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## The Viability of Livelihood Assets, Livelihood Strategy and Government Intervention towards Ensuring Sustainable Poverty Reduction: A Pilot Test

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**ABSTRACT:** This paper explores a sample of few data concerning the potency of livelihood assets, livelihood strategy and government intervention and how they contribute in ensuring sustainable poverty reduction in Nigeria. As a pilot study, the investigation was limited to Dange-Shuni local government of Sokoto-state, Nigeria. The study adopted survey approach and data were collected using simple random sampling within the pilot study area (Dange Shuni). The study's model has five livelihood assets, livelihood strategy, government intervention and sustainable poverty reduction as variables. The essence of the preliminary/pilot study was to examine the validity and reliability of the adapted measuring instruments. The validity and reliability of the instrument were assessed using expert rating and the use of data from a small sample which was analysed using SPSS version 22. The result of the preliminary/pilots study espoused the efficacy of the adapted instrument, thus they are valid and reliable.

**Keywords:** Livelihood Assets, Livelihood Strategy, Government intervention, Sustainable Poverty Reduction, Pilot Test, Nigeria.

### 1. INTRODUCTION

Poverty has assumed a dimension in today's world that makes it a worldwide problem, with a more glaring presence in developing and underdeveloped societies of Africa, Asia and Latin America (Ogbeide & Agu, 2015). In the same vein World Bank (2012) revealed that 47.5% of the world's poor are domiciled in Africa which amount to about 386 million people living below the gauge as at 2008. Within the Nigerian sphere poverty has become a bane to households, thus making them unable to address the basic essentials of life of their respective families, putting almost 69% of the population into poverty conundrum (NBS, 2012). Within the Nigerian context incidence of poverty also varies with some States been classified as the poorest (NBS, 2012). The National Bureau of Statistics revealed states whose incidence of poverty range from 70% and above which includes

Sokoto 81.2% Katsina 74.5%, Adamawa 74.2%, Gombe (74.2%) Jigawa 74.1%, Ebonyi 73.6%, Bauchi 73% Kebbi 72% and Zamfara 70.8% (Jacob & Onwughalu, 2015).

Nigeria, which by geographical providence falls into Sub-Saharan Africa has its own share of poverty epidemic which has reached an alarming rate (Okunmadewa, Yusuf & Omonona, 2005), despite a performing economy with a growth rate (that should have occasioned reduction of poverty) of 6 per cent even at the peak of global financial meltdown (Nwaobi, 2003; Omolola, 2008; Ajakaiye & Jerome, 2011; Hassan, Abubakar, & Agboni, 2012; IMF, 2013). As the most populous country in Africa, with a population of about 173.6 million as at 2013, Nigeria has a GDP of \$521.8billion, and GDP growth of 5.4%, which accounts for 47 per cent of Africa's total population (World Bank, 2014). Nigeria is a major producer/exporter crude oil and has largest gas reserves in the African continent, which have given an edge in both human and natural resources that should have ensured vibrant and functional economy that should enhance poverty reduction, provision of infrastructure and social services to meet the aspirations of its people (World Bank, 2014). Paradoxically Nigeria's poverty incidence has been abysmal from the all-time lowest 15 per cent in 1960, 28.1% in 1980; to 46.3 per cent in 1985. The poverty level dropped to 42.7 in 1992; by 1995 it hiked to 43.6% and in 1996 it sky-rocketed to 65% plunging some 67 million people in Nigeria into poverty scourge (Ugoh & Ukpere, 2009) making access to livelihood/ends meet difficult if not impossible.

The disease of poverty in Nigeria today cut-across urban and rural divide with the high concentration of the poor in the rural areas, whose main source of livelihood rest on agriculture (with low farm output, poor access to market and impact of large population on the land for cultivation) 53 per cent of rural dwellers live short of poverty line, while in the urban cities (where underemployment and unemployment prevail) 34 per cent of its



inhabitants live below poverty line (Leke, Fiorini, Dobbs, Thompson, Suleiman & Wright, 2014).

According to OPHI (2015) incidence of poverty rate in Nigeria was high based on head count ration using \$1.90 as threshold. The multidimensional poverty index value for Nigeria was 0.303, poverty incidence (53.3%), intensity of poverty was (56.8%) while the population of the vulnerable was (17.5%). While in terms of severe poverty 32.8% are poor, destitute 34.6% and inequality gini-coefficient amongst the MPI poor was 0.297 which further explained incidence of poverty in Nigeria. Similarly, in terms of Health there are 89 deaths of children less than five years in every 1000 live birth, infant mortality rate 58 in every 1000 live birth while maternal mortality stood at 243 women in every 1000 cases of pregnancy and birth related problems. This could be attributed to the poor status of the people in the country coupled, with poor health facilities and inadequate man power and health personnel. In a similar vein, the 2010 harmonized national living standard survey (HNLSS) revealed an alarming rate in terms of Nigeria's poverty profile with national poverty rate reaching 41.0% food poor, 60.9% absolute poor, 69.0% relatively poor and 61.2% on \$1 dollar basis (NBS, 2012). In view of the aforementioned, this paper employed sustainable livelihood approach with a view to have a holistic understanding of the multidimensional incidence of poverty in Nigeria. To achieve this, the paper adopts human asset, social asset, physical asset, financial asset, natural asset and livelihood strategy as predictors/independent variable, while government intervention is the interacting (moderating) variable and sustainable poverty reduction and the criterion/dependent variable.

## 2. LITERATURE REVIEW

Human asset entails a collection of productive skills symbolized in a person which can be deployed to generate a means of income in the labour market to enable household's consumption in form of livelihood. HA empowers individuals, which gives individual or household the opportunity to invest in their own human asset, it in turn affects the sharing of life-time earnings in the society, with those rich in human asset having advantage over the rest of the household or society whose human asset base is poor (Weiss, 2015). HA entails household's capability and resources that is skills, knowledge (Education), capability to exact their physical and psychological ability to work (farm or off-farm) to earn a living and good physical and material health which enable them to engage in livelihood strategies (DFID, 1999; Krantz, 2001). The proponents of HA approach largely posited that "the difference between prosperity and poverty for a country depends on how fast it grows

[economically] over the long term" (Barro, 2002: 9). Therefore much emphasis has been accorded to education, which is a component of HA as a catalyst that enhance the economic well-being of those who invested in it (Andres, A., Chavez, 2015). Capability HA remains an integral part of the subject (Human), hence it becomes a perpetual characteristic, so cannot be sold, but remains in contact with the larger society and market, while affecting positively the earnings of the human agent thereby enhancing his livelihood (Andres & Chavez, 2015; Sen, 1997; Schultz, 1971). Empirically, human asset has been adjudged to impact positively on livelihood hence its importance in ensuring poverty reduction. This has been explained by (Kamaruddin & Baharuddin 2015 in Malaysia; Seng 2015 in Cambodia; Kumo 2015 in former Soviet, Eastern and central Europe, and Kamaruddin & Shamsuddin, 2014 in Malaysia).

### Financial Asset

Financial asset means, the financial resources/assets that people need or use to pursue their livelihood desire. This includes flows and stocks which contribute to consumption and production in the context of livelihood earnings, thus making it a vital livelihood building block in relation to availability of cash or equivalent, which enhance livelihood strategies (DFID, 1999). It has been posited that, there are basically, two sources of financial asset "accessible stocks (cash, Bank deposits or liquid assets [jewelry & livestock]; and regular inflows of money [labour income, transfers, pension and remittance] which are mostly dependent upon others" (Bajwa, 2015: 9). Arguably, financial asset is the most useful of all assets as its acquisition can lead to having other assets towards achieving livelihood aspirations (for instance investing on education (human asset), purchase of food to averts food insecurity (Bajwa, 2015), however financial asset has constraints to the poor in terms of assess (Kollmair & Juli, 2002). Economic/financial asset (as it has been called interchangeably), means the capital base (cash, credit/debt, savings, and other economic assets, including basic infrastructure and production equipment and technologies) which are essential for the pursuit of any livelihood strategy (Scoones, 1998).

Empirical studies by (Thi, Dao, & Manh, 2013; Arun, Annim & Arun, 2013; Shehu & Abubakar, 2015; and Mendez-Lemus & Vieyra, 2014) have backed the role of financial asset in curbing poverty and vulnerability to it.



## Social Asset

Social asset basically refers to a set of trust, institutions, social norms, social networks and organizations which shape the relation of actors in a society and forms asset to the individual and the collective interest toward ensuring well-being (Coleman, 1988). Loury (1977) advanced the concept 'social asset and later was popularized by Bourdieu's (1986), Coleman's (1988, 1990) and Putnam's (1993) studies, although, it existed before then (Banfield, 1958). Social asset equates 'the totality of resources, actual that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition' (Bourdieu, 1986: 2). To Adler and Kwon (2000), social asset is the nature of social relations that accelerates action and unlike other types of assets social asset is rooted in the organization of their relationships. Central to it, is membership in form of relation with others, hence others link a member to opportunities (Portes, 1998), it is not the sole asset of any single individual (Coleman, 1990), it is group centred and social structure inbuilt (Narayan, 1999), and signifies characteristics of social organization which may enhance society's efficiency, accelerating harmonized actions (Putnam, 1993), comprising horizontal and vertical social formations that bind indigenous groups to wider social groups (Grootaert, 1997). Social asset has component such as; collective action which conveys opportunity for equal benefit to collective action (Woolcock, 1998), it ensure social support, assimilation and unity amongst members (Requena, 2003), interpersonal ties which entails linear combination of "emotional intensity, mutual confiding and collective sharing (Granovetter, 1973). There is further classification of subtypes of Interpersonal ties to: bonding, bridging and linking social asset (Halpern, 2005). The table below provides explanation on bonding, bridging, and linking ties in term of levels of interpersonal ties or social interaction. Another important components of social asset are cognitive and structural, where in the cognitive sub-component issues like norm and values are entrenched which impliedly geared people towards solidarity and mutual cooperation (Grootaert & Bastelaer, 2002; Krishna & Uphoff, 1999), although Mayoux (2001) warned against blind adoption of norms and conventions concerning social asset construction, failure of which may lead to contradiction and biasness toward certain gender, age grade etc. Where as in terms of structural sub-component social asset bring people together and enhance equal benefits resulting from collective action through networks and responsibilities (Uphoff, 2000).

Empirical literature suggested that access to social asset influence poverty reduction outcome. This was evidently shown in the of (Bosongo, Longo, Goldin & Muamba, 2014; Dzanja, Christie, Fazey & Hyde, 2013; Mawajje & Holden, 2014; Mendez-Lemus & Vieyra, 2014).

## Physical Asset:

Physical asset is basically seen as resources employed in production, which are also a product of human construction (reproducible). It could be a machines/equipment, buildings or vehicles and other movable and non-movable facilities. Unlike other types of asset (human, financial, social and financial) physical" symbolized an immovable (in some context) fixed asset, although physical asset in some sense disregards non-reproducible production elements like land (Kataria, Curtiss & Balmann, 2012).

Physical asset involves the basic facilities and other resources required to enhance livelihoods. Infrastructure comprise of modification or transformation impacted on the physical environment which in turn enables people to realize their basic needs and improve their productive capacity (DFID, 1999). Producer goods signify kits or apparatus which human beings influence through their physical and mental power, which translate to production process. In this context physical asset assumes resources or assets critical to sustainable livelihoods attainment, these include "affordable transport; secure shelter and buildings; adequate water supply and sanitation; clean environment, affordable energy; and access to information /communications" (DFID, 1999).

Empirical studies attested to the viability of physical asset in ensuring livelihood attainment hence its impact on poverty reduction. Some of the studies include (Seng, 2015; Kumo, 2015; Kamaruddin & Shamsuddin, 2014; Ahsan, 2014; Ahmed, Troell, Allison & Muir, 2010; Alfonso et al, 2015, Gounder, 2013; Adunga, 2013; Mendez-Lemus & Vieyra, 2014).

## Natural Asset

Natural capital represent the living and non-living elements of ecosystem, apart from people and what they produce, which adds to the making of goods and services that are important for the well-being of the people (Guerry et al., 2015). Ellis (2000) conceived Natural asset as those resources which include land, water and biological resources which people act upon to create livelihood earning for survival. This emphasizes that natural asset is multidimensional, and that it can comprise both renewable and non-renewable assets (Ellis, 2000: 32; Carney, 1998: 7). Like other livelihood assets NA has been supported empirically in terms of



contribution to livelihood outcome which also affect poverty reduction. These empirical studies include (Ahsan, 2014; Bosongo, Longo, Goldin & Muamba, 2014; Gounder, 2013; Dzanja, Christie, Fazey & Hyde, 2013; Adunga, 2013).

### **Livelihood Strategy**

Livelihood strategies entails a structured collection of life-style objective, benefits and undertakings influenced by ecological resources, socio-economic, political, and emotional element devised to secure an ideal standard of life for households, individuals social settings (Walker, Mitchel & Wismer, 2001). It entails an overarching concept which explains a collection of activities and alternatives that people resort to, with a view to accomplish their livelihood goals, which range from acquiring stocks, productive services, and reproductive choices (Su & Shang, 2012). It should be noted that, literature emphasized that, livelihood strategies varies, depending on the context and circumstances, households, and over time frame (Collier, 1999; Stirrat, 2004). This clearly shows that livelihood strategies could be diversified and that there are so many dimensions of livelihood strategies. Livelihood strategies according to DFID, (1999) livelihood strategies connotes an all-encompassing notion of processes, activities and options people devise to pursue their livelihood objectives. These activities span from productive activities (formal employment, farming, off-farm labor), investment (raising livestock, assets acquiring, petty trading), and migration (DFID, 1999). Like other variable empirical literature support the importance of livelihood strategy in tackling poverty (Shehu & Abubakar, 2015; Ahsan, 2014; Bosongo, Longo, Goldin & Muamba, 2014; Mendez-Lemus & Vieyra, 2014).

### **Government Intervention**

Government intervention is a general term which denotes the involvement or policy action by government towards reducing the menace of poverty and vulnerability to it in the society. There are different ways by which government can address poverty depending on, specifically, what the government deems fit to do and for what (Loewen, 2009). This has brought the idea that, strategy (ies) adopted by government towards poverty reduction in the society may be one of the broad categorization of the strategies (programmatic or systemic) usually government use to address poverty, although Loewen (2009) posited that the two are complementary in some respect. To DFID (1999) Intervention is a general term which denotes action and processes, institution, laws, programs, state and non-state actors whose goal are to provide, platform for the good of the poor in the society. Literature on

empirical studies suggested the intervention of government in fighting poverty, these studies include (Kamaruddin & Baharuddin, 2015; Kumo, 2015; Kamaruddin & Shamsuddin, 2014).

### **Sustainable Poverty Reduction**

Poverty reduction has no clear cut or precise definition and lacks consensus as to what exactly it is, that is to say it involves different things, as poverty itself is has typologies. This has made it difficult to use the rule of “one size fits all” that is to say one strategy or program cannot fit all circumstances as poverty is multidimensional in terms of context, content, people and places. Notwithstanding the difficulty, poverty reduction symbolizes redistribution of income, addressing public good and socio-political reform and development on sustainable basis (Barder, 2009). Poverty reduction denotes changes via policy interventions so as to change socio- cultural and economic conditions that produced poverty initially, enhances gender equality and the empowerment of women, democratic principle and good governance, addressing climate challenges, and averting diseases. These made poverty reduction activities broad and more encompassing approach with the goal of attaining well-being on sustainable basis (UNDP, 2013).

In determining the success of poverty reduction, approaches adopted provide the parameters or indicators that constitute what progress is towards walking out of poverty, for instance if income approach was adopted progress would be measured when poverty depth in the society is reduced and significantly people exceed the required income level or when asset/capability approach is adopted the goal of poverty reduction would be measured through level of livelihood assets (human, physical, social, financial, natural etc.) accumulated or capabilities gained by households heads or individuals (Loewen, 2009).

### **Pilot Test**

Pilot test implies preliminary test, trial or study which involves small scale empirical study before the main study is carried out (Gay, Mills & Airasian, 2006). In view of this, the present pilot study was conducted with the view to assess the validity and reliability of the instruments adapted for the purpose of the main study, which would enable the researcher to familiarize himself with issues and problems, which will help in the conduct of the main research in making it hitch-free (Aminu & Sharif, 2015). The main concern of the pilot study is to ensure validity and reliability of the survey instrument. Validity deals with the extent to which an instrument captures and measure what it should actually measure, whereas reliability



assesses the consistency of the instrument and to ensure that it is error free (Sekaran & Bougie, 2010). Therefore, the outcome of the pilot study presents the viability and efficacy of the livelihood assets, livelihood strategy and government intervention towards sustainable poverty reduction in Nigeria.

### 3. MATERIAL AND METHOD

The present pilot study adopts survey research design to do away with any doubt about the validity and reliability of the instrument, therefore the submissions of the preliminary study would be integrated by the main study and make amends where necessary. The unit of analysis for the present pilot test is the household, where household head would be target, this is in line with (Ng'ang'a, Jeannette, Notenbaert, Moyo, & Herrero, 2011; Mandere, Ness, & Anderberg, 2010). The sample size for a preliminary/pilot study is usually small (Fink, 2003), although Dillman (2007) suggested that the sample size could be increased up to 100 when need be. In this pilot test a total of 50 questionnaires were distributed using stratified proportionate random sampling. Structured question were asked via questionnaire instrument where data were collected, and the questions were close-ended and multi-choice, which make it more reliable instrument that is stress-free, simple to both the respondent and the researcher, and in turn makes coding and analysis more simple and convenient (Sekaran & Bougie, 2010).

Similarly, the items for the pilot test were graded on a five-point Likert scale, which avails the responded the opportunity to choose between options provided. From the total number of the 50 questionnaires distributed, 40 were returned out of which 30 questionnaires were found to be usable and suitable for the preliminary test and the analysis of data. This has made the researcher to

achieve 60% response rate. In relation to the validity of the instrument, content validity was conducted to ensure that the instrument is measuring exactly the constructs of concern. With regard to reliability, reliability test was conducted by the study using Cronbach's coefficient alpha which is adjudged to be more reliable when testing the internal consistency (reliability) of the instrument (Sekaran & Bougie, 2010). The paper employed SPSS v22 in testing the reliability of the measures.

### 4. RESULT AND DISCUSSION

#### Validity Test

Content validity involves consulting of a group of experts who are professionals/specialists in an area with a view to rating/assessing the efficacy of items designed to measure a particular construct (Sekaran & Bougie, 2010; Hair, Wolfinger, Ortinau, & Bush, 2008; Laushe, 1976). In line with this, experts on livelihood studies were consulted from Universiti Utara Malaysia, and Usmanu Danfodio University, Sokoto who are familiar with the terrain of Sokoto and Nigeria in general. Similar the instrument was subjected to my supervisor's assessment to that construct of concern are being measured by the instrument. Related that, some item were rephrased and re-worded, which was basically to ensure that the construct are captured, hence the more understandable it becomes to the target respondents.

#### Reliability Test

In relation to reliability test, the results reveal that, all the constructs have good internal consistency, although it varies ranging from at least 0.65 to 0.85. These coefficients' thresholds fell within bench marks set by Murphy and Davidshofer (1988) as follows;

**Table1 Accepted Reliability Coefficients Threshold**

Unacceptable level	Below 0.6
Low level	0.7
Moderate to high level	0.8 - 0.9
High level	0.9

Source: Murphy and Davidshofer (1988)

Similarly, the reliability test of the study proves that, the internal consistency of the items is good for the main study as suggested 0.6 (Nunnally, 1967); 0.7 to 0.8 (Kaplan & Sacuzzo, 1982; Hair, Black, Babin, Anderson & Tatham, 2006). The table below summarizes the result of the reliability test for the study.

**Table 2. Reliability Test Results**

Construct	Number of items	Cronbach's Coefficient Alpha
Human Asset	8	.70
Social Asset	6	.86
Physical Asset	14	.85
Financial Asset	9	.75
Natural Asset	8	.70
Livelihood Strategy	16	.73
Government Intervention	10	.70
Sustainable Poverty Reduction	10	.74
<b>TOTAL ITEMS</b>	<b>81</b>	

Source: The Researcher

Obviously, what could be seen from the table above is that, the reliability test results of the pilot study indicated that, the values of the coefficient alpha of the respective construct under study are within the threshold suggested, as such it can be concluded all the construct of concern have acceptable coefficient alpha value, thus they met the reliability criterion.

### Conclusion

The main objective of this preliminary study is to ascertain the validity and reliability of the items for the present study, so as to prepare ground for the main empirical study. The full scale study will further reveal the efficacy of the construct under study. It could be deduced that, all the coefficient alphas are reliable, and thus suggested the reliability of the whole instrument (items and constructs).

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