

Petty Trading and Household Livelihood among Women in Akwanga Local Government Area of Nasarawa State

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Abstract

The main objective of the study was the determination of the impact of petty trading on household livelihood among women petty traders in Akwanga Local Government Area (LGA) of Nasarawa state. This was achieved through two specific objectives – to determine the contributions of women petty trading on household income, and its role in attaining household living standard. The study relied on the use of primary data, obtained from a random sample of 343 women owners of petty businesses in Akwanga. Data was collected through a questionnaire survey involving the administration of copies of a structured questionnaire with closed-ended items forming each variable scale. The collected data was used to estimate a structural model using the PLS-SEM statistical technique, to test the pertinent formulated hypothesis and evaluate variable relationships. The result obtained showed that women petty trading businesses had positive and significant effect on household income and living standard. in Akwanga. It was therefore, recommended that due to the importance of petty trading into our growing economy, government and non-governmental organization should encourage more women to go into trading by supporting them with adequate finances for development and women petty traders need to analyzed the kind of business they want to engage onto so as to reduce the magnitude of certain uncertainty in the future.

Keywords: Petty trading, Women business, Household livelihood, Income, Household living standard.

1.0 Introduction

The means by which women both in urban and rural area gain income to meet up with their physical basic needs is through economic activities such as petty commercial engagement. Such activity may involve farming and non-farming

activities, processing of raw food resources like gari, maize, yam or rice; marketing activities including trading or other microenterprises such as rental businesses. Over the years, it has become so important to empower women in households (Mosedale, 2015). Bisnath

and Elson (2013) asserted that empowering women has become a frequently cited goal of developmental intervention since 1970s when women empowerment was first invoked by the Third World feminist and women organizations, it was explicably used to frame and facilitate the struggle for social justice and women equality through a transformation of economic, social and political structures at national and international levels.

Small businesses constitute the cornerstone of any competitive economy and by far outnumber their larger counterparts, being far less capital intensive, and not requiring gigantic infrastructure for their operation (Hiproject, 2017). Petty trading falls into this category of economic activities, which, according to Daniel (2011), involves selling and buying of goods and services in small scale, ranging from agricultural produce to imported consumer goods. Petty trading constitutes a collection of individual sellers with small capital and buyers operating in a group of small available spaces within a given environment (Bedanie & Daniel, 2016). Petty trading has increasingly attracted attention as an important human activity in both urban and rural development processes (Daniel, 2011). It is a prevailing socioeconomic activity serving a multitude of the low-income population in developing countries (United Nation Habitat, 2009). Most people involved in petty trading do their business transactions in stalls, open space, road side and sometimes in make shift stores

in the majority communities in the society (Anyamba, 2016).

Petty trading is one of the major occupations of household women in Akwanga Local Government Area (LGA) of Nasarawa. These individuals operate within part of the informal sector that helps to provide goods and services at the right time, in the right place, in the right quantity and at reasonable price. They have become essential within the distribution system, catering to the needs of, particularly, the lower middle class and the poor. The livelihood of a large number of women is dependent on petty trading. In places such as Akwanga, this can range from businesses specializing in soup items, locally referred to as '*kerkishi*' in the Hausa language, to the sale of commodities exclusively in the formal trade sector known as '*yan kasuwa*' or '*mata kasuwa*' in Hausa. Such businesses can also involve the purchase of farm produce directly from farmers at a low price, and then selling later at higher prices. The petty trading sector provides jobs and offers fairly good remuneration to the unemployed.

Petty trading represents a crucial informal activity that employs large number of people across societies in the world. It is pointed out that petty trading hires large population in least developed countries including African countries as it accounts 62% of the informal employment (Mnyawi & Benedict, 2014). This level of business organization is a major source of income for majority of Africans (Natasja, 2014). Nigeria, petty trading in households seems to be a neglected sector despite the fact that it

provides more employment for women and better the livelihood of the households. It is for this reason that most of the petty trading activities in Akwanga have not been improved in their commercial activities. Women in general are dominant practitioners of petty trading activities. The population of women is 68.3 million (National Population Commission, 2006) constitutes almost half of the entire country's population, of 140 million, this numerical strength has not been translated to equal treatment in the society. Apart from numerical strength, women have great potential to evolve a new economic order, thereby helping in accelerating social and political development and consequently transforming the society into a better one.

Akwanga, with a substantial population of women-ran petty businesses is observably, in a situation where these businesses have remained perpetually small, operating in tiny spaces in roadsides and residential areas. This stimulates interest in empirically exploring the extent to which these businesses affect livelihoods of households. Given that petty trading remains the (only) viable means of legitimate employment for most women, especially those in the low-income category in Akwanga, the study will give specific indications of how household wellbeing is influenced by petty trading activity, in order to allow for informed pertinent decisions. Furthermore, despite the prevalence of petty trading as a significant economic activity, there is

an acute lack of comprehensive research investigating the specific effects of petty trading on women's livelihoods in Akwanga. The study was also focused on addressing this inadequacy. To achieve its aim, the following hypotheses were tested.

H₀₁: Petty trading participation by women does not have significant effect on household income in Akwanga Local Government Area of Nasarawa State.

H₀₂: Petty trading participation by women does not have significant effect on household standard of living in Akwanga Local Government Area of Nasarawa State.

2.0 Literature Review and Hypotheses Development

Concept of Petty Trading

Petty trading is as an economic activity that involves buying and selling of goods and services in small scale, either locally-produced or imported goods. Petty trading is a small scale and informal economic activity that generates minimal income as it requires a small amount of an individual's income to operate the enterprise (Hamat et al., 2014). It refers to the buying and selling of goods and services such as agricultural and consumer goods in smaller quantities (Mbisso, 2010). It is an economic activity that involves individuals with small financial base who struggle to eke out a living by growing their small businesses into bigger ventures (Agyeman, 2015). Those who engage in petty trading are known as petty traders.

Petty trading is a common routine kind of business for most women and less men in Africa and petty traders are found in semi-urban areas peddling garden produce and consumer goods imported from foreign countries (Buly & Tulu, 2016). This form of trade takes place in both local and urban areas of the African countries. Although men are equally engaged in petty trading, rural women are mostly found engaging in petty trading (Amrevurayire & Ojeh, 2016). This trading system enables the women to be self-employed and for food security of the households. Petty trading is one of the major occupations in the towns where women petty traders are its main constituents. Women petty traders in the towns informal sector help to provide goods and services to needy persons at the right time, in the right places, in the right quantities and at reasonable prices.

Petty trade is generally termed as an economic activity that involves selling and buying of goods and services in small scale, ranging from agricultural produce to imported consumer goods (Mbiso, 2010). Globally, petty trade is seen as the major contributor to the economic growth among individuals and the national level (Karavidic, 2013). The contribution of petty trade has been noted to significantly increase economic growth in the western developed countries.

The petty form of trading has contributed to the economic emancipation of the poor in Africa and had contributed to poverty alleviation of majority of the women in local

communities (Agyeman, 2015). In line with this, Buly and Tulu (2016) stated that it increases the economic viability of women. Similarly, Hamat et al. (2014) argued that although a small amount is required to kick-start a petty trade, it generates profit to guarantee growth and success. Conversely, Mnyawi and Benedict (2014) revealed in their study that the income realized through petty trading is inadequate to cater for the various needs of the petty trader despite the success stories recorded from petty trading.

Furthermore, women petty traders engage in food vending, sale of used clothes (second hand clothes), general merchandise and other trades (Mnyawi & Benedict, 2014). Petty trade participation by women has improved the availability of goods and services in smaller units, at the right places, right prices, right form, and at the right time (consumer product utilities) (Buly & Tulu, 2016). Women petty trading improves the health services needs of the traders, satisfies their food requirements, and settles their housing needs including settling utility bills such as water and electricity bills (Mnyawi & Benedict, 2014).

Petty trading is usually unaccounted for and unrecognized in national economic statistics in the country due to the nature of their operations. In the past, street trade was viewed as an underground activity that undermined the healthy functioning of the formal economy system of a nation or countries of the world. This perception resulted in conflicts with urban authorities over licensing,

taxation, operating site, sanitation, and working conditions of employees (Wodaje et al., 2019).

Concept of Livelihood

The concept of livelihood according to Loubster (1995), is the totality of means by which people secure living, have or acquire the requirement for survival and satisfaction of needs as defined by the people themselves in all aspects of their lives. Its dictionary definition (Oxford Dictionary, 2013) is a “means of securing the necessities of life” which makes it more than merely synonymous with income because it directs attention to the way in which a living is obtained, not just the net results in terms of income received or consumption attained. According to Carney (1998) a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base. Niehof (2001) describe a livelihood as a material means whereby one makes a living and livelihood generation refers to the bundle of activities that people undertake to provide for their basic needs (or surpass them). Again, according to the International Centre for development-oriented Research in Agriculture (ICRA, 2012), a livelihood (making a living) is largely about generating income. But this is really a means to an end, which also includes aspects of: food security (the ability to

feed oneself and one’s family), providing a home, health, security (reduced vulnerability to climatic, economic or political shocks, and so forth), sustainability (the ability to continue to make a satisfactory living), power (the ability to control one’s own destiny), and others.

Thus, livelihood can be summarized as the capabilities, assets (tangible and intangible), and activities required in order to make a living. It will be sustainable and resilient when it can cope with and recover from shocks and stress, and maintain or enhance its capabilities and assets, including the natural resource base both currently and in the future (Chambers & Conway, 2012). To comprehend whether poor people’s livelihood is sustainable or not, the Sustainable Livelihood Analysis Frameworks (SLF) have been proposed by Scoones (1998) and Carney (1999) as shown in figure 2.1 below tells that Sustainable Livelihood Analysis encompasses five interacting elements namely; vulnerability context, asset pentagon, mediating factors, livelihood strategy, and outcomes that jointly create the livelihood of poor people (Scoones, 1998).

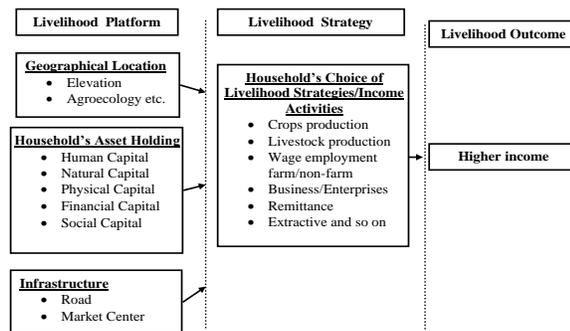


Figure 2.1: Sustainable Livelihood Analysis adopted from Scoones (1998) and Carney (1999).

People pursue multiple livelihood activities. These include crop farming, livestock rearing, trading, fishing, gathering non-timber forest product, working as hired labourer, selling cooked foods or snacks, carpentry or bricklaying, blacksmith, working as a civilian servant, tailoring or hairdressing and craft making (Olawoye, 2010). Fabusoro (2010) asserts that livelihoods are achieved not only through incomes from jobs, but also through non-monetized activities. Some of them are often seen as coping strategies needed to cushion the effects of social, economic and environment shocks.

Concept of Household

The term household covers a wide range of residential forms, groupings of people and functions, making a universal definition of household difficult. A common definition is a group of people who pool their resources together to achieve a common goal (Richard, 2019). Households may involve close family, wider kin networks and can include unrelated co-residents such as lodgers.

According to Richard, (2019) the concept of family embodies a more complex set of relationships and normative assumptions when compared to households. Hence, Moghalu and Abrifor (2012) added that economists have tended to focus on the micro economics of families or households, looking at the bargaining power of their different members of the household.

In a layman understanding, a household consists of one or several persons who live in the same dwelling and share meals. It may also consist of a single family or another group of people. The household is the basic unit of analysis in many social, microeconomic and government models, and is important to economics and inheritance (O'Sullivan & Steven, 2013). In sociology, is the division of labor among members of a household. Household work strategies vary over the life cycle as household members age, or with the economic environment; they may be imposed by one person, or be decided collectively (Pierson & Thomas, 2002).

According to the Sustainable Livelihood Analysis adopted from Scoones (1998) and Carney (1999) cited in Okoro et al (2020) as shown in Figure 2.1 above, households combine these assets (human capital, natural capital, physical capital, financial capital and social capital) together with activities and choices and construct a portfolio of activities (such as business/enterprises (petty trading), agriculture, migration, livelihood diversification, etc.) to achieve their livelihood goals which can be defined as livelihood strategies.

Contributions of Women Petty Trading to Economic Development in Nigeria

Recognizing the role of women in the livelihood of their households is paramount for economic development. Yusuf et al. (2015) described women as the world's most powerful untapped 'natural resources' with economic potentials that are often hidden, silent or not appreciated. This is because most of the livelihood strategies that women engage in are not often defined as economically active employment in the national account systems, though they are crucial to the wellbeing of household members {Food and Agricultural Organization (FAO), 2010}. This is also not untrue about the women in the rural areas, who live in a population that is disproportionately affected by poverty compared to the urban population (Ojogho & Ojo, 2017). This calls for the need for an improved livelihood of both the urban and rural population through income generating activities such as petty trading.

Income generating activities are important for promoting the livelihood of women and the household in general. Washa (2002) observed that income generating activities are important for employment creation, income generation, production of needed commodities, improving food security status and poverty alleviation. In a similar study, the University of Dar Es Salaam Entrepreneurs Centre (UDEC) (2002) reported that women who engage in income-generating activities have more chances of becoming visible

workers, perceiving and identifying themselves as economic beings and becoming more organized. In a recent study, Mouhammad (2018) observed that an important objective of income generating activities is to support both urban and rural households to have access to additional revenues in order to strengthen their food security and livelihoods. The income generated from such activities like petty trading may be small, but it plays a significant role in buying clothing for children, paying for school fees, health care and other household expenditures (Stokes et al. 2015). For example, a study conducted in Taiwan revealed that after holding per capita household income constant, women's income share through petty trading has a significant and positive effect on households' budget share of staples and education (FAO, 2005).

Participation of women in income-generating activities differs in many ways based on their socio-economic characteristics. According to Klugman (2015), their participation varies according to age, religion, ethnicity, education level, literacy, marital status and socio-economic position. These differences according to Mutagandura (2005) are responsible for a consideration of variation in nature, scope and magnitude of women's income-generating activities. In spite of this variation, women participate in those activities which they feel will bring increased income, which they could use to supplement whatever is available or brought in by their spouses. In some

cases, however, the women are the breadwinners of the family (Zulu, 2011).

Women engage in petty trading, trading different kinds of products. However, the activities or products usually have similar characteristics. First, the majority of them are traditional, with low capital input and are labour intensive while the returns accruing to them by comparison tend to be low (Terjesen & Elam, 2012).

According to ILO (2000), women tend to concentrate in the least rewarding income generating activities that usually covers a fairly narrow range of consumer goods. Moreover, they tend to keep business close to home to minimize conflict between their diverse roles as wage earners, mothers and home makers. For example, a cross regional studies of women in the informal sector in Zimbabwe found that about 64% of women run their business close to their home (United Nations Children's Fund, (UNICEF), 2006).

Women's participation in income-generating activities is empowering. According to the International Centre for Research on Women (ICRW) (2012), it boosts women's self-esteem and bargaining power within the household and gives them more mobility and exposes them to new ideas and knowledge. Most of the activities are usually in the informal sector such as working as day laborers on farms or construction sites, domestic servants or petty traders. Such informal jobs are more common in developing and emerging economies (ICRW, 2012). The factors contributing to this situation

include high rate of illiteracy, inadequate credit facilities, smallness of their undertakings and their preoccupation in predominantly subsistence level activities (Stokes, 2015).

From the foregoing, this research attempts to understand the role of women involve in petty trading in Akwanga Local Government area of Nasarawa State, Nigeria and their contribution to their households' livelihood. It describes the socioeconomic characteristics of the women and contributions of women petty trading on household income.

2.0 Empirical Review

Petty Trading and Household Income

Okoro et al (2020) carried out a study on women petty trading and household livelihood in rural communities in South-Eastern Nigeria. Primary data was collected and analyzed from a sample of 400 women petty traders. Findings indicated that women petty trading contributed positively and significantly to household income. In a related study, Mnyawi and Benedict (2014) carried out a study on the contribution of petty trade on household income poverty reduction in Madukani Ward, Dodoma Region. The analysis of qualitative data, collected from semi-structured interviews from 110 randomly sampled petty traders indicated that petty trading was a positive and significant determinant of household income.

Gloria and Opoku (2022) examined the effectiveness of a Rural Enterprise Programme (REP) in improving the livelihood of rural women in Ghana,

using ex-anti and ex-post income determinants of the programme. Some 217 beneficiary women drawn from farm-based, agro-processing, traditional craft, agro industrial and petty trading economic sub-sectors selected to participate in the survey using snow-ball sampling method. The primary data collected from the sample was analyzed with the use of tables and charts. Results indicated that the women empowerment strategies employed by the programme produced intermediate and long-term outcomes increasing the nominal income of the participants, indicating improvement in the well-being of the rural women.

Petty Trading and Household Standard of Living

Mnyawi and Benedict (2014) assessed the contribution of petty trading on household poverty reduction using primary data collected from 110 petty traders in Dodoma Municipality in Tanzania. The result of the analysis carried out with the use of tables, simple percentages and graphs indicated that petty trading was instrumental in the increase in the level of living standards among households in Nepal. In a similar study, Khatiwada (2019) examined the contribution of petty trading to household livelihood. The study covered different petty markets - Chhata Chowk, Vanu Chowk and Purano Bazar in Dharan city. Primary data was collected from 40 petty traders, and analyzed with the use of tables and simple percentages. The study found that petty trading contributed positively to improving

living standards through poverty reduction.

Theoretical Review (Sustainable Livelihood Framework Model)

The Sustainable Livelihoods Framework (SLF) was adapted from a model developed by the UK's Department for International Development (DFID) in 1998. According to DFID (1999) "the Sustainable Livelihoods Framework (SLF) draws on a holistic understanding of livelihoods, and as such, goes far beyond defining poverty only in terms of the absence of income and consumption and includes the absence of other capabilities such as the social and natural capitals required to meet these needs". Walker et al (2002) noted that the approach centres on ways of understanding the practical realities and priorities of poor men and women, what they actually do to make a living, the assets that they are able to draw on and the problems that they face in doing this. The SLF provides a vital tool where the contribution of women informal sector activities to urban livelihood can be broadly assessed.

Urban livelihood within the SLF is largely seen as means of living. Chamber and Conway (1992), cited in Majale (2002) noted that livelihoods comprise the capabilities, assets and activities required for a means of living". The SLF provision is that it is more practical to start with analyzing strengths as opposed to analysis of needs. The contribution of women informal sector activities to urban livelihoods is brings

into focus strengths. The approach also presents a people centered view that provides a holistic and cross-sectional approach to human development. The approach was useful to the current study as it brought to focus women's contribution to urban livelihoods, tapping on the strengths of the informal sector activities as guided by the provisions of the framework's tenets on sustainable livelihoods.

Owusu (2007) established that "contemporary livelihood strategies in many African cities involve participation in multiple economic activities usually both in the formal and informal sectors". Charmes (1998) added that "women are engaged in those informal activities which are the most difficult to capture and measure and they are engaged, more than men, in second or multiple jobs; and their production activities are hidden behind their status as inactive housewives and family workers". Lyons and Brown (2007) observed that "no parallel effort has been made to engage informal traders in urban political institutions and processes, despite their enormous impact on urban space, life, services and management systems". The SLF thus provided an approach where women's engagement in the informal sector activities were analyzed broadly as a response to urban livelihood needs. The approach outlines five key elements that affect people's livelihoods; livelihood strategies, livelihood assets, vulnerability context, institutions and policies, and livelihood outcomes as illustrated in figure 2.1 above.

At the center of the framework are the livelihood assets namely human, social, natural, physical and financial assets. The approach recognizes that households construct their livelihoods both on the basis of assets which are available to them and within a broader social economic and physical context. According to Meikle et al. (2001), "the approach highlights priorities and examines which assets are most important for the urban poor". Women informal sector activities represent the livelihood strategies that are facilitated by the women's assets and capabilities so as to earn an income and possibly move out of poverty. Hossain (2005) noted that "the livelihood approach recognizes that those who are poor may not have cash or other savings, but that they do have other material assets; their health, their labor, knowledge, skills, friends, family and natural resources around them". These assets basically dictate women's informal sector activities for urban livelihood needs.

The choice of the Sustainable Livelihoods Framework (SLF) to guide this study was based on its emphasis in multidimensional aspects in understanding women livelihoods strategies in a specific context such as petty trading. Thus, SLF is a useful theoretical tool in guiding this study which sought to look at the contribution of women's informal sector activities to urban livelihood such as Akwanga Local Government Area.

Methods of Data Analysis

The study adopted a causal research design focused on the examination of the

effect of participating in petty trading on income and living standard. The causal approach was adopted due to its compatibility with the study direction. The population of the study consisted of all women petty traders in Akwanga LGA. However, as this was an unknown, and presumably large number, the study relied on a sample determined using the sample determination formula provided by Shete et al. (2020) viz –

$$S = (Z - Score)^2 \times \frac{p(1-p)}{(m)^2}$$

Where: S = Necessary sample size

Z-Score = Z value at 95% level of confidence (i.e., 1.96).

p= Rate of variance of responses from their mean value (assumed to be 0.5).

m = Margin of Error (0.05)

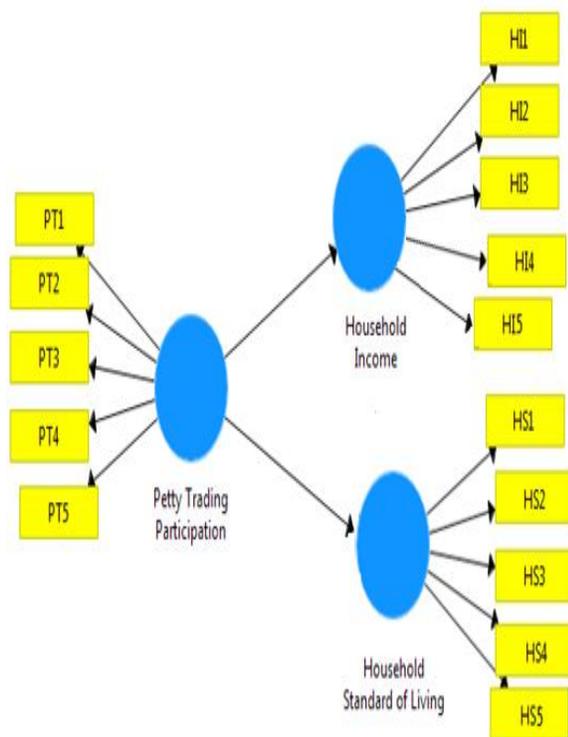
The minimum sample size for the study was, therefore, calculated as

$$\begin{aligned} S &= (1.96)^2 \times \frac{0.5(1-0.5)}{(0.05)^2} \\ &= 3.8416 \times \frac{0.5(0.5)}{0.0025} \\ &= 3.8416 \times \frac{0.25}{0.0025} \\ &= 3.8416 \times 100 \\ &\approx 385 \end{aligned}$$

However, due to the expected problem of non-response, which is common with studies of this nature, respondents were

oversampled to the rate of 10%, resulting in an increased sample size of 424 respondents. Multistage sampling, including cluster and random sampling, was applied in the selection of survey participants across the three LGAs of Akwanga, Nasarawa Eggon and Wamba. Respondents were women petty traders who had households to support. The survey process involved the administration of a structured closed-ended questionnaire designed based on the 5-point Likert response scale. To ensure the accuracy and quality of the research instrument, pertinent feedback from an undertaken pilot study were incorporated into the instrument. Additionally, face and content validity were carried out with the help of experienced researchers in related areas, as well as pilot study participants. To test the formulated hypotheses for the study, the Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to evaluate variable relationships. The specified model is shown in figure 1. The Livelihood variable was represented in the model as an endogenous construct, disaggregated into the two components of Household Income and Household Standard of Living.

Figure 2: Specified Model for the study



Source: SmartPLS Output.

The survey carried out in the course of the study involved the administration of 424 copies of the questionnaire designed for the study. Out of this number, however, 419 were retrieved, from which, 388 were determined to be properly filled, and therefore, used as the final sample of the study. This indicated a response rate of 92%. The respondents who participated in the study survey belonged to a range of age groups: from the responses gathered, 12.5% of the respondents were within the 18 – 25-year age bracket, 29.7% were within 26 – 35 years, 28.3% were within the age gap of 36 – 45 years, while 29.4% of the respondents indicated to be above 45 years in age.

In terms of business specialization, 18.1% of the respondents reported to be engaged in the sale of fruits, 25.9% were involved in the sale of general groceries on a small scale, while grains and tubers were reported by 25.1% of the sample as their business category. The remaining ran bakery businesses (25.1%), were specialized in vegetables (7%), and fast-food (11.4%). 6.4% of collected responses were, however, in the “other” category. A large number of the respondents (53.6%) indicated to have been in business for more than 12 years. Similarly, about 22.5% of the sample reported that their business had been in operation for from 8 to 11 years. On the other hand, while 4.4% of the respondents had been into business for the period of 1 – 3 years, 19.5% said their business had been around for 4 – 7 years.

The PLS-SEM analysis carried out, as is customary, involved an evaluation of the measurement and structural models. While the former was concerned with establishing the reliability and validity of the study constructs, the latter was centered around the estimation of variable parameters and hypotheses testing. In examining reliability, indicator reliability was tested, as well as Cronbach’s Alpha and Composite Reliability. Table 1 gives the Result of Confirmatory Factor Analysis conducted for the study.

Indicator reliability was determined by measurement variables based on an adopted threshold hold of 0.7. As is visible in the information contained in table 1, all factor values not meeting this criterion were deleted from the model. Accordingly, HI4, HI5 and HS5 were removed, their deletion being supported by an improvement in the value of Average Variance Extracted (AVE).

Instrument reliability was also considered in terms of internal consistency. Here, Cronbach Alpha and Composite statistics were considered for constructs. Alpha and Composite Reliability coefficients of at least 0.7 was considered to reflect satisfactory reliability. Estimated values for these two measures ranged from 0.848 to 0.949, indicating that constructs were reliable.

Table 1: Confirmatory Factor Analysis

Construct	Item	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Household Income	HI1	0.885	0.850	0.908	0.767
	HI2	0.927			
	HI3	0.812			
Household Standard of Living	HS1	0.846	0.848	0.898	0.689
	HS2	0.932			
	HS3	0.740			
	HS4	0.789			
	HS5	0.789			
Petty Trading Participation	PT1	0.894	0.933	0.949	0.789
	PT2	0.883			
	PT3	0.908			
	PT4	0.876			
	PT5	0.879			

Source: Extracted from SmartPLS Output (version 3).

Instrument reliability was also considered in terms of internal consistency. Here, Cronbach Alpha and Composite statistics were considered for constructs. Alpha and Composite Reliability coefficients of at least 0.7 was considered to reflect satisfactory

reliability. Estimated values for these two measures ranged from 0.848 to 0.949, indicating that constructs were reliable.

Validity of constructs were determined in two forms - convergent and discriminant. Convergent validity was

tested in terms of AVE. AVE values are commonly required to be above 0.5. As can be seen in table 1, all calculated values are far above this threshold, indicated that factors work together effectively in measuring their underlying constructs. Further, the Fornell-Larcker criterion, Cross Loadings and the Heterotrait-Monotrait (HTMT) ratio were computed to determine discriminant validity, i.e., the uniqueness of scale items in measuring their underlying construct. Discriminant validity is established based on the

Fornell-Larcker criterion when the square root of AVE (bold and diagonal) for a particular construct is greater than its correlation with all other constructs (values below) (see Table 2).

4.0 Statistics and Discussion

This sub-section presents the summary statistics of the data generated on the dependent, mediating and explanatory variables of the study. Table 2 shows the summary statistics relating to the mean, standard deviation, minimum, and maximum of the research variables.

Table 2: Fornell-Larcker Criterion

	HI	HS	PT
Household Income	0.876		
Household Standard of Living	0.657	0.830	
Petty Trading Participation	0.587	0.429	0.888

Source: SmartPLS 3

Discriminant validity was confirmed for all constructs in this case, given the fact that AVE square root values for all constructs were higher than their correlational values with other constructs in the model. To further determine discriminant validity, cross loading values were also explored (see table 3). To establish validity based on cross values, factor loadings must be higher for underlying constructs, i.e., the

original constructs for which they are formulated, then other constructs in the model. The values contained in table 3 show values for underlying constructs in bold. When compared to values obtained when loaded to other constructs, these values were determined to be higher. Therefore, discriminant validity was confirmed for all constructs based on the cross-loading method.

Table 3: Correlation Result

Factor Items	Household Income	Household Standard of Living	Petty Trading Participation
HI1	0.885	0.651	0.587
HI2	0.927	0.570	0.526
HI3	0.812	0.482	0.401
HS1	0.693	0.846	0.427
HS2	0.560	0.932	0.390
HS3	0.419	0.740	0.279
HS4	0.451	0.789	0.294
PT1	0.652	0.475	0.894
PT2	0.466	0.352	0.883
PT3	0.488	0.361	0.908
PT4	0.479	0.322	0.876
PT5	0.474	0.361	0.879

Source: SmartPLS Output.

The HTMT ratio, based on an estimation of the correlation between constructs, was based on a 0.85 upper threshold. Obtained HTMT ratios, as contained in Table 4, indicated that the ratios for all

constructs were lower than 0.85, indicating that the measurement model was free from discriminant validity problems.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

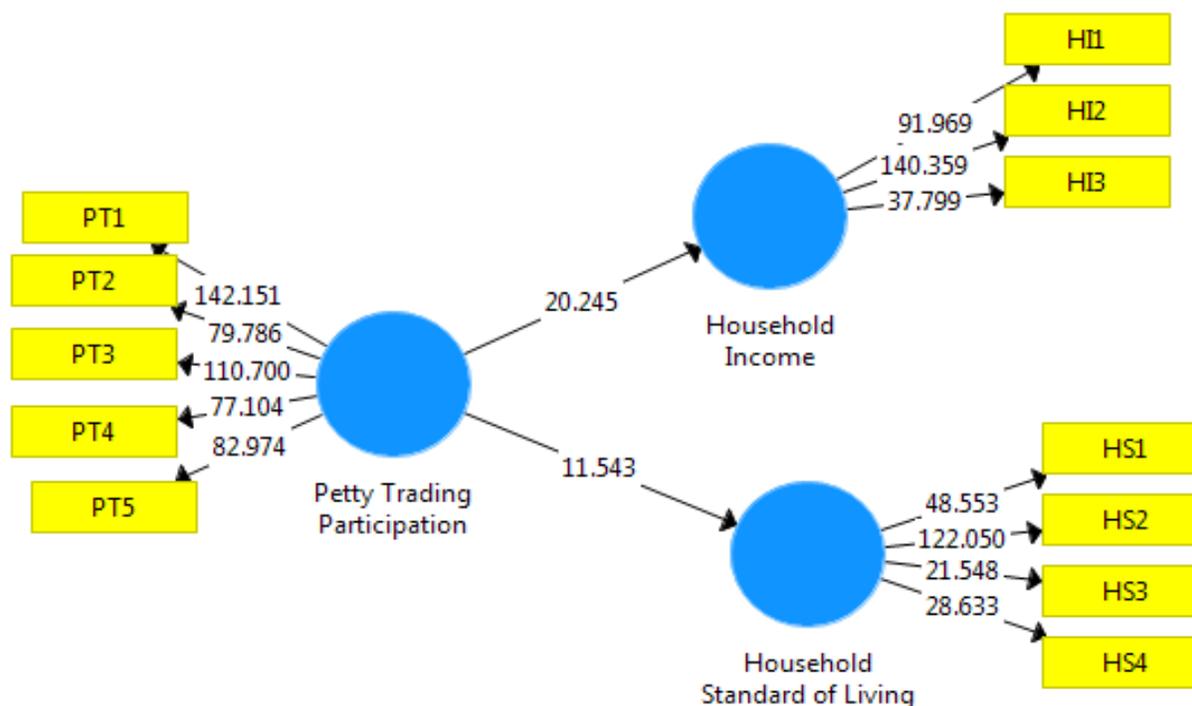
	HI	HS
Household Income		
Household Standard of Living	0.744	
Petty Trading Participation	0.635	0.463

Source: SmartPLS Output.

The inner or structural model was estimated to evaluate the causal relationship between study variables. Figure 3 shows the path model estimated for the study establishing the effect of Petty Trading Participation, as the exogenous variable, on Household Income and Household Standard of Living as endogenous variables. The

estimation process involved a bootstrapping procedure involving 5000 subsamples. The estimated model is shown with estimated significant t-values, indicating that all variable relationships were found to be statistically significant at the 5% level of significance adopted by the study.

Figure 3: Estimated Path Model for the Study



Source: SmartPLS Output (version 3).

Table 6: Estimated Coefficient of Path Model for the Study

	B	Mean	STDEV	T	P Values	Decision (HO)
Petty Trading Participation -> Household Income	0.587	0.588	0.029	20.245	0.000	Rejected
Petty Trading Participation -> Household Standard of Living	0.429	0.432	0.037	11.543	0.000	Rejected

Source: SmartPLS Output.

A positive and significant effect of Petty Trading Participation (PT) was confirmed on Household Income (HI) (0.587, $t = 20.245$, $p < 0.05$), and Household Standard of Living (0.429, $t = 11.543$, $p < 0.05$). The null hypothesis was, therefore, rejected in both cases, implying that petty trading among women had significant effect on

household income and standard of living in Akwanga LGA of Nasarawa state.

5.0 Conclusion and Recommendations

The role of women petty trade in our society cannot be overemphasized. The dearth of jobs, coupled with the desperate need for the augmentation of household income means that women-

ran petty trading businesses are essential for socioeconomic wellbeing. Its low capital requirement and ease of setup makes it especially practical for households in low income and vulnerable groups. The established positive and significant impact on household income and living standard lends credence for the need to increase the level of women participation. Its glaring potential for poverty reduction

and income equality makes it an effective tool for economic managers, non-governmental organizations and other stakeholders in achieving sustainable economic progress. Furthermore, modalities need to be put in place to address the challenges these businesses face, in order to adequately amplify their impact on income and living standards of households in Akwanga.

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