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Analyses of Time-To-Exit Poverty in Idah Local Government Area of Kogi State, Nigeria

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Abstract The legacy of poverty awaiting many of our children is the same that has been handed down to their parents, but at this time when the explosion of prosperity is more general, the taste of poverty is even more bitter. Now, however, the Nation appears committed to a battle against poverty. And as part of planning the how, there is the task of identifying the whom. When thinking about poverty reduction strategies, it may be useful to show how long it would take, at different potential economic growth rates, for the average poor person to exit poverty. Using a poverty statistic with this property, derived by Morduch [1], this study furthered a recent study: Davwar, Nachandiya and Emeje (2017) by determining the average-time-to-exit poverty for each of the four occupational groups analyzed by that study. This analysis showed that given the current National GDP growth rate of 1.5% in the third Quarter of 2018, it will take an average of over twenty five (25) years for the average poor in Idah to exit poverty. The curve of the average-time-to-exit poverty for the Civil servants and the Artisans Occupation groups seems closely related. This implies that a growth in the income level and income stability of the civil servants will likely bring an improvement in the status of the Artisans. The study therefore recommends among other things, a review of the current minimum wage of civil servants and prompt payment of salaries in the state.

Keywords Poverty, Time-to-exit, Poverty Measurement, Alleviation, Watts-index

Introduction

A revolution of expectations has taken place in Nigeria as well as abroad. There is now a conviction that everyone has the right to share in the good things of life. Yet there are still many who must watch Nigeria's parade of progress from the sidelines, as they wait for their turn-a turn that does not come. The legacy of poverty awaiting many of our children is the same that has been handed down to their parents, but at this time when the explosion of prosperity is more general, the taste of poverty is even more bitter. Now, however, the Nation appears committed to a battle against poverty. And as part of planning the how, there is the task of identifying the whom. The initiation of corrective measures need not wait upon final determination of the most suitable criterion of poverty alleviation, but the interim standard adopted and the characteristics of the population thus described will be important in evaluating the effectiveness of the steps taken.

Ukwu, [2] posited that there is no universally accepted definition of poverty. This is corroborated by Davwar, Nachandiya and Emeje [3] that there is not, and indeed in a rapidly changing pluralistic society, there cannot be one standard, universally accepted and uniformly applicable by which it can be decided who is poor. Almost inevitably, a single criterion applied across the board must either leave out of the count some who should be there or include some who, all things considered, ought not be classed as indigent. There can be, however, agreement on some of the considerations to be taken into account in arriving at a standard. And if it is not possible to state unequivocally "how much is enough," it should be possible to assert with confidence how much, on an average, is too little [4]. Whatever the level at which we peg the concept of "too little," the measure of income used should reflect at least, roughly an equivalent level of living for individuals and families of different size and composition. World Bank Report [5-6] sees poverty as hunger; lack of shelter, being sick and not being able to go to school, not knowing how to read; not being able to speak properly, not having a job; fear for the future, losing a child to illness brought about by unclean water; powerlessness; lack of representation and freedom. Some other contributors view poverty in two different perspectives as referring to "moneylessness" and "powerlessness" [7]. Some further argue on the distinction between the concept of "relative" and "absolute" poverty. There is no total agreement on what all these terms mean. Therefore the "poverty line" is various [7]. "Moneylessness" does not merely mean an insufficiency of cash but chronic inadequacy of resources of all types to satisfy such basic human needs as nutrition, rest, warmth, and bodily care. In some societies, many such needs can be satisfied without money, for example by one's agricultural production. What are deemed basic human needs also seem to vary over time and place. "Powerlessness" is a characteristic of poverty which is of great concern to analysts but which "moneylessness" is often mistaken for. The powerless are those who lack the opportunities and choices open to the non-poor, whose life seems to them to be governed by forces and persons outside their control, i.e. people in positions of authority, by perceived "evil forces" (forces which they do not know but believe to be evil since these forces do not always act in their favour) or "hard luck".

The Poverty Profile in Nigeria

The Special Adviser to the President on Social Protection puts the latest poverty index of Nigeria at 67% of Nigerians living below the poverty line [8]. World Bank [5] had earlier reported from a study conducted in Nigeria over the period 1985-1992 that "while the total number of people in poverty declined by over a million, there were significantly different trends in the rural and urban areas. The number of poor people in the rural area fell sharply from 26.3 million to 22.8 million, while those in urban poverty rose from 9.7 million to 11.9million."

This implies that a good number of Nigerians are caught in the web of poverty, and that a larger proportion of these Nigerians reside in rural areas.

The Nigeria governments over the years, in a bid to eradicate poverty set up a number of national programs and agencies to fight poverty [9]. Despite various articulated poverty reduction policy initiatives, the menace of poverty on human life remains unabated [10].

In Kogi state, there was a slight decrease in the proportion of the people living below the poverty line of $1 per day from 87.5% in 2004 to 72.5% in 2010. However, in Idah (our study area), young school aged children and even married women hawking all kinds of foods in the streets even when the children should be in school, is a common sight. The town, though located by the river Niger, does not have portable water supply and people rely on water from a stream which is supplied by old, rusty water Tankers. Outside Idah town itself there are no access roads to the villages. Where there is any, its not motorable. Most children in the streets have torn dresses on them. The people in this area live in fairly small sized houses either roofed with zinc sheets or thatched; it is common sight to find an average of three to five members of a family living in only one room. The streets in the town are very poorly planned as houses are built just any-how with very little element of urban planning. Electricity supply is still poor, most times only twice or thrice a week and may last only six to seven hours. Portable generators are the only source of power in the area, making services dependent on electricity very expensive and out of reach to the average resident.

Causes and Implications of Poverty

The causes of poverty are many and varied. Because some groups in the population are more vulnerable, however, a cross-section of the poor will differ from that of the non-poor, measure for measure. The mothers bringing up children without a father, the aged or disabled who cannot earn, more often than the rest of us, know the dreary privation that denies them good living. But there are others thus set apart, without the handicap of discrimination or disability, who cannot even regard their plight as the logical consequence of being unemployed. There are millions of children in "normal" as well as broken homes who will lose out on their chance ever to strive as equals in this competitive society because they are denied now even the basic needs that money can buy. And finally there are the children yet to come, whose encounter with poverty can be predicted unless the situation is changed for those currently poor. Neither the present circumstances nor the reasons for them are alike for all our impoverished millions, and the measures that can help reduce their number must likewise be many and varied. No single program, placing its major emphasis on the needs of one special group alone, will succeed. Any complex of programs that does not allow for the diversity of the many groups among the poor will to that degree leave the task undone. The poor have been counted many times. It remains now to count the ways by which to help them gain a new identity. This simply calls for a holistic approach to poverty eradication.

Narayan [11] attempts to summarize the causes of poverty into the following two major categories:

(i) That poverty is caused by structural causes that are more permanent and dependent on a host of (exogenous) factors such as limited resources, lack of skills, location disadvantage and other social and political factors. The disabled, orphans, landless farmers, households headed by females fall into these Categories.

(ii) That poverty is caused by transitional causes that are occasioned by structural adjustment reforms and changes in domestic economic policies that may result in price changes, unemployment and so on. Natural calamities such as wars, environmental degradation and so on also induce transitional poverty.

Alade, [10] further outlined ten devastating social problems of poverty as follows:

(1) It generates social conflict and crises.
(2) It leads to attendant health hazards.
(3) Illiteracy and ignorance are seen to be on the increase.
(4) Poverty constitutes a serious threat to social, economic, political and educational stability of a country.
(5) Environmental degradation is heightened.
(6) It generates high level of unemployment and corruption.
(7) Dependency ratio of the poor on the rich becomes high.
(8) It breeds criminality in the society.
(9) Poverty undermines global competitiveness.
(10) Job creation is at a low ebb.

THE World Bank recently released its 2018 economic growth forecasts for nations all over the world. Global Gross Domestic Product, GDP, is supposed to grow by 3.1 per cent during this year. Sub-Saharan Africa will grow marginally faster by 3.2 per cent. But Nigeria, the presumed largest economy on the continent, will manage only a 2.5 per cent growth – if it succeeds. By contrast, Kenya will jump by 5.5 per cent, Tanzania 6.8, Senegal 6.9, Cote d'Ivoire 7.2 per cent and Ethiopia, a whopping 8.2 per cent [12].

Unfortunately, the growth rate of Nigeria's GDP in 2018 did not turn out any better as seen in the first two quarters of the year 2018 (see Chart Below [13]).

"The economy of Nigeria grew 1.5 percent year-on-year in the second quarter of 2018, slowing from a 1.9 percent expansion in the prior period. It was the weakest growth rate since the third quarter of last year, as oil output shrank while the non-oil sector continued to rise [13]."

Chart: Showing Nigeria GDP Annual Growth

Development Strategies Successful in Alleviating Poverty

Whatever strategies are used in fighting poverty, one very pressing goal is “how long will it take to lift these poor out of poverty?” this helps planners know whether it is possible to intensify certain efforts to ensure a faster rate of exit from the scourge of poverty. According to Asian Development Bank, [14]; and World Bank, [15]; after a half century of development experience, there is a broad consensus regarding the major strategic elements that contributed to poverty retreating faster in some regions or countries than in others. These elements are:

1. A rapid poverty reduction has been much more likely to occur in countries and periods characterized by rapid economic growth;
2. An outward orientation and a strategy of export-led growth, based on labor intensive manufacturers, is particularly conducive to poverty alleviation;
3. Emphasizing agricultural and rural development at an early stage and encouraging the adoption of Green Revolution technologies contribute to productive employment creation and lower food prices thereby benefiting the poor;
4. Investment in physical infrastructure and human capital which adds to the resource endowment of the poor unskilled households;
5. Institutions that provide the right set of incentives to farmers and entrepreneurs such as property rights and a reliable and transparent judicial system and, finally;
6. Social policies to promote health and education (particularly female primary education) and social capital as well as minimal safety nets to help protect not only the chronically poor but also those households caught in transient poverty.

Materials and Method

Data for this study which were basically primary were collected from a sample of households selected from the study area. They are basically primary data and were generated from field interviews and structured questionnaires administered to the respondents in the area.

Idah Local Government Area located $7^{0}05'$N, $6^{0}45'$E with a land mass of 36km^2 has a population of 79,815 by the 2006 National Population Census, is made up three districts namely Old-Egah, Edeke and Idah native districts. The actual population of each of these districts is not known, but from observation, they are relatively small, with an average of about 26,000 people each. Stratified Random Sampling was used to select respondent households for collection of the data to ensure good representation. The three districts were used as strata for data collection. Within each stratum, an equivalence sub-sample of forty households was selected using simple random sampling, from where data were collected. A total of one hundred and twenty (120) households were selected as respondents in this study.

Method of Analysis

In a study on poverty in Idah, Davwar, Nachandiya and Emeje [3] used the FGT poverty analyses to decompose poverty among various occupational groups and came up with the following results about the area:

Table 1: FGT Poverty Indices for the Different Occupational Groups

Occupational Group	Sample size	Number of the poor	Poverty line	Head Count Ratio	Proportionate Poverty Gap	FGT
Farmers	39	29	23000	0.7436	0.3637	0.7274
Civil Servants	15	7		0.4667	0.1373	0.0623
Artisans	44	29		0.6591	0.0121	0.0011
Traders	22	12		0.5455	0.1501	0.0938

But when thinking about poverty reduction strategies, it may be useful to show how long it would take, at different potential economic growth rates, for the average poor person to exit poverty. A poverty statistic with this property was derived by Morduch [1]; the statistic is decomposable by population sub-groups and is also sensitive to the distribution of expenditure (or income) among the poor. For the j^{th} person or group below the poverty line, the expected time to exit poverty (that is, to reach the poverty line), if consumption (or income) per capita grows at positive rate ***g*** per year, is given by:

$$t_g^j = \frac{\ln(Z) - \ln(x_j)}{g} = \frac{W}{g}$$

Where:

z is the poverty line

x_j is income of the j^{th} poor person and *W* is the Watts index.

The Watts index can be shown to satisfy the monotonicity and the transfer axioms and was first put forward by Watts in 1968 [15] as:

$$\mathrm{W} = \frac{1}{\mathrm{N}}\sum_{\mathrm{i}=1}^{\mathrm{q}}[\ln(\mathrm{z}) - \ln(\mathrm{y_i})] = \frac{1}{\mathrm{N}}\sum_{\mathrm{i}=1}^{\mathrm{q}}\ln\left(\frac{\mathrm{z}}{\mathrm{y_i}}\right)$$

where the N individuals in the population are indexed in ascending order of income (or expenditure), and the sum is taken over the q individuals whose income (or expenditure) y_i falls below the poverty line z.

The distribution of the time-to-exit is based on the assumption that the economic growth rate is continuous, is in real terms, and is distributionally neutral among the poor. We therefore computed the average time it would take to raise the consumption level of an average poor from each of the occupational groups in Idah to the poverty line, for five hypothetical growth rates of 5%, 10%, 15%, 20% and 25%. The economic growth that acts to raise the real consumption levels of the poor can have a powerful effect on the elimination of poverty. Despite the potency of economic growth, it will generally take more than just growth to rapidly improve the lives of the **very poor**. The expected time to exit poverty for those people who are so poor that they are below the food poverty line in Idah—that is, they cannot afford enough food, even if they were to devote all their consumption spending to food would take a more extended time period even for very high growth rates.

The time-to-exit expression is a very important indicator in poverty studies particularly poverty alleviation strategies. It can be seen that it utilizes the Watts index which is increasingly used by researchers because it satisfies all the theoretical properties that one would want in a poverty index such as, the **Focus Axiom** - the measure should not vary if the income of the non-poor varies; and the two axioms formulated by Sen [17-18], namely: the **Monotonicity Axiom -** Given other things, a reduction in the income of a poor household must increase the poverty measure and the **Transfer Axiom -** Given other things, a pure transfer of income from a poor household to any other household that is richer must increase the poverty measure. Ravallion and Chen [19] argue that these three axioms are essential to any good measure of poverty.

Results and Discussion

Table 2: Respondents' Occupational Distribution [3]

Occupation	Number	Percentage
Farming	39	32.50
Civil servants	15	12.50
Artisan	44	36.67
Traders	22	18.33
Total	120	100

Table 2: FGT Poverty Indices for the Different Occupational Groups [3]

Occupational Group	Sample size	Number of the poor	Poverty line	Head Count Ratio	Proportionate Poverty Gap	FGT
Farmers	39	29	23000	0.7436	0.3637	0.7274
Civil Servants	15	7		0.4667	0.1373	0.0623
Artisans	44	29		0.6591	0.0121	0.0011
Traders	22	12		0.5455	0.1501	0.0938

Table 3: Average Time-To-Exit (years) for different Annual Growth Rates for the Four Occupational Groups

	Annual Income Growth Rate				
Group	**5%**	**10%**	**15%**	**20%**	**25%**
Farmers	18.7	9.4	6.2	4.7	3.7
C/Servants	8.0	4.0	2.7	2.0	1.6
Artisans	8.4	4.2	2.8	2.1	1.7
Traders	25.1	12.5	8.4	6.3	5.0

From the above table, and considering that the national annual GDP growth rate is as low as 1.5%, it can be seen that it will take more than 19yrs, 8years, 9years and 26years for one average poor Farmer, C/Servant, Artisan and Trader respectively to exit poverty given that nothing is done to improve the situation.

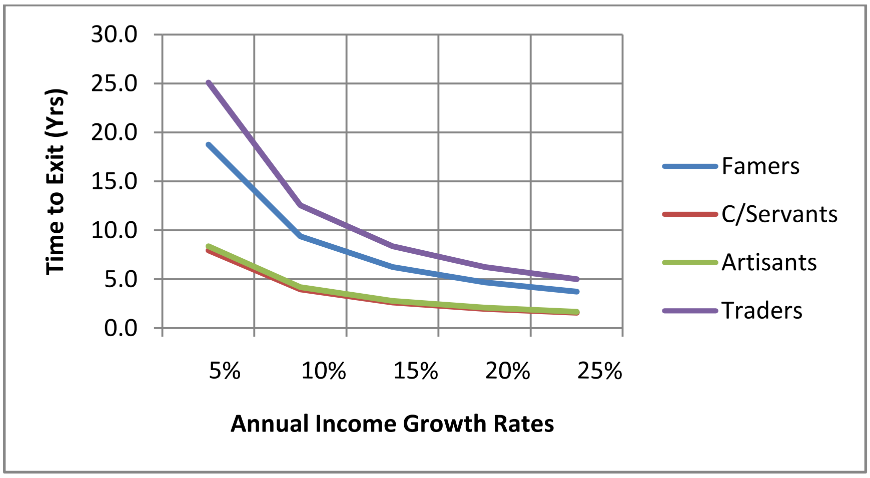

Figure 1: Graph of Average Time-To-Exit for different income Growth rates for the Four Occupational Groups

From the chart above, it can be observed tha the curve for the Civil Servants and the Artisans occupational groups are closely related. This implies that an improvement in the salaries of the Civil servants has a positive effect on the situation of the Artisans. The curve of the traders is worst as the average poor trader will, under the present circumstance take above 25 years to exit poverty.

Conclusion

From the analyses and discussions above, it was concluded that if the battle against poverty must be won, then deliberate efforts must be made aimed at improving economic growth rates the state. Given the status quo, it will take not less than twenty five (25) years for the average poor in Idah to exit poverty. It was also concluded that an improvement (regularity and enhancement) in the salary of workers in the state has great possibilities of affecting other occupational groups positively especially, the Artisans.

Recommendation

From the conclusion above, this paper makes the following recommendations

- Government should ensure that workers' salaries in the state are paid as an when due.
- Institutions that provide the right set of incentives to farmers and entrepreneurs such as micro-finance institutions and agricultural extension services should be strengthened by government and relevant authorities to provide accessible funding and education to agricultural and related businesses and also create rewarding market outlets for farm produce.
- Well-meaning individuals should be encouraged to establish low-fee high quality institutions or provide scholarships to enable the poor access quality education.
- Government must intensify Investments in physical infrastructure and human capital which adds to the resource endowment of the poor unskilled households;
- Government must provide social policies to promote health and education (particularly female primary education) and social capital as well as minimal safety nets to help protect not only the chronically poor but also those households caught in transient poverty.

- Creation of access roads to the interior settlements will enhance commerce in the area.
- Government must dialogue with the poor to design programs that meet their needs, as it is only the poor that understand what they are going through and what they actually need.

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