Science Arena Publications
International Journal of Philosophy and Social-Psychological Sciences
ISSN: 2414-5343
Available online at www.sciarena.com
2019, Vol, 5 (3): 1-8

Socio-demographic Characteristics Associated with Livelihood Strategies of Rural Households in Southeast Nigeria

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Abstract: *The study examined the socio-demographic characteristics associated with livelihood strategies of rural households in Southeast Nigeria. In specific terms, the study examined the socio-demographic characteristics of rural households in southeast Nigeria; identified the predominant livelihood strategies adopted by rural households in southeast Nigeria; and determined the relationship between socio-demographic characteristics and livelihood strategies of rural households in the study area. A five (5)–stage random sampling procedure was used in the selection of a sample size of 180 respondents from a population of 754,702 rural household heads in the study area. For data collection, a structured and validated interview schedule designed in three parts by the researchers was used. Variables in the instrument were measured on a likert-type 4-point summated rating scale of agreement. Descriptive and inferential statistical tools used in data analysis included mean, frequencies, percentages and regression analysis. The regression model was subjected to four functional analysis (exponential log, double log, semi-log, linear log). Exponential model was used to interpret the result because it had the highest R-square ratio of 57.9%. The predominant livelihood strategies found among rural households in southeast Nigeria includes petty trading, remittances from relatives, civil service, crop farming, livestock farming, farm labour, farm product processing, among others among others. The result also revealed that the socio-demographic characteristics that have significant relationship with livelihood strategies of rural households in study area are household size (t = 4.032), occupation (t = 2.756), farm size (t = -2.404) and age (t = -1.768). It was therefore recommended that human capacity development targeted on rural households should emphasize on the acquisition of occupational skills of the household members.*

Keywords: *Socio-demographic characteristics, Livelihood Strategies, rural households.*

INTRODUCTION

Rural households in various parts of the World rely on a combination of activities to meet their daily needs. This has been an age-long practice among rural people and is at the core of livelihood strategies, attracting the attention and advocacy among development experts and scholars in recent years. For (Loubser, 1995), livelihood strategy is the totality of means by which people secure a living, have or acquire in one way or another, the requirement for survival and the satisfaction of needs as defined by the people themselves in all aspects of their lives.

In most rural households across the world, livelihood structures and patterns are complex deriving from a combination of a network of income generating activities which varies enormously according to opportunities, constraints and preferences. Similarly, decisions on livelihood activity or combination of activities are complex with variations across households in various localities. Generally, in a typical rural setting, livelihood pattern of households cut across agricultural and non-agricultural activities. In fact, data from a broad cross section of developing nations indicate that about two-third of rural households earn their livelihood from subsistence agriculture, either as small-scale farmers or as low-paid farm

workers while the remaining one-third engage in petty services (Alimi, Ayanwale and Bamire, 2001). Understandably, agriculture has remained the bedrock of the rural household economies, especially among indigenous people. Many reasons could account for this. Firstly, it has been established that majority of households especially in developing countries live in rural areas and rely on agriculture for their livelihood (Akinlo, 2001). Also, their access to land (a major input in agricultural enterprises) through various forms of traditional land holdings and the potential of agriculture to readily meet their physical needs and to a lesser extent cash needs may have sustained their dependence on agriculture.

It is obvious that agriculture provides increased on-farm and off-farm employment opportunities capable of raising incomes of the households and their purchasing power. In this vein, (World Bank, 2006) noted that increased growth of the agriculture sector offers direct benefits to rural households such as income and food, contributes to broader food security objectives and help to establish forward linkages with high value-addition industries as well as linkages between rural and urban centres. Furthermore, agricultural activities which embrace crop and livestock farming have strong linkages with non-agricultural and/or off-farm livelihood activities which are common among rural households. Non-agricultural activities which may include hire-labour, fabrication of tools, repair services, handicrafts, tailoring, trading, masonry, carpentry, welding, blacksmithing and arts apart from serving as stop-gaps, have helped to service rural agricultural sector while providing the needed income to meet household needs simultaneously. The capacity to diversify or combine the above activities varies markedly among individual members of a particular household and across households in a given community. While some depend on farming, others depend on non-farming but some depend on a combination of agricultural and non-agricultural livelihood activities. However, the benefits accruing from the dependency on agricultural and non-agricultural livelihood strategies by a particular household cannot be over-emphasized. Working in different activities has helped to spread risks and manage uncertainties especially when such activities engaged in do not rely on the same resources. To many other households, diverse livelihood strategies serve as a measure to cope with insufficiency arising from shortcomings and failures in a major livelihood means. Sometimes and often, when a favoured activity require working capital but the individual and household have no access to ready credit, they may likely undertake some other activities to generate cash to pay for the required inputs.

The technological breakthrough of modern age has helped in the diffusion of innovations, information, skills and experiences, which individual members of the households are exploiting to undertake new livelihood activities. This is placing increasing demand for improved socio-demographic characteristics of household members to adapt to changing livelihood strategies. Consequently, participation patterns are readily apparent and spreading among household members (male, female, adults, youths and even children) with far-reaching implications. As more and more household members engage in productive activities, the male household-head's dominant role as family income earner is fast eroding. Rural women including youths and children are also earning cash through varied livelihood strategies (Agumagu et al., 2006; Mathews-Njoku and Adesope, 2007; Adesope, Agumagu and Nwaogwugwu, 2007) leading to out-migration of household members while cracks are beginning to show in many rural Nigerian family structures. Besides, signs of social dysfunctions associated with urban areas are surfacing among rural households while child labour has reached an alarming proportion. Furthermore, internal patriarchal authority within rural households and community leaderships are challenged and questioned by youths and women. Despite the foregoing culture-bound anomalies, men and household heads accept their wives, daughters and sons income-generating activities outside the home. This perhaps, might be due to certain underlying and changing socio-demographic variables that require critical inquiry. Against this background, this study examines the socio-demographic characteristics associated with livelihood strategies of rural households in Southeast Nigeria.

Methodology

The study was conducted in southeast Nigeria, situated east of River Niger. The population of the study comprised of 754,702 rural household heads generated with the help of key informants in the study area.

The sample size was selected from the population using a 5-stage random sampling technique. It involved the random selection of 3 States out of the 5 States in southeast Nigeria; 3 zones; 6 local government areas; 18 communities and 10 household heads from each of the selected communities. This exercise gave a sample size of 180 respondents. Data were collected with the aid of an interview schedule which was structured and validated by the researcher. The responses were measured on a 4-point likert-type summated rating scale of agreement (strongly agree, agree, disagree and strongly disagree). The values of the scale (4, 3, 2 and1) were summed up to obtain 10. The mean value of the sum gave 2.50, which served as the cut-off mean. This became the benchmark for accepting any item as livelihood strategy in the study area. Data analysis was carried out using descriptive and inferential statistical tools namely: frequency, percentage mean and multiple regressions.

Model Specification

The implicit form of the multiple regression models is specified as:

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, e)$

Where Y = Livelihood strategies (measured on a likert-type four point summated rating scale of agreement), strongly-agree = 4, agree = 3, disagree = 2 and strongly disagree = 1.

$X_1 = _{sex}$ measured using a nominal scale in terms of male = 1 and female = 2.

X_2 = age of respondents in number years.

X_3 = marital status measured using nominal scale in terms of single = 1, married = 2, etc.

X_4 = household size as number of persons in the household.

X_5 = household composition using nominal scale in terms of couple only = 1, couple and children only = 2, couple and children and extended family = 3.

X_6 = educational level in years of attending formal education.

X_7 = major occupation measured using nominal scale in terms of agriculture = 1 and non-agriculture = 2.

X_8 = farm size in hectares.

e = error term

Results and Discussion

Socio-demographic Characteristics of the Respondents.

The distribution of rural households in the study area based on the sex of the household-head is presented on Table 1. The result revealed that 54.43 % are male while 45.47 % are female. The implication is that male-headed households are in the majority thus corroborating previous studies, which indicate that male-headed households are in the majority (Ajala and Oyesola, 2007). But in this finding, there is a narrowing gap in percentage of male and female headed households in the study area. The trend could be as a result of increasing number of female household-heads who are likely single, widowed or divorced or those whose husbands have migrated to other towns or cities in search of better livelihoods. This trend is likely to impose serious implications on patterns of livelihoods in such households. It was also found that household-heads within the age groups of 51–65 years and 35-50 years accounted for about 41.73% and 39.34% respectively. The two age categories are associated with established, renowned, experienced and active individuals with network of livelihoods to which their households are identified with. Furthermore, an overwhelming majority (97.77%) are married. The result has critical livelihood survival implications. As singles get married , their new status seem to confer on them a sense of responsibility, cast an aura of maturity tantamount to a quest for more and sustainable livelihood strategies to meet their expected and increasing household needs. If earlier unemployed, they might be obliged to either render supportive services to their spouse's livelihood pursuit or are assisted to secure new ones. This is because in the Nigerian context, married people are cumbered with added responsibilities for the extended family from time to time. This therefore demands that the household has meaningful and reliable income generating activities. The result also revealed that household sizes of 4-6 persons and 7-9 persons accounted for 32.23% and 29.43% respectively. The implication is that majority of the households are relatively large. This finding is in accordance with previous studies that revealed that the average rural household in Nigeria is large (Imbur, Agwu and Akinnagbe, 2008). Such a large household size could be useful in

providing the manpower needs to support a combination of livelihood strategies. In terms of ties and relationships that exist in the household, result indicate that majority (61.67%) of the households across the study area are composed of couple + children + extended family. This result is in accordance with (Ekwe and Nwachukwu, 2006) and underscores the strong ties associated with the culture in Nigerian family system where parents, children and other relations dwell together as household and supporting varied livelihood strategies for survival. On educational level, in terms of years of education, it was found that the bulk of the respondents 33.90% and about 30.53% in the study area have secondary and primary education respectively. The above result substantiates the practice in the study area in which individuals veer into livelihood pursuits immediately after primary or secondary school education. In any case, literacy level of household-heads is an important variable that influence an individual to comprehend certain knowledge, attitudes and skills necessary to boost their livelihood base. Besides, it enhances awareness and access to information vital for livelihood support. The distribution of households based on their major occupation showed that 77.23% are engaged agriculture. The above result is in line with previous studies which revealed agriculture as the major occupation of households in rural communities in Nigeria (Alimi, Ayanwale and Bamire, 2001; World Bank, 2006). On farm sizes, the result showed that a large proportion of households in the study area (51.67%) subsist on farm sizes of 1 plot of land (0.25 hectare). This finding is in consonance with previous studies that showed most rural households subsisting on small farm sizes (Ekwe and Nwachukwu, 2006; Awoniyi, 2008). This finding could be as a result of over dependence on communal and family land, whose uneconomic sizes due to partitioning among family members cannot support meaningful livelihood.

Table 1: Socio-demographic Characteristics of the Respondents.

Variables	Frequency	Percentage
Gender		
Male	98	54.43
Female	82	45.57
Age Categories		
35-50 years	71	39.34
51-65 years	75	41.73
66-80 years	25	13.93
81years and above	9	5.00
Marital Status		
Single	4	2.23
Married	176	97.77
Divorced	0	0.00
Separated	0	0.00
Household Size 2-3 persons 4-6 persons 7-9 persons >9 persons Household Composition Couple only Couple and children Couple+children+extended family Years of Formal Educational	 19 58 53 50 5 64 111	 10.53 32.23 29.43 27.81 2.80 35.53 61.67
No Formal Education	32	17.79
1-6 years	55	30.52
7-12 years	61	33.90
13 years and above	32	17.79
Occupation		
Non-agriculture	41	22.77
Agriculture	139	77.23

Farm Size		
0.0045 hectare	93	51.67
0.009-0.0135 hectare	59	32.77
0.018 - 0.0225 hectare	14	7.77
0.027 – 0.0315 hectare	11	6.13
0.036 hectare	3	1.66

Livelihood Strategies adopted by Rural Households in the study Area.

Results on Table 2 are the livelihood strategies engaged by household members in the study area. As indicated on Table 2, crop farming (mean = 3.47), trading (mean = 3.13), livestock rearing (mean =3.13), farm labour (mean =2.84), processing of farm produce (mean =2.82), agricultural products marketing (mean =2.81), remittance from relatives (mean =2.70), civil service (mean =2.58), tailoring and weaving (mean =2.53), are the significant livelihood strategies engaged by rural households in the study area. It does not imply that the other livelihood activities surveyed are not engaged in by the households, but they are not predominant to be accepted as significant. The above findings corroborate with previous studies that found diverse livelihood patterns among rural households in Nigeria (Matthews-Njoku and Nwaogwugwu, 2014; Nwaogwugwu and Matthews-Njoku, 2015) Households in the study area engage in a combination of livelihood strategies to serve as complement in case of limited returns from a major livelihood.

Table 2: Livelihood Strategies adopted by Rural Households in the study Area.

Variables	Mean	Remark
Crop farming	3.47	Accept
Petty trading	3.13	Accept
Livestock rearing	3.13	Accept
Farm labour	2.84	Accept
Processing of farm produce	2.82	Accept
Agricultural products marketing	2.81	Accept
Remittance from relatives	2.70	Accept
Civil service	2.58	Accept
Tailoring and weaving	2.53	Accept
Saloon operators	2.48	Reject
Transport services	2.33	Reject
Gathering and selling of forest products e.g. fuel wood	2.32	Reject
Food vending	2.26	Reject
Building/masonry	2.24	Reject
Music/entertainment	2.07	Reject
Carpentry and furniture making	2.06	Reject
Fish farming	1.75	Reject
Bee keeping	1.42	Reject

Note: Any mean score <2.50 imply disagreement with any of the items; any mean score $\geq$ 2.50 imply agreement with any of the items.

Relationship between Socio-demographic Characteristics and livelihood Strategies of Rural Households in the study Area

The result on the relationship between socio-demographic characteristics and livelihood strategies of rural households is presented on Table 3. From the result, the exponential log function was chosen as the model of best fit with regards to the value of the coefficient of multiple determinations (R^2) and the signs and magnitude of the regression coefficients and conforms to a priori expectations. With a coefficient of multiple determinations (R^2) of 0.579, the result indicates that about 57.9% of the livelihood strategies of rural households in the study area are determined by a combined action of the socio-demographic characteristics of households investigated. From Table 3, household size (t = 4.032) (x_4) had a positive and high significant relationship with livelihood strategies of households in the study area at 0.01 level of

significance. This implies that as household increases with economically active members, livelihood activities also increase. This finding may have been the thesis encouraging large household sizes especially among rural dwellers over the years. In most households in the area of study, larger households appear to have better chances and long term benefits of supporting varied and a combination of livelihood activities than smaller households. This finds expression in view of various services and contributions rendered by each and every household member to the household livelihood activities. Although previous studies have established that large household size generate a high dependency ratio and places great pressure on available resources (Aluko, 2001; Ogwumike, 2001), however the tendency to draw immediate labour cost-free and muster needed support for livelihood pursuits may likely depend on the availability of economically active individuals in a household. This therefore cushions the dependency ratio and the attendant pressure on available resources which obtains on a short-run. It further indicates that households with more members invariably have more mouths to feed. In order to enhance household food security and other livelihood needs, the household adopt more livelihood strategies. Similarly, occupation (x_7) showed a positive and high significant relationship with livelihood strategies of households in the study area at 0.01 level of significance (t = 2.756). This implies that as occupational orientations and skills of household members increase and diversify the more livelihood strategies they tend to adopt. This finding is further expressed in view of the fact that households in the study area are not limited to a single livelihood strategy.

Furthermore, result showed that age (x_2) has a negative but significant relationship with livelihood strategies of households in the study area at 0.1 level of significance (t = -1.768). This therefore implies that level of engagement in livelihood survival strategies decreases with increase in the age of household members. This means that the younger but matured and economically active the household members are, the more they tend to participate in varied livelihood strategies more than older household members. This finding has relevance in view of productivity and active years of individuals since old age is associated with retirement from active labour, decreasing strength and vitality for livelihood strategies. In the same vein, farm size (x_7) showed a negative but statistically significant relationship with livelihood strategies of rural households at 0.05 level of significance (t = -2.404). This negative relationship implies that with smaller and decreasing farm size, households will spend less time to complete their farming activities, thus predisposing them to engage in non-farm livelihood strategies. Alternatively, with increasing farm size greater time and attention is given by households to farming activities. This finding is upheld in (AGREN, 2004) that households with adequate land earn an acceptable income from farming while a household whose land is insufficient to support farming, non-farm activities becomes an increasingly attractive target. Therefore, the hypothesis that there is no significant relationship between socio-demographic characteristics and livelihood strategies of rural household in southeast Nigeria is rejected with respect to the significant variables of age (x_2), household size (x_4), occupation (x_7) and farm size (x_8) and accepted with respect to the non-significant variables.

Table 3: Multiple Regression Results on the Relationship between Socio-demographic Characteristics and livelihood Strategies of Rural Households in Southeast Nigeria.

Variables	Exponential log	Double log	Semi log	Linear log
Constant	3.458 (14.121)	4.505 (11.480)	78.416 (4.277)	31.538 (2.771)
Sex (x_1)	0.043 (1.294)	0.068 (1.442)	3.024(1.366)	1.941 (1.247)
Age (x_2)	-0.002(-1.768)***	-0.144(-.934)***	-6.898(-1.982)*	-0.115(-.900)***
Marital Status (x_3)	0.125 (1.316)	.156 (1.156)	7.462(1.185)	5.867 (1.334)
Household size (x_4)	0.072 (4.032) **	0.192 (4.744) **	8.359 (4.413) **	3.191 (3.849) **
Household composition (x_5)	0.029(0.985)	0.033(0.523)	2.669(0.895)	1.705(1.235)
Education level (x_6)	-0.001 (-0.283)	-.007 (-0.399)	-0.506(-0.585)	0.099(0.584)
Occupation (x_7)	0.100(2.756) **	0.147 (2.880) **	5.372(2.258) *	3.533(2.103) *
Farm size(x_8)	-0.027(-2.404)*	-0.226 (-2.340)*	-9.842(-2.181)*	-1.174(-2.268)*

R^2	0.579	0.553	0.533	0.486
F- Value	6.857	7.736	6.803	6.235

Note: figures in parentheses are t- values
*Significant at 0.05 level, **Significant at 0.01 level,*** Significant at 0.1 level.

Conclusion

Based on the findings of the study, it is concluded that rural households across the study area adopt a combination of livelihood strategies that cut across agricultural and non-agricultural activities. Significant relationship was found to exist between socio-demographic variables of age, household size, occupation and farm size of households and the livelihood strategies in the study area.

Recommendation

Based on the findings of the study, the following recommendations are made:

- Target group-oriented agricultural technology/innovation, input development and distribution should be mounted through agricultural extension service centres in various rural communities because for now and in the foreseeable future farming will remain a key livelihood activity in rural Nigeria as revealed in the study.
- Efforts should be intensified and sustained on human capacity development targeted on rural households; acquisition of occupational skills should be emphasized since the study revealed that household size has a significant relationship with livelihood strategies among rural households.

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