



## IMPACTS OF LIVELIHOOD ASSETS ON WELLBEING OF RURAL HOUSEHOLDS IN NORTHERN NIGERIA

Yusuf Kasim <sup>a\*</sup>

<sup>a</sup> *Department of Public Administration, Umaru Ali Shinkafi Polytechnic, Sokoto, NIGERIA.*

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### ABSTRACT

This study explores the determinants of well-being amongst rural households in Northern Nigeria, particularly, as it relates to accessibility to livelihood assets. Specifically, this study examined the correlation between access to human assets, financial assets, and well-being. Quantitative approach through a cross-sectional survey method was employed while the questionnaire was used, and the data for the study were collected from 350 rural households in Sokoto State using purposive sampling, and partial least squares (Smart-PLS 2.0) was used to evaluate the statistical significance and correlation between the predictors and criterion variables (Human Asset, Financial Asset, and Well-being). The results of the study revealed that accessibility to human assets and the financial asset has a positive effect on well-being. This study concludes that for well-being and prosperity to thrive in Northern Nigeria, rural households need to have access to human assets and financial assets to overcome poverty and vulnerability. Similarly, the study suggests further studies in another geographical context in Nigeria, the collection of data using a longitudinal survey and the examination of the effect of other livelihoods assets on well-being. Additionally, in terms of policy implication, the study suggests that concerned authorities in the Northern Nigeria in particular, and the Nigerian government, in general, should emulate the Malaysia strategy towards ensuring the well-being of the rural households through ensuring access to critical resources or assets that enhance well-being to support the sustainability of their livelihoods.

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## 1. INTRODUCTION

Attaining wellbeing has become an issue that has generated a lot of concern because of its close relationship with poverty, and more importantly its economic dimension that is used as an indicator for poverty and ill-being (Ahmad et al., 2016). This has made the quest for wellbeing not only an international issue but also yardstick for the sustainability of livelihoods both in urban and rural areas. However, resources that are critical to the attainment of wellbeing are lacking, particularly, in sub-Saharan Africa where poverty and other forms of deprivation manifest more thereby making

livelihood sustainability a more difficult task, therefore living standard in the SSA is poor and the sub-region has turned out to be the pool of poverty and ill-being in the World (Ochieng et al., 2017). Related to the above it has been asserted that the incidence of ill-being has resulted in having a significant population in sub-Saharan Africa in despair and hunger (Amao et al., 2017).

Nigeria which is the focus of this study has its worrisome share of ill-being, poverty and deprivation, therefore, it is not surprising that studies revealed that issue of wellbeing, particularly, of rural households is appalling despite natural and human resources the country is endowed with (Amao et al., 2017; Kanayo, 2015). This submission attests to the branding of Nigeria as poverty-stricken country, although in the midst of abundance in human and material resources, with high rate of poverty, hunger, unemployment, high rate of out of school children, high rate of child and maternal death with an alarming rate of malaria (Jacob, 2015), thus wellbeing in Nigeria has become in doubt. Similarly, geopolitical zones in Nigeria have their share of poverty and ill-being with Northern Nigeria having highest population poor who are largely rural dwellers in wanton deprivation and ill-being (Udoh et al., 2017).

The upsurge of literature about wellbeing indicates how important the issue of achieving wellbeing has become in today's world for instance impact of foreign aid on wellbeing (Abubakar, 2015), impact of fair-trade on wellbeing (Seville et al., 2011), Zakat and wellbeing (Kasri, 2017), ecotourism and wellbeing (Lima & Hauteserre, 2014), effect of social capital on wellbeing (Seferiadis et al., 2015), role of economic growth towards promoting wellbeing (Quartey et al., 2017), effect of solid waste management on wellbeing (Rahman et al., 2017). However most of these studies conducted were in other geographical context and the very few conducted in sub-Saharan Africa and Nigeria, were not in Northern Nigeria, particular on the effect of human and financial assets on the wellbeing of rural households, thus the need for this study in the empirical context chosen by this study. Accordingly, in its quest to study wellbeing of rural household in Northern Nigeria, this paper subscribed to the postulation of sustainable livelihood approach which sees the wellbeing within the frame unhindered access to livelihood asset, competent capabilities and other material and non-material resources that are fundamental to the sustainability of livelihood as the means for achieving wellbeing (Morse & McNamara, 2013). Additionally, the choice of SLA was on the submission that, sustainable livelihood leads to wellbeing as it enhances the capabilities of households and protect them from poverty and vulnerability (Chambers, 1995). It has been asserted that, SLA is central to rural development and by implication it promotes wellbeing of rural households since it empowers them socially, economically and politically (Scoones, 2009), therefore this study finds SLA suitable for the present study. This paper therefore aims at exploring the relationship between human asset, financial asset and wellbeing of rural households in Nigeria.

## **2. LITERATURE REVIEW**

### **2.1 WELLBEING**

Wellbeing represents a state of fulfillment, abundance in health and wealth which indicates a positive change in the quality of life of a person or group of persons. It is that material, psychological/meta-physical wellness that indicates an improvement in the quality and longevity of one's life or of a population, resulting from upward improvement in income, access to community

assets and social services which create a material condition for good standard of living and general human development (Popova, 2017). In a similar view, wellbeing is conceived as a state in which wealth is created, thus giving birth to the attainment of the good life, secured livelihoods as well as socio-economic empowerment (Chambers, 1995). Accordingly, wellbeing is associated with a state of being happy which may either be occasioned by ties, a social relation or economic pathways that produce the condition of wellbeing (Seferiadis et al., 2015). In the context of this study, wellbeing represents a socio-economic condition that guarantees an increase in income, food security material health, savings and easy access to community capitals which, by and large, are fundamental to human development.

Empirical studies established the linkage between access to livelihood assets and human wellbeing, and particularly, human asset and financial asset which are the concern of the present study for instance increase in households' or individual income which enhance more consumption and savings (Adunga, 2013) standard of living, quality of life, income level and access to market (Popova, 2017), education and capabilities (Ahmad et al., 2016). These important elements of livelihood assets are considered to be effective towards improving the standard of living and quality of life of an individual or household which largely influences wellbeing status.

## 2.2 HUMAN ASSET

Human asset symbolizes a collection of capabilities such as skills and aptitude, knowledge, a physical and mental ability that enable households and individual to conquer the ecosystem and meet livelihoods need (Butt et al., 2015). It entails an array of productive capacities that empower the individual or household towards earning livelihood which in turn secure the individual or household that accessed and utilized it (Kamaruddin & Samsudin, 2014). Fundamentally, human asset enables those that utilized it to have advantages of engaging into gainful employment, off-farm activities, and other forms of engagements that pay and support livelihoods accomplishment which lead to poverty reduction (Weiss, 2015). Sen (1997) argues that human asset rest on individual's capabilities which involve knowledge, economic, social and mental capabilities which jointly would enhance investment and in turn lead to livelihoods attainment of the individual or household. It is therefore imperative to infer that, human asset depict knowledge, employment opportunities resulting from the physical and mental capability that all together empower those that utilized it and enable them in meeting their livelihoods requirements.

Empirical literature stressed the linkage between access to human asset and poverty reduction, for instance it was established that access to human asset enhances income of household (Kamaruddin & Baharuddin, 2015), while in terms of food consumption it has been submitted that access to human asset improves and sustains food intake of households (Parmawati, 2018). Furthermore, the need to have access to human asset has been emphasized as it empowers households and helps towards improving their wellbeing (Sulemana et al., 2018). It has been observed that lack of education and low-level educational qualifications have relation to poverty incidence, as such level of education relates positively to sustainable poverty reduction (Ibrahim et al., 2018). Accordingly, it could be emphasized from the above overview that access to human assets consistently has an impact on sustainable poverty reduction as access to human assets enhances sustainable livelihoods. The referred studies were conducted in other contexts other than Nigeria and Northern Nigeria

respectively, thus there is the need to further conduct a similar study in another environment to reassert the viability of access to human asset towards ensuring wellbeing. This study, therefore, presumes the positive effect of access to human asset towards attaining, therefore hypothesized that:

*H<sub>1</sub>*: There is a positive relationship between access to human assets and Wellbeing.

## **2.3 FINANCIAL ASSET**

Financial asset implies a range of economic sources and resources that empower households and individual to accumulate wealth and make an investment, and develop livelihood strategy to sustain their livelihood (Ibrahim et al., 2018). Similarly, financial assets comprise of accessible stocks like cash and deposits, liquid-able assets such as livestock, and income or cash flow from regular income, farm and off-farm activities, transfers and remittance which improve livelihoods and provide an opportunity to accessing other livelihood assets (Bajwa, 2015). A financial asset is conceived as economic resource pathways that include deposits and credit in monetary terms, assets, and savings in banks as well as productive infrastructure that enhance livelihoods outcome and potential which in turn affect the wellbeing of households (Scoones, 2009).

Empirical studies indicate the correlation between access to financial assets and the sustainability of livelihood outcomes and in turn wellbeing. A study conducted (Ibrahim et al., 2018) asserted that access to financial assets enhances access to health and medical facilities as the household can afford medical bills which have a resultant effect on human assets of the household. Similarly, a study conducted in Malaysia (Kamaruddin, & Baharuddin, 2015) stressed that income increase supports household livelihoods which further helps in improving their wellbeing. In line with this, it was further confirmed that access to financial assets enhances the wellbeing of households as a benefit of transfer was found to have a positive correlation with increased income (You et al., 2019). Furthermore, findings of a study conducted to support the importance of access to a financial asset, and particularly possession of the liquid asset and transfer from the government in form of support in improving the livelihoods of household and ensuring wellbeing (Patnaik, & Narayanan, 2015). The referred literature emphasized the importance of accessibility to the financial asset as a veritable resource for securing and ensuring the sustainability livelihood which could result in wellbeing. The referred studies were conducted in other contexts other than Nigeria and Northern Nigeria respectively, thus there is the need to further conduct a similar study in another environment to reassert the viability of access to financial asset towards ensuring wellbeing. Therefore, this study hypothesized that:

*H<sub>2</sub>*: There is a significant positive relationship between access to financial assets and Wellbeing.

## **3. METHODOLOGY/MATERIALS**

This study adopts a quantitative research design. Specifically, cross-sectional design was employed and a questionnaire was used for the collection of data for this study which was basically for the purpose of exploring the effect of Human asset and Financial assets on the Well-being of rural households in Northern Nigeria. Similarly, descriptive survey was embraced as it measures what occurs rather than why it occurs (David, 2004). This survey approach was found suitable for this study. Additionally, the purposive sampling method was used to draw the sample for the study and the justification for the selection of the purposive sampling technique was based on existing literature

which indicated that Sokoto State is amongst the States with high incidence of poverty in Nigeria (Anyebe, 2015) vis-à-vis being homogenous with other State in Northern Nigeria. Similarly, purposive sampling was adopted in line with the submission that when the terrain is well known to the researcher purposive sampling can be good for a study, thus the sample drawn can stand as a representative sample (David, 2004). The sample size was determined using Krejcie and Morgan sample size determination table which indicated that 384 samples are adequate for a population of more than a million (1,000,000). Thus, this study 384 respondents were drawn within Sokoto State in line with (Krejcie & Morgan, 1970).

The method for data analysis used in this study was Structural Equation Modelling using partial least squares software (Smart-PLS 2.0) path modeling in line with (Joe F Hair, Ringle, & Sarstedt, 2011). The justification for using PLS-SEM was based on its efficacy of both assessing the measurement model as well as the structural model as asserted (Hair et al., 2011).

#### 4. RESULTS AND FINDING

This section of the paper deals with the evaluation of the data collected from the selected respondents within the empirical area using PLS-SEM 2.0 as submitted (Hair, Hult, Ringle, & Sarstedt, 2014). In the evaluation process measurement model was considered through the assessment of Average Variance Extracted (AVE), items loading and discriminant validity for both the predictors and criterion variables, while in assessing the structural model hypotheses were tested through the assessment of path coefficient, while  $R^2$ , effect size  $f^2$  and model's predictive significance were all determined.

##### 4.1 ASSESSMENT OF MEASUREMENT MODEL

As stated earlier in the methodology part, Partial Least Square (Smart PLS 2.0) was used for the assessment of the measurement model (Hair et al., 2014) as the tool for the analysis of data in this study. The scientific tool employed for the analysis of the data assesses measurement model which basically evaluates the reliability of the measures of the variable of a study, in particular, it assesses the reliability of the measures of all the reflective variables of this study (HA, FA & WB) which by and large explore the goodness of fit of the model itself so as to attain universal practicability (Hoe, 2008). Figure 1 shows the measure model via the PLS algorithm.

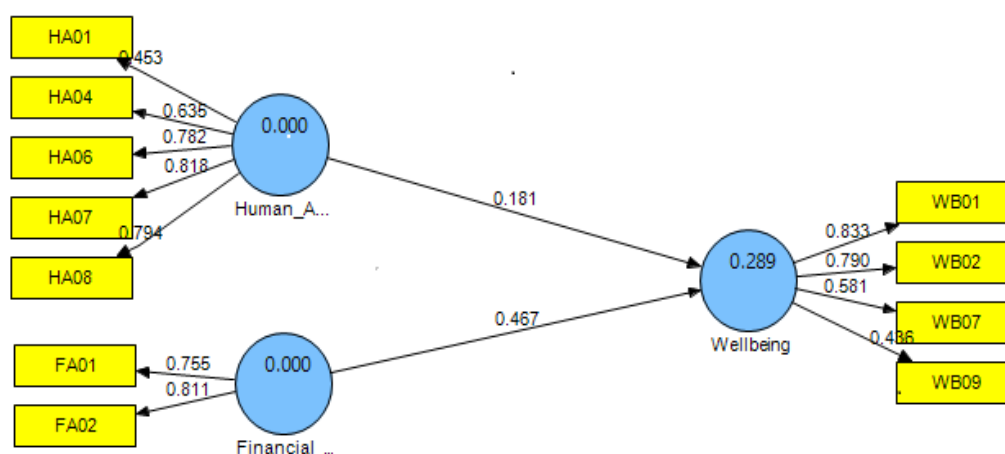


Figure 1 Measurement Model (PLS Algorithm)



**Table 1 : Factor Loading, Composite Reliability & Convergent Validity**

Construct	Items	Loadings	AVE	Composite Reliability
Human Asset	HA01	0.45	0.50	0.83
	HA04	0.63		
	HA06	0.78		
	HA07	0.82		
	HA08	0.79		
Financial Asset	FA01	0.76	0.61	0.76
	FA02	0.81		
Wellbeing	WB01	0.83	0.50	0.76
	WB02	0.79		
	WB07	0.58		
	WB09	0.44		

**Source:** Simulation by Researcher

Table 1 above shows the results of measurement model assessment related to factor loading, AVE and composite reliability of the study's constructs (HA, FA, WB). Additionally, the results indicate that all the parameters for assessing measurement scale are met, for instance, all the loadings attained the minimal value required of an item for it to be an accepted indicator measuring construct ranging between 0.44 and 0.83 see (Hair et al., 2014). Similarly, the values of the AVE and composite reliability assessed are all within the accepted levels with AVEs of 0.50 (HA); 0.61 (FA); and 0.50 (WB) as expressed (Hair et al., 2014). Therefore, it is pertinent to say that reliability, internal consistency, and convergent validity are all achieved by this study.

Additionally, Discriminant validity was assessed in this study as suggested by literature (Hair et al., 2014). In this context, discriminant validity was basically assessed to ascertain how the measures of the study's constructs converge in capturing their respective constructs which were evaluated using the square root of AVE of the individual construct. Diagonally the values of AVEs' are greater than the loadings beneath it, hence it shows that discriminant validity is attained. Table 2 demonstrates further.

**Table 2: Discriminant Validity (Fornell-Lacker Criterion) (Source: PLS Output).**

	Financial Asset	Human Asset	Wellbeing
Financial Asset	0.78		
Human Asset	0.23	0.71	
Wellbeing	0.51	0.29	0.70

#### 4.2 ASSESSMENT OF STRUCTURAL MODEL

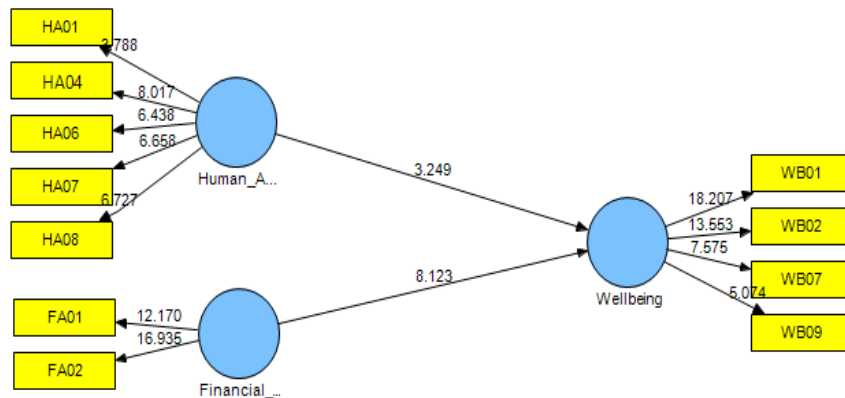
In particular, assessment of structural model deals with testing (statistically) validity of the hypothesis and this study, two (2) hypotheses were examined using path-coefficients, coefficient of determination, individual contribution (effect size) and the model's predictive weight, while bootstrapping method was employed for the path-coefficient assessment (hypothesis testing) all the hypotheses being directional (1-Tailed). The Figure 2 shows the path modeling.

**Table 3: Results of Hypothesis Testing (Source: Author's PLS-SEM Output)**

Construct	Beta	STD. Err	T. Values	Judgment
Financial Asset → Wellbeing	0.47	0.06	8.12	Supported
Human Asset → Wellbeing	0.18	0.06	3.25	Supported

Table 3 captures the results for hypothesis testing which revealed that all the hypotheses of the study are statistically and positively significant, thus supporting the assertion that there is strong positive relationship between access to Financial asset (FA) and Wellbeing (WB) with  $\beta$ -value of

0.47 and t-value of 8.12, as well as between access to Human asset (HA) and Wellbeing (WB) with a  $\beta$ -value of 0.18 and t-value of 3.25 respectively.



**Figure 2** Structural Model (PLS Bootstrapping).

### 4.3 DETERMINATION OF R<sup>2</sup>

In the evaluation of the structural model determining the value of R<sup>2</sup> is very central therefore this study considered as suggested (Hair et al., 2014). The significance of the coefficient of determination cannot be overemphasized because it sums up the total effect of the exogenous constructs on the endogenous construct. It has been posited that the coefficient value attained could be substantial, moderate and weak at 0.75; 0.50 and 0.25 respectively (Hair et al., 2014). It should be noted that the coefficient of determination Table 4 usually indicates variance explained which in this study 0.289 above the weak threshold, therefore it could be deduced that the construct of this study contributes about 29% in attaining wellbeing.

**Table 4:** Coefficient of Determination (R<sup>2</sup>) (Source: Author's PLS Algorithm)

Construct	R-Squared value (R <sup>2</sup> )
Wellbeing	0.289

The next technical endeavor by this study is the determination of the effect size  $f^2$  which basically aimed at evaluating the individual contribution of the exogenous constructs (IVs) which is done through excluding, one after the other, the individual exogenous constructs to what change will occur in original value of the R<sup>2</sup> (Included), thus the formula was used as espoused (Hair et al., 2014) was adopted which summarized effect size as

$$f^2 = \frac{R^2 \text{ included} - R^2 \text{ excluded}}{1 - R^2 \text{ included}} \quad (1).$$

**Table 4:** Evaluation of Effect Size (Source: Simulation by the Researcher).

Latent Construct	R2 Included	R2 Excluded	F-Squared	Effect Size
Financial Asset	0.29	0.14	0.22	Medium
Human Asset	0.29	0.26	0.04	Small

Table 4, results show that all the exogenous constructs of the study have an effect on the endogenous construct since the removal of the individual construct caused changes in the coefficient of determination R<sup>2</sup>, therefore it suffices to say the exogenous constructs have an impact (medium

and small) on the outcome (endogenous construct).

#### 4.4 EVALUATION OF PREDICTIVE RELEVANCE

This component of the study assesses the predictive worth of the study's model and in line with that blindfolding technique was used via evaluation of construct cross-validated redundancy as suggested (Geisser, 1974). The function of predictive relevance rests on its assessment of the goodness of fit of a research model on the premise that if the  $Q^2$  value of a model is greater than zero ( $>0$ ) predictive relevance is achieved by the model (Hair et al., 2014). Accordingly, in line with the above suggestion, it could be deduced that predictive worth by this research is achieved as indicated by Table 5, (SSE = sum square error; SSO = sum square observed). Table 5, the result shows that the  $Q^2$  value of the model is greater than zero as such the model is relevant as its predictive ability is with the threshold.

**Table 5:** Predictive relevance (Source: Author's Blindfolding Output).

Total	SSO	SSE	1-SSE/SSO
Wellbeing	1292	1168.77	0.0954

#### 4.5 DISCUSSION OF FINDINGS

This component of the paper narrates the findings of the study which correlates with previous studies conducted in a different empirical context. It captures the tested hypothesized relationships between predictor (exogenous) variables and the criterion (endogenous) variable. Therefore, the PLS-SEM tool of analysis employed estimated the statistical significance of the relationship as buttressed below.

##### 4.5.1 HUMAN ASSET AND WELLBEING

Accordingly,  $H_1$  states that there is a positive relationship between access to human assets and Wellbeing. Thus to evaluate that PLS bootstrapping was used to ascertain the path coefficients and the results indicate a very significant relationship between access human asset (HA) and wellbeing (WB) with a  $\beta$ -value of 0.18 and t-value of 3.25 (\*\*\*) which support the position that rural households in Northern Nigeria should have access to Human asset so as to achieve wellbeing. This finding corroborates the findings of (Ibrahim et al., 2018) that ill-being status of the study's respondent was because they do not have access to Human asset.

Similarly, the finding of this study concurs with the results of (Kamaruddin & Baharuddin, 2015) that access to Human assets enhances the income of the study's respondents thereby improving the wellbeing of their households. Relatedly, the result of this study is in line with a previous study (Kamaruddin & Samsudin, 2014) in which access to human asset was found to have an impact towards enhancing the wellbeing of the rural poor in Malaysia.

Accordingly, this study submits that, for a rural household in Northern Nigeria to achieve wellbeing they must be human asset secure which by and large would enrich them, like knowledge, skills, and maternal health are sacrosanct to achieving wellbeing.

##### 4.5.2 FINANCIAL ASSET AND WELLBEING

Similarly, as with the first hypothesis,  $H_2$  states that, there is a positive relationship between access to financial asset (FA) and wellbeing (WB), therefore to ascertain that PLS bootstrapping was



ran to examine path significance, and the results show a very significant positive relationship between access to FA and WB with a  $\beta$ -value of 0.47 and t-value of 8.12 (\*\*\*) thus signifying strong positive correlation. This finding corroborates a study by (Ibrahim et al., 2018) which mentioned the importance of financial assets towards improving the standard of living. Similarly, livelihood study conducted results indicated the importance of financial assets towards acquiring another livelihood asset which makes life prosperous and hence wellbeing (Udoh et al., 2017).

In a related study on income, diversification results indicate the importance of financial asset in further investment which leads to more income to the households which would have a resultant effect on the overall wellbeing of the household through diversified means of generating income (Loison et al., 2017). Additionally, finding of this study concurs with a study conducted in six countries (Cambodia, Nepal, the Philippines, Sri Lanka, Thailand, and Vietnam) whose finding shows that acquisition of financial asset has efficacy in reducing poverty hence wellbeing is attained (Boonyabanha & Kerr, 2015).

Consequently, it is therefore based on the finding of this study and other empirical studies that this paper submits that for the wellbeing of rural households in Northern Nigeria to be achieved, access to FA or its acquisition is very critical as it enhances income-earning which by and large has effect on their overall living standard.

#### 4.6 IMPLICATION OF THE STUDY

The empirical findings of this study indicate that, access to livelihood assets, particularly, the variables of this study i.e (Human asset and FA) are very critical towards ensuring wellbeing of rural households not only in the empirical area but in other contexts as empirical findings from other societies were brought to fore which converged with the findings of this study.

Empirically, the finding of this study shows that poor rural households could overcome poverty and ill-being if they strive and conquer livelihood assets, particular, they should access and harness the element of human assets and financial assets.

Managerially, the finding of this study provides government and policymakers a strategic paper towards making and implementation of policies that would enhance access to livelihood assets which by and large would impact positively on the wellbeing of the rural households in Northern Nigeria and beyond. This could be achieved through adoption of comprehensive policies and programmes which would have impact on the wellbeing of rural households for instance Malaysian government deployed strategies that enhanced households' human and financial assets which, by and large, influence wellbeing like development of human resource through effective education policies from primary school to tertiary level, TVET which have effect of human asset; while with regard to financial asset *Amanah Ikhtiar* provides loans without collateral, establishment of community shop (*Kedai Rakyat 1Malaysia*) which subsidizes goods and consumable which in turn results in saving cost, whose combined effect have impact on wellbeing (Abdelatti et al., 2016). Similarly, effective entrepreneurial programs (Kamaruddin & Samsudin, 2014) developed by the Malaysia government should be adopted by the government in Northern Nigeria and beyond to promote the wellbeing of rural households. Theoretically, this study has confirmed the postulation of the sustainable livelihood approach which emphasized the efficacy of livelihood assets in curtailing poverty and vulnerability,

thus it guarantees wellbeing.

## 5. CONCLUSION

The study was conducted to assess the impact of access to livelihood assets, particularly, human assets and financial assets on the wellbeing of rural households in Northern Nigeria. The findings of the study confirmed the efficacy of human assets and financial asset on wellbeing. This study adds value to the existing body of knowledge through establishing the correlation between livelihood assets and wellbeing of rural households in Northern Nigeria, particularly, the constructs of this study HA and FA. Recommendations were made to bridge the limitation of the present study, while inferences were drawn from Malaysia which should be adopted to achieve wellbeing in Northern Nigeria.

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Dr. Yusuf Kasim is a Chief Lecturer at the Department of Public Administration, Umaru Ali Shinkafi Polytechnic, Sokoto, NIGERIA. His research encompasses Poverty and Wellbeing study.

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