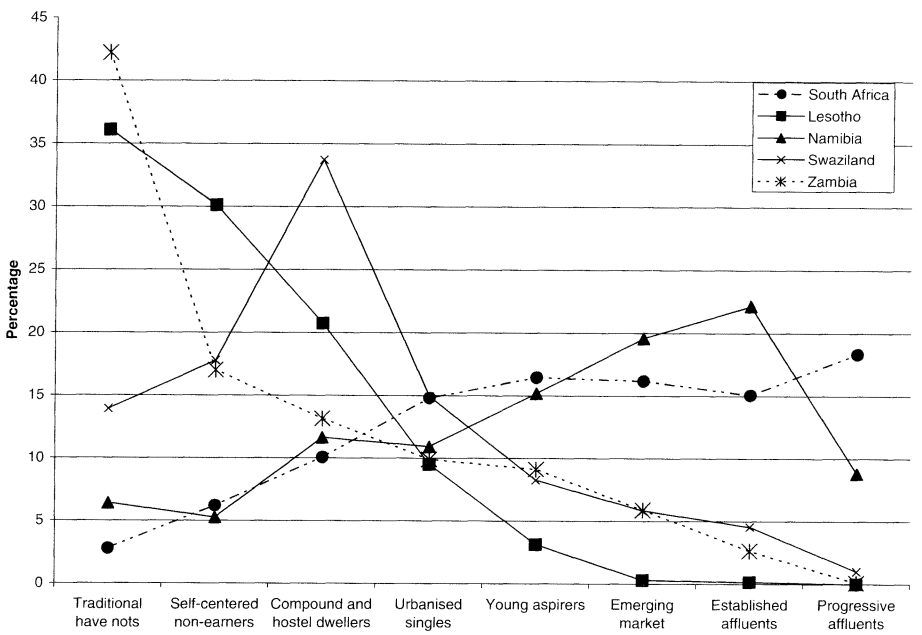

Fig. 1 Proportion of population in each LSM level across the countries

with a progressive increase in the proportions of the sample in the upper living standard levels. This is reflected in Fig. 1 with positive gradient across the increasing LSM levels. In the remaining three countries, large proportions of the sample are in the lower living standards and only a very small proportion in the upper living standard levels. Once again Lesotho appears to be the country that fares the worst. In particular, none of the population falls in any LSM category above ''emerging market''. This is verified when the mean LSM levels for each country are explored. With this measure Lesotho (mean LSM = 2.15) is identified as being poorer than Zambia (mean LSM = 2.55).

The ordering of the split mirrors the rankings of the HDI at the national level. The split between the countries, according to where the largest difference in HDI ranks occurs, creates the same two groups as those seen with the LSM. This picture is mirrored again at the national level with Lesotho and Zambia the lowest ranked of the five countries according for GDP. The agreement between GDP and income is the least surprising of the agreements at this level, as they are both economically based measures. However, the agreement between income and HDI is particularly interesting as it shows a correlation between income at the household level and social indicators at the national level (in the form of HDI). Despite the thinking that different measures at different levels would place emphasis on different dimensions and thus create different rankings or differences in the poverty picture from measure to measure, it appears that the general picture across measures and units of analysis in this case is fairly similar.

The picture created by the LSM provides a more detailed and multidimensional picture as it encompasses more than one dimension of poverty. Both services and assets are utilised. With this measure, a single score as well as the details relating to each component can be analysed. In addition to a more detailed picture, it also has finer gradations than income between poverty groups, which can be useful in analysis.

2.3 Individual level analysis

So far an argument has been made for the similarity in poverty pictures that the different measures provide with South Africa and Namibia the 'wealthiest' and Lesotho and Zambia the 'poorest'. However, these measures as they stand do not provide any indication of the agreement between the measures (i.e. the extent to which different measures identify the same people). This comparison can be seen in Table 5. The correlation between the two measures is fairly high, with Lesotho once again proving to be an exception. Generally, households that have low-income levels also tend to have low LSM scores. An observation that adds weight to the interrelated nature of income and living standards is the fact that this observation is made across all five countries.

Table 5 Pearson's Rank order correlation of LSM levels with household income levels

	Spearman's correlation coefficient	Significance: $p <$
South Africa	0.669	0.0001
Namibia	0.705	0.0001
Swaziland	0.562	0.0001
Lesotho	0.323	0.0001
Zambia	0.610	0.0001

This is interesting as the same people in the survey are being identified as poor even when the indicators of poverty are very different. This is in contrast to much of the literature that argues that income is an incomplete indicator of poverty (Diaz 2003). However, there is also a degree of variation, which is unaccounted for by this common element. This variation lends some support to the notion of the multidimensional nature of poverty as emphasised by Bourguigon (2002). Laderachi's (1997) proposal of keeping measurement approaches as broad as possible may be able to access some of this unaccounted variation. However, there is much evidence to be found in support of a commonality across the measures.

It is interesting to note that when the relationship between the individual components of LSM and income was explored the components differed across countries as well as across income levels. More of the poor in South Africa and Namibia tend to have ownership or access to LSM components and this would relate to overall higher LSM scores in these countries. With regards to ownership, this may reflect a larger disposable income but with regards to services it may simply reflect a greater degree of infrastructure and development in these countries. Thus, there may be a chance that the LSM is not simply tapping into household living standards but also the degree of national development and service delivery—ultimately something that an individual cannot change. This may provide an explanation for some of the variance unaccounted for in the correlations between income and LSM.

2.4 Exploring variation in the poverty picture

If the pictures as a whole are similar the question as to why there are different measures needs to be raised. Zambia provides an interesting case and a good example as to how specific measures can provide insight on ways to challenge poverty. At a national level, Zambia would appear to be poorer than any of the other countries in this comparison as it has the worst standing in relation to the international poverty line. In addition to this, it also has the highest infant mortality, the lowest life expectancy and the lowest enrolment rate. At the household level, together with Lesotho, it is one of the poorest countries. Thus, at both at a national and a household income level it would appear that Zambia should be the poorest country. At the household level when exploring the LSM it is apparent that rural-urban location is strongly related to income group in Zambia (Table 6). However, despite this strong relationship between rural-urban location and income, the provision of services to the lowest income group in Zambia is higher than that seen in Lesotho and Swaziland. This indicates that at some level the factor of rural-urban location has been overcome to provide better services than are accessible in Lesotho and Swaziland despite the impact of rural-urban location (Table 6). At this level the GDP may account for some of the improved service delivery in Zambia relative to Swaziland. However, the sole impact of GDP does not hold as, in terms of income, Zambia has 44% of the sample earning less than $11 and Swaziland has only 27% earning less than $60.

3 Conclusion

If poverty is multidimensional, then the picture obtained using one measure should be substantially different to one that would be obtained using another measure. Our findings suggest that this is not the case. Across all dimensions of poverty and all units of analysis Namibia and South Africa emerged as the two wealthiest countries followed by Swaziland, Zambia and Lesotho.

Table 6 The percentage of the no income group that own assets

		Phone	Fridge	Vacuum	TV	Hifi	Microwave	Washing machine	Electricity	Water	Domestic
South Africa	No income	10.8	40.6	3.7	44.1	42.8	8.3	3.4	66.8	9.6	0.7
Namibia	No income	15.6	24.4	5.2	21.5	29.6	4.4	2.2	26.7	5.2	3.7
Swaziland	No income	1.9	3.8	0	5.8	7.7	0	0	5.8	0	0
Lesotho	No income	0.5	4.4	0.2	4.2	7.6	0.2	–	0.7	0.2	0
Zambia	No income	1	–	0	9.3	3.3	0.5	–	9.3	2.3	1.9
		Car	Toilet	Shop 1	Shop 2	Insurance	Bank	Credit	Dishwashing	Hut	Rural-urban location
South Africa	No income	9.6	39.9	64.7	66.3	7.4	14.3	6.7	37.2	21.3	37.3
Namibia	No income	7.4	25.9	68.9	74.1	5.2	19.3	3.0	37.0	38.1	62.2
Swaziland	No income	0	0	11.5	23.1	0	5.8	0	0	24	64
Lesotho	No income	1.0	0.2	34.0	22.0	3.7	6.8	3.2	–	54.3	67.7
Zambia	No income	2.8	7	11.7	23.4	0	1.9	0.5	1.9	80.4	89.7

Support for the fact that different measures are identifying the same people as belonging to the poor group was found with high correlations between the two household poverty measures, household income levels and LSM scores. This indicates that different measures provide similar overall pictures on poverty. The high correlations between the two household measures suggest that there is an underlying dimension of poverty that can be detected by different measures.

The general agreement across measures and units of analysis suggests the existence of a common element of poverty across all these dimensions. Literature focuses on the differences across dimensions but this may be leading research away from the fact that there is some common element. If effort was focussed towards the commonality perhaps more generic and successful solutions could be found.

However, this does not provide motivation for the use of income as the sole measure of poverty. Despite similar poverty pictures, the different dimensions of poverty and the levels they are assessed provide details to the basic poverty picture. Small differences between proxy variables at the same level of analysis (for example mortality rate and literacy at the national level) provide insight into specific components or dimensions of poverty. This insight helps policy makers identify the relevant dimensions of poverty that are particularly problematic at each level. Insight such as this helps in the selection of appropriate interventions. Small improvements to relevant areas may allow for more successful interventions than generic blanket interventions.

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