# NEXUS OF NON-FARM ENTERPRISES AND RURAL HOUSEHOLDS LIVELIHOOD: EVIDENCE FROM NIGERIA

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**Abstract:** *Agricultural sector in Nigeria is faced with diverse challenges that threaten the survival of rural households who constitute a significant proportion of the country's population, thereby forcing them to diversify into alternative occupations outside farming. This study assessed the contributions of non-farm enterprises to livelihood of rural households in Osun State, Nigeria. The quantitative data were elicited from120 rural households' heads across the state. The data collected analysis appropriate statistics. Results revealed that majority of rural households were involved in multiple non-farm enterprises and provide full-time employment for majority. Many were favourably disposed to contribution of non-farm enterprises to their households' livelihood. Majority indicated that non-farm enterprises contributed moderately to their households' livelihood. Income from non-farm enterprises, association membership and age were significantly correlated with the contribution of non-farm enterprises to rural households' livelihood. It was concluded that non-farm enterprises play significant roles in sustaining the livelihood of rural households in the study area.*

***Keywords:*** *Socio-economic characteristics, livelihood, non-farm enterprises, households' assets, Nigeria*
(JEL code: Q16, 19)

## INTRODUCTION

The World Bank estimated the rural population of Nigeria to be 99, 033, 580 as at the year 2020 representing about half (48.04%) of the total population FAO (2017) identified Nigeria among the countries of the world where the extremely poor people are found, mostly rural dwellers who earn meagre income from agriculture, fisheries and forestry. OVWIGHO (2014) observed that, due to the seasonal nature of primary agriculture and other production constraints, rural households have diversified into different non-farm enterprises to argument their income. ELLIS (2000) also established the diversification of rural household skills and labour into other sources of income outside farming. The various income generating activities in which rural households are engaged are refer to non-farm enterprises are used in this study as all income-generating activities excluding income generated directly from traditional farming, as defined by NAGLER AND NAUDÉ (2014). Mining, agro-processing, utilities, construction, commerce, and financial services are among these non-farm enterprises (HAGGBLADE et al.., 2010).

GORDON AND CRAIG (2001) cited in ABBOTT et al.(2012) refers the term "non-farm" to designate activities other than primary agriculture, forestry, or fisheries, such as trading and agricultural product processing, even when done on the farm. To put it another way, they refer to all economic activity in rural areas, with the exception of basic agriculture. These include processing, marketing, manufacturing and wage employment within the local communities (IGWE, 2013; AGBAREVO and NMEREGINI, 2019). Others include operating restaurant/beer parlour, barbing saloon, teaching, clergy, craft making, tie and dye, textile and soap making (OBINNA, 2014). MISHRA AND SINHA (2019) also reiterated that non-farm activities cover ventures like handicrafts, household and non-household small-scale manufacturing, construction, mining, quarrying, repair, transport and community services undertaken in rural areas. Studies have shown that 42% of rural households in the world operates on non-farm activities (NAGLAR and NAUDE, 2017). AYAMBILA et al. (2017) also reported that non-farm sources account for 40-45% of average rural household income in Sub-Saharan Africa and Latin America and 30-40% in South Asia while in Nigeria, the share

of non-farm income to total household income stood at 70.8%. Non-farm enterprises have become a crucial component of rural households' livelihood strategies for various reasons (AGBAREVO AND NMEREGINI, 2019). For instance, it has been observed that this sector has a great capacity for increasing rural employment, improving income distribution, contributing to economic growth, and alleviating poverty (NISHAD AND TANJILA, 2015). They also enhance the purchasing ability of participating rural households in terms of procurement of food and other necessary consumer goods, house building and repair, payment for medical and health care services, payment of wards/children's education and enhancement of agricultural production activities (JABO et al.., 2014). According to Davis, DIGUISEPPE, and ZEZZA (2014), 44 percent of rural African households participate in the non-farm sector, with self-employment accounting for 15% of household income on the average.

CHAMBERS and CONWAY (1992) cited in WANG (2018) defined livelihood as the capabilities, assets and activities required for a means of living. WANG (2018) also defined the concept as the means by which people secure a living, which includes their capabilities and activities, as well as their tangible and intangible assets. Household's livelihood therefore, refers to the means by which household secures basic necessities of life like food, water, medicine, shelter and clothing (AKVOPEDIA, 2016; MPHANDE, 2016). With the inconsistent nature of the employment growth of the farm sector, non-farm activities become important avenue for sustainable livelihood of smallholder farmers in the rural households by providing them employment opportunities and preventing rural-urban migration resulting from lack of employment opportunities. Research have also shown that households that combine non-farm activities are generally better off than those that rely solely on subsistence agriculture (ABBOTT et al.., 2012). ADEPOJU and OBAYELU (2013) observed that the agricultural sector in Nigeria is plagued with several constraints such as soil infertility, inadequate infrastructural facilities, risk and uncertainty as well as seasonal operation among others. These problems have negative implications on the welfare of rural households and serve as threats to their livelihood and survival, hence, they are forced to develop coping strategies such as diversification into non-farm activities in a way to mitigate the vulnerability associated with agricultural production.

Although, non-farm enterprises in Nigeria are in form of small and informal businesses (NAGLAR and NAUDE, 2014), with 95 percent of them employing less than five workers; According to BABATUNDE and QUAIM (2009), majority of rural households in Nigeria have diversified their income sources, with farming accounting for only 50% of total household income while the remaining come from other non-farm activities. ADEPOJU and OBAYELU (2013) also noted that, despite various policy reforms, the rising incidence of low levels of rural household welfare in Nigeria emphasizes the need for a better understanding of the problem as well as providing solutions through approaches that could enhance the means by which rural households can maintain their livelihood through income diversification. To formulating potent agricultural and rural development policies, it is very important to understand the extent to which non-farm enterprises are contributing to rural households' livelihood. It was against this background that this study seeks to investigate the specific contributions of non-farm enterprises to the livelihood of rural households in Osun State, Nigeria. The specific objectives were to

i. describe the socio-economic characteristics of the respondents;
ii. identify the non-farm enterprises in which they were involved;
iii. examine the reasons for engaging in non-farm enterprises, the form and nature of involvement;
iv. examine the respondent's perception towards non-farm enterprises; and
v. determine the level at which non-farm enterprises contribute to the livelihood of respondents.

The hypothesis for this study was stated in null form: There is no significant relationship between the socio-economic characteristics of respondents and contributions of non-farm enterprises to rural households' livelihood.

## METHODOLOGY

The study was conducted in Osun State, Nigeria. The state lies within latitude 7° 30′ 0″ N and longitude 4° 30′ 0″ E (State of Osun Official Website, 2022). The respondents for this study were chosen using a multistage sampling procedure. Osun State has 3 agricultural zones namely: Ife-Ijesha, Osogbo and Iwo zones. At the first stage, two LGAs were randomly selected from each zone making a total of 6 LGAs namely; Irewole and Aiyedaade from Iwo zones, Ilesa East and Ife North from Ife-Ijesa zone as well as Ede South and Ifelodun from Osogbo zone. At the second stage, two rural communities were selected from each of the selected LGAs, making a total of twelve communities. The next stage involved proportionate sampling of 120 households from the selected communities while at the last stage, the household head for every selected household was chosen for interview making a total of 120 respondents. Duly validated and pretested structured interview schedule was used to elicit information from the respondents. Data were processed using Statistical Package for Social Sciences (SPSS) version 23. Descriptive statistics such as frequency counts, percentages, means and standard deviation were used while chi-square and correlation analyses were used to draw inferences.

The study investigated the personal and socio-economic characteristics of the household heads to test whether there is significant relationship between this and the contributions of non-farm enterprises to rural households' livelihood or not. The contribution of non-farm enterprises to livelihood of rural households was measured using a five-point Likert like scale of contribution to the households' capital, human, natural, physical and social assets (4 = very much, 3 = much, 2 = little, 1= very little points, 0 = not at all). The contribution score of each respondent was calculated by adding all scores from the five indicators (physical=48 points, social=24 points, human=24 points, natural=12 points and capital=24

points). The obtainable maximum and minimum scores were 132 and zero respectively. Equal interval method was used to categorise respondents into high, medium and low levels. This was calculated by finding the range between the minimum and maximum scores and divides it by 3, that is, respondents with contribution scores below 44 were ranked as low, and those with scores between 44 and 88 were ranked as moderate while those with scores above 88 were ranked as high. The perception of respondents towards non-farm enterprises was measured using a five-point Likert scale (5= strongly agreed, 4= agreed, 3= undecided, 2= disagreed, 1= strongly disagreed for the positive statement and vice versa for the negative statements). The mean perception score was used to categorise respondents' perception to favourable and unfavourable.

## RESULTS AND DISCUSSIONS

### *Socio-economic Characteristics of the Respondents*

Results as present in Table 1 reveal that the mean age of the respondents was 43 ± 12.6 years, indicating that respondents were in their active age during which they would be willing to engage in diversified economic activities to enhance their households' livelihood (ALABI et al., 2020). This is similar to the findings of AMOGNE et al. (2017) who reported that the mean age of participants of non-farm activities in North central Ethiopia was 45 years. Almost two–third (60.8%) of the respondents were male while 39.2% were female, which implies that more males than females were sampled for the study. This distribution agrees with the report of JONASSON (2005) that households headed by men usually get more involved in different activities including the non-farm enterprises. Majority (85.0%) of the respondents were married and 10.8% were single parents. This implies that the majority of the respondents could employ family labour to run their enterprises. This disagrees with the findings of DARY and KUNNIBE (2012) who reported that singles, divorce and widowed were more likely to be involved in non-farm enterprises. The mean household size was 6 ± 3 persons, indicating moderate household size. An increase in household size would push individuals to diversify into different non-farm enterprises. These findings agree with NAGLAR and NAUDE (2014) who identified household size as one of the possible reasons which push people into non-farm enterprises. Results further shows that the mean year of schooling was 11.4 ± 4.1 years, indicating low literacy level. This could have serious implications on their enterprises' performance and their attitude towards adoption of innovations that could enhance their non-farm enterprises. DARY and KUNIBE (2012); JANVRY and SADOULET (2001), provided evidence from Ghana that education increases the livelihood activities of people who engage in rural non-farm enterprises and the use of modern technologies. Above half (56.7%) of the respondents were indigenes while 43.3 percent were not. Indigenes stand better opportunity of having access to some limited resources (such as land) than the non-indigenes.

The results show further that the mean total annual income of the respondents from all occupations was 496,600 ± 380,267 NGN (N) translating to about N41,000 (approximately 99 USD at 415 NGN to 1 USD) monthly while the mean annual income from non-farm enterprises was N 378,366:67 ± N234,843.91 translating to approximately N 32,000 (77 USD) per month. This is higher than the Nigerian national minimum wage of N 30,000 (72USD). Comparing the mean income from all occupations (N496,600.00) and income from non-farm enterprises (N378,366.70), it shows that non-farm enterprises contributed about 76% to the total income of respondents and consequently, contributed greatly to their livelihood. This finding agrees with that of JANVRY and SADOULET (2001) who reported that contribution of non-farm enterprises among participants in terms of income generation is high. Majority (88.3%) of the respondents belonged to one association or the other. The fact that respondents belonged to associations could enhance their accessibility to relevant information that could improve their enterprise performance. This is in line with the findings of DARY and KUNNIBE (2012) who established that membership of association enables access to credits and relevant information. The mean years of experience of the respondents in non-farm enterprises was 13 ± 9 years. This shows that they had enough experience in their respective enterprises. This is in line with the observation of OBIANNA (2014) who asserted that prolong engagement in business enterprises increases knowledge and technical know-how of the business.

**Table 1: Distribution of respondents by their socio-economic characteristics**

| Variables | Frequency | Percentage | Mean | S.D |
|---|---|---|---|---|
| **Age (years)** | | | | |
| ≤ 40 | 56 | 46.6 | 43.0 | 12.6 |
| 41-55 | 41 | 34.2 | | |
| 56 and above | 23 | 19.2 | | |
| **Sex** | | | | |
| Male | 73 | 60.8 | | |
| Female | 47 | 39.2 | | |
| **Marital status** | | | | |
| Single parents | 13 | 10.8 | | |
| Married | 102 | 85.0 | | |
| Widowed | 5 | 4.2 | | |
| **Household size** | | | | |
| ≤ 5 | 39 | 32.5 | 6 | 3 |
| 6 – 10 | 73 | 60.8 | | |
| 11 – 15 | 8 | 6.7 | | |
| **Years of schooling** | | | | |
| None | 7 | 5.8 | 11 | 4 |
| 1-6 | 10 | 8.4 | | |

| | | | | |
|---|---|---|---|---|
| 7-12 | 81 | 67.5 | | |
| 13 and above | 22 | 18.3 | | |
| **Indigenous status** | | | | |
| No | 52 | 43.3 | | |
| Yes | 68 | 56.7 | | |
| **Annual income from all occupations** | | | | |
| ≤ N 200,000 | 23 | 19.2 | N 496,600 | N 380,267 |
| N 200,001 – 450,000 | 42 | 35.0 | | |
| N 450,001 -700,000 | 32 | 28.3 | | |
| **Annual income from non-farm enterprises** | | | | |
| ≤ N 200,000 | 25 | 20.8 | N 378,366.7 | N 4,843.9 |
| N200,001-450,000 | 67 | 55.8 | | |
| N 450,001 – 700,000 | 17 | 14.2 | | |
| N 700,001 + | 11 | 9.2 | | |
| **Association membership** | | | | |
| No | 14 | 11.7 | | |
| Yes | 106 | 88.3 | | |
| **Years of experience** | | | | |
| ≤ 5 | 28 | 23.8 | 13.0 | 9.0 |
| 6-15 | 61 | 50.8 | | |
| 16-25 | 19 | 15.8 | | |
| 26-35 | 10 | 8.3 | | |
| 36 and above | 2 | 1.7 | | |

*Source: Field survey, 2020*

## *Types of Non-farm Enterprises*

Results in Table 2 show that respondents indicated that their households engaged in both traditional and non-traditional non-farm enterprises to sustain their livelihood. Trading (55%) take the lead followed by agro-processing (45.8%), casual wage labour (28.5%), fashion designing (7.5%), motorbike transport service (6.7%), mechanical/electrical work (6.7%), bricklaying (6.7%), car/bus transport service (5.8%), civil service (5%), hairdressing/barbing (5%), cloth weaving (5%), carpentry (5%) among others. The result shows further that rural households in the study area engaged in multiple non-farm enterprises. This concurs with the finding of ALABI et al. (2017), MICHAEL et al. (2016) and HAGGBLADE et al. (2010) who identified bricklaying, hairdressing, agro-processing, and cloth designing as common non-farm income generating enterprises among the rural households and MULAT et al. (2021) who identified petty trading as the most prominent non-farm livelihood activity of rural household.

**Table 2: Distribution of respondents by types of non-farm enterprises**

| Non-farm enterprises | Frequency | Percentage |
|---|---|---|
| Petty trading (traditional) | 66 | 55.0 |
| Agro processing (traditional) | 55 | 45.8 |
| Farm labour (traditional) | 31 | 28.5 |
| Fashion designing (non-traditional) | 9 | 7.5 |
| Motorbike riding (non-traditional) | 8 | 6.7 |
| Mechanic/Electrician (non-traditional) | 8 | 6.7 |
| Modern bricklaying (non-traditional) | 7 | 5.8 |
| Car/bus transport service (non-traditional) | 7 | 5.8 |
| Civil service (non-traditional) | 7 | 5.8 |
| Modern hairdressing/barbing (non-traditional) | 6 | 5.0 |
| Cloth weaving (traditional) | 6 | 5.0 |
| Carpentry (non-traditional) | 6 | 5.0 |
| Event planning (non-traditional) | 5 | 4.2 |
| Traditional herbal practice (traditional) | 4 | 3.3 |
| Plumbing/metal work (non-traditional) | 4 | 3.3 |
| Blacksmithing (traditional) | 4 | 3.3 |
| Shoemaking (non-traditional) | 3 | 2.5 |
| Chemist shop (non-traditional) | 3 | 2.5 |
| Grinding mill operation (non-traditional) | 2 | 1.7 |
| Hunting (traditional) | 1 | 0.8 |
| Pottery (traditional) | 1 | 0.8 |

*Source: Field survey, 2020*

## *Reasons for Engaging, Forms and Nature of Involvement in Non-farm Enterprises*

Results in Table 3 show that respondents engaged in the non-farm enterprises for multiple reasons such as: for increase in livelihood assets (94.2%), for self-employment generation (92.5%), to augment household's income during agriculture off season (27.5%), for personal interest in the enterprise (25.8%), for income diversification (20.8%) and to retain the family business heritage (13.3%). The implication of the finding is that major reasons why households in the study area venture into non-farm enterprises are for employment generation and to increase their livelihood asset. The finding is in line with KAZUNGU and GUUROH (2014) who identified income and employment

generation as the importance of non-farm enterprises in rural communities. It also collaborates the findings of GORDON and CRAIG (2001) who established that non-farm enterprises help to eliminate rural under-employment and reduce rural-urban migration. The results show further that majority (91.7%) were involved in the non-farm enterprises as full-time business while only few (8.3%) were involved in them as part-time business. This implies that non-farm enterprises were providing full time employment for rural households in the study area. Result in Table 3 also reveal that majority (87.5%) of the respondents were self-employed in the various non-farm enterprises, 5 percent were employers who hired employees in operating their enterprises, 4.2 percent were involved as apprentices learning the enterprises while 3.3 percent were employees working for the original owners of the enterprises. This is an indication that non-farm enterprises provide self-employment for majority of the rural households in the study area.

**Table 3: Distribution of respondents by their reasons for involvement, nature of involvement and form of involvement in non-farm enterprises**

| Variables | Frequency | Percentage |
|---|---|---|
| ***Reasons for engaging in non-farm enterprises** | | |
| For self -employment | 111 | 92.5 |
| Augment income during agriculture off season | 33 | 27.5 |
| Interest in the enterprise | 31 | 25.8 |
| Income diversification | 25 | 20.8 |
| To retain family business heritage | 16 | 13.3 |
| **Nature of involvement** | | |
| Full time | 110 | 91.7 |
| Part time | 10 | 8.3 |
| **Form of involvement** | | |
| Apprentice | 5 | 4.2 |
| Self employed | 105 | 87.5 |
| Employer | 6 | 5 |
| Employee | 4 | 3.3 |

** multiple responses*
*Source: Field survey, 2020*

## *Perception of Respondents towards Non-farm Enterprises*

Based on the scale of measurement, results in Table 4 show that respondents agreed with the positive perception statements that non-farm enterprises provide employment for people (mean= 3.8), non-farm enterprises help to generate income (mean = 3.7), non-farm enterprises are done by both genders (mean = 3.6), non-farm enterprises help in increasing livelihood assets (mean = 3.6) and non-farm enterprises are means to self-employment (mean = 3.5). They were indifferent to the statements that non-farm enterprises enhance community development (mean= 3.0), non-farm enterprises have less vulnerability (mean = 2.9), non-farm enterprises devalue society culture and norms (2.7), non-farm enterprises are for lazy and weak people (2.6) and non-farm enterprises cause food insecurity (2.5). They agreed to the negative statements that non-farm enterprises cause environmental pollution (2.4), non-farm enterprises are capital intensive (2.3) and non-farm enterprises encroach agriculture (2.1) while they disagreed to the positive statement that non-farm enterprises require full attention (2.3). The findings further strengthened the fact that non-farm enterprises are panacea to solving the problem of unemployment and inadequate income generation prevailing in the rural areas. Further analysis was done to categorise the respondents' perception scores to favourable and unfavourable perception. Results in Table 5 show that more than half (55%) of the respondents had favourable perception towards non-farm enterprises while 45 percent had unfavourable perception. The fact that the higher proportion of the respondents indicated favourable perception implies that there is high potential for non-farm enterprises to contribute significantly to rural household livelihood if they are well developed by relevant institutions.

**Table 4: Distribution of respondents by their perception towards non-farm enterprises**

| Perception statements | Ranked Mean |
|---|---|
| Non-farm enterprises provide employment for people | 3.8 |
| Non-farm enterprises help to generate income | 3.7 |
| Non-farm enterprises are done by both gender | 3.6 |
| Non-farm enterprises help in increasing livelihood asset | 3.6 |
| Non-farm enterprises are means to self-employment | 3.5 |
| Non-farm enterprises enhance community development | 3.0 |
| Non-farm enterprises have less vulnerability | 2.9 |
| Non-farm enterprises devalue society culture and norms | 2.7 |
| Non-farm enterprises are for lazy and weak people | 2.6 |
| Non-farm enterprises cause food insecurity | 2.5 |
| Non-farm enterprises cause pollution into the environment | 2.4 |
| Non-farm enterprises are capital intensive | 2.3 |
| Non-farm enterprises require full attention | 2.3 |
| Non-farm enterprises encroach agriculture | 2.1 |

*Scale of measurement: 5= strongly agreed, 4= agreed, 3= undecided, 2= disagreed, 1= strongly disagreed for the positive statements and vice versa for the negative statements*

**Table 5: Distribution of respondents by their perception toward non-farm enterprises**

| Perception score | Frequency | Percentage |
|---|---|---|
| Favourable >39.95 | 66 | 55 |
| Unfavourable ≤ 39.95 | 54 | 45 |

*Mean perception score = 39.95*
*Source: Field survey, 2020*

*Contributions of Non-farm Enterprises to Livelihood*

**Contributions of Non-farm Enterprises to Capital Assets**
Based on the scale of measurement, results in Table 6 show that non-farm enterprises contributed much to respondents' capital asset in form of cash at hand (mean = 3.1) but contributed little to credit saving (mean = 2.3), settling of debts (mean = 2.1), gift to others (mean = 2.0), community project donation (mean= 1.9) and access to loan/credit (mean = 1.8). The finding implies that income from non-farm activities help in reducing poverty among rural households. This agrees with the findings of NAUDE and NAGLAR (2014) that non-farm enterprises are important source of income for rural households.

**Contributions of Non-farm Enterprises to Human Assets**
Results in Table 6 show that non-farm enterprises contributed much to human assets in terms of provision of food (mean= 3.3), clothing (mean=2.9), health care (mean=2.2) and children education (mean=2.2) among others. This implies that non-farm enterprises are means of improving rural households' standard of living in agreement with ELLIS (2000).

**Contributions of Non-farm Enterprises to Natural Assets**
Contributions of non-farm enterprises to natural assets was also much in terms of access to well water (mean= 3.3), access to good land (mean = 2.8) and access to borehole water (mean = 2.2). This implies that non-farm enterprises contributed positively to rural households' natural assets in agreement with BARBIER and HOCHARD (2014) who submitted that non-farm enterprises contributed greatly to natural assets of those who participated in them.

**Contributions of Non-farm Enterprises to Social Assets**
As regards social assets, results in Table 5 reveal further that non-farm enterprises contributed much to the respondents' household interpersonal relationship (mean = 2.9), participation in ceremonies (mean = 2.6), membership rate of traveling (mean = 2.5) among others. This implies that contributions from non-farm enterprises have significantly contributed to building of strong social networks and cohesion among the rural households in the study area.

**Contributions of Non-farm Enterprises to Physical Assets**
Non-farm enterprises also contributed much to the physical assets in terms of purchase of mobile-phone (mean= 3.0), purchase of new utensils in the household (mean = 2.8), affordance of health care services (mean = 2.6), purchase of working implements (mean= 2.5) among others as presented in Table 7. The implication is that non-farm enterprises contributed positively to physical assets of rural households in the study area in agreement with ELLIS (2000).

The results in Table 7 show the overall contribution of non-farm enterprises to rural households' livelihood with the majority (87.5%) of the respondents indicating that non-farm enterprises contributed moderately to their households' livelihood while few (10.8%) and very few (1.7%) indicated high and low level of contributions respectively. This implies the potential of non-farm enterprises for optimum contribution to the livelihood of rural households if well developed.

**Table 6: Distribution by contributions of non-farm enterprises to rural households' livelihood**

| Assets | Ranked Mean |
|---|---|
| **Capital asset** | |
| Cash at hand | 3.1 |
| Credit saving | 2.3 |
| Debit saving | 2.1 |
| Gift to others | 2.0 |
| Community project donation | 1.9 |
| Access to loan/credit | 1.8 |
| **Human assets** | |
| Provision of food | 3.3 |
| Provision of clothing | 2.9 |
| Health care | 2.3 |
| Children | 2.3 |
| Education | |
| Skill acquisition | 1.4 |
| **Social assets** | |
| Interpersonal relationship with community | 2.9 |
| Participation in ceremonies | 2.6 |
| Association membership | 2.5 |
| Rate of travelling | 2.3 |
| Political participation | 1.2 |
| Social networking | 1.2 |
| **Natural asset** | |
| Access to well water | 3.3 |
| Access to good land | 2.8 |
| Access to bore water | 2.2 |
| **Physical asset** | |
| Purchase of telephone | 3.0 |
| Purchase of new utensil in household | 2.8 |
| Affordance of health care service | 2.6 |
| Purchase of non-farm implement | 2.5 |
| Building of personal house | 2.0 |
| Purchase of generator set | 2.0 |
| Ownership of landed properties | 1.8 |
| Purchase of new farm tool | 1.7 |
| Purchase of sprayers | 1.7 |
| Purchase of motorcycle machine | 1.6 |
| Purchase of personal car | 1.5 |
| Purchase of pumping machine | 1.0 |

*Scale of measurement: 4 = very much contribution, 3 = much contribution, 2 = little contribution, 1= very little contribution, 0 = no contribution*
*Source: Field survey, 2020*

### *Results of Pearson's Product Moment Correlation Analysis*

Results in Table 8 reveal that years spent in schooling by the household head (r = 0.24), income from non-farm enterprises (r = 0.59) and association membership (r =0.25) had positive and significant relationship with non-farm enterprises contributions to livelihood. This implies that the higher these significant variables, the higher the contribution of non-farm enterprises to the livelihood of rural households.

**Table 7: Distribution of respondents based on the overall level of contribution of non-farm enterprises to livelihood**

| Total asset | Frequency | Percentage |
|---|---|---|
| Low<br>≤ 44 | 2 | 1.7 |
| Moderate<br>45-88 | 105 | 87.5 |
| High<br>Above 88 | 13 | 10.8 |

*Source: Field survey, 2020*

**Table 8: Relationship between selected socio-economic characteristics and non-farm enterprise contribution**

| Variables | Correlation coefficient | $r^2$ | p-value |
|---|---|---|---|
| Age | 0.09 | 0.01 | 0.34 |
| Family size | 0.15 | 0.02 | 0.09 |
| Years spent in school | 0.24 | 0.06 | 0.08* |
| Income from non-farm | 0.06 | 0.04 | 0.00** |
| Association membership | 0.25 | 0.06 | 0.05* |

*** Correlation is significant at the 0.01 level,*
**Correlation is significant at the 0.05 level*
*Source: Field survey, 2020*

## CONCLUSION

Rural households in the study area engaged in multiple non-farm enterprises with trading and agro-processing taken the lead. Majority of the respondents had favourable perception towards non-farm of enterprises and indicated that they contributed moderately to their overall livelihood status. Also, income from non-farm enterprises, years of formal education and association membership were found to be significantly related to contribution of non-farm enterprises to livelihood to rural households. It is therefore, recommended that rural households should harness various non-farm enterprises available in their community while capacity building trainings and workshops on both traditional and non-traditional non-farm enterprises should be organised by relevant rural development agencies in order to enhance sustainable interest of rural households in these enterprises. Finally, institutional support services including provisions of credits and necessary infrastructure capable of enhancing non-farm enterprises should be put in place by the government at the grass root to develop various rural non-farm enterprises for sustainable rural livelihood.

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