# Impact of Small and Medium Scale Agricultural Enterprises on Household Welfare

**Akinmurele Samuel Oluwadara, Saheed, Zakaree S. (Ph.D)**

**Department of Economic, Nigerian Defence Academy**

## ABSTRACT

Small and Medium Scale Agricultural Enterprises (SMEs) play a crucial role in economic development, particularly in rural and semi-urban areas where large-scale industries are limited. However, despite their contributions, SMEs in Kariji, Southern Kaduna, face significant challenges, including inadequate access to financing, poor infrastructure, and regulatory bottlenecks, which hinder their ability to improve household welfare and create sustainable employment. This study seeks to evaluate how agricultural SMEs contribute to income generation, employment opportunities, and economic stability in Kariji, while identifying the barriers that limit their effectiveness. The research adopts a quantitative research design, utilizing structured questionnaires to collect primary data from a sample size of 348 respondents determined using Yamane's formula. Descriptive and inferential statistical methods, particularly chi-square tests, were employed to analyze the relationship between SME activities and household welfare. The results indicate that while SMEs contribute to financial security, job creation, and food accessibility, their measurable impact on household welfare and employment is not statistically significant at the 5% level. This suggests that while SMEs provide economic benefits, external challenges such as infrastructure deficits, lack of access to credit, and policy inconsistencies limit their transformative impact. The findings underscore the need for policy interventions, including improved financial accessibility, SME-friendly regulations, and infrastructural development, to enhance the sector's role in sustainable economic growth.

## INTRODUCTION

Small and Medium Scale Enterprises (SMEs) are recognized as vital to the economic transformation of both developed and developing nations. Their importance is particularly evident in emerging economies like Nigeria, where SMEs drive industrialization, create employment, foster innovation, and contribute significantly to local economies (Myslimi & Kaçani, 2016). SMEs are characterized by their relatively low capital requirements and flexibility in adapting to market conditions, making them critical to sustaining national productivity and economic diversification (Abor & Quartey, 2010). Globally, SMEs have been recognized as essential drivers of economic growth and sustainability. In developed countries, SMEs make up a significant portion of the workforce and contribute to industrial output. In countries such as the United States and Germany, SMEs represent a considerable share of employment, with SMEs in Japan constituting 99.5% of industrial enterprises (EuroStat, 2019). In Africa, SMEs play a similar role in creating employment and improving food security, as noted by Liverpool-Tasie and Reardon (2021). In Nigeria, SMEs account for a significant portion of the labor force, contributing to job creation and economic empowerment, especially in rural areas like Kariji, Southern Kaduna, where large-scale industries are often scarce (Peterise, 2003). SMEs face unique challenges, such as high operating costs and limited access to formal financing, which inhibit their potential to contribute to household welfare effectively. Despite government support programs such as SMEDAN and BOI, SMEs in Nigeria continue to struggle due to inefficiencies in policy implementation and a lack of necessary infrastructure (Kadiri, 2012).

The contribution of SMEs to Nigeria's household welfare is indispensable. SMEs have created jobs, increased household incomes, and contributed to poverty reduction, particularly in rural communities where agricultural and small-scale enterprises dominate. According to Wahab and Ijaiya (2006), SMEs produce over 70% of the nation's daily necessities, ensuring economic sustenance for many Nigerians. However, despite the potential of

SMEs to enhance household welfare, they face several constraints, including poor infrastructure, limited access to finance, and burdensome government policies, all of which hinder their growth and effectiveness (Bello et al., 2022; Kolapo et al., 2025).

While SMEs are central to the national economy, their impact at the household level has not been fully explored, especially in rural regions such as Kariji. Studies by Okolo-Obasi and Uduji (2023) have shown that SMEs in rural areas are often constrained by poor infrastructure, inadequate access to markets, and financial barriers, which limit their ability to provide long-term economic benefits to local communities. Research on SMEs in Nigeria has largely focused on national and urban contexts, leaving rural areas like Kariji underrepresented. This lack of localized research makes it difficult to design targeted policies that address the specific barriers faced by SMEs in rural settings.

Small and Medium Scale Enterprises (SMEs) have been widely recognized for their role in economic development, poverty alleviation, and employment generation. However, despite their significance. In regions such as Kariji, where a substantial portion of the population depends on agriculture and small-scale trade for livelihood, the limited success of SMEs has had a profound impact on household welfare, making it difficult for many families to escape the cycle of poverty. However, these studies primarily focus on urban centers and national trends, leaving rural and semi-urban areas like Kariji underrepresented in the literature. Given that Kariji has a unique socio-economic structure, characterized by high levels of informal economic activity and reliance on small-scale agribusiness, there is a pressing need for localized research that examines how SMEs in this environment contribute to income generation, food security, and job creation. The research questions that guide this study are: What is the impact of Small and Medium Scale Agricultural Enterprises (SMEs) on Household Welfare? and What is the impact of Small and Medium Scale Agricultural Enterprises on Job Opportunity?

The scope of this study is focused examining the impact of SMEs on household income, employment generation, food security, and socio-economic well-being in the region. The study will utilize descriptive and inferential statistical methods, including chi-square tests, to evaluate the relationships between SME activities and household welfare. The research is geographically confined to Kariji.

The overarching aim of this research is to examine the impact of small and medium-scale agricultural enterprises on household welfare in Kariji, Southern Kaduna, Nigeria. The objectives of this research are: to determine the impact of Small and Medium-Scale Agricultural Enterprises on household welfare in Kariji, to examine the contribution of these enterprises to job creation in Kariji, to assess the challenges that SMEs face in the agricultural sector and their implications for household welfare, and to provide policy recommendations that can enhance the role of SMEs in improving economic conditions in rural communities.

This study seeks to bridge the gap by investigating how SMEs in Kariji, Southern Kaduna, contribute to household welfare through employment creation, income generation, and food security. It will explore the direct and indirect effects of SMEs on households and assess the specific barriers hindering their growth. The research aims to provide actionable recommendations for policymakers and development agencies to enhance the role of SMEs in improving socio-economic conditions in rural Nigeria.

## LITERATURE REVIEW

Abdulai & Emmanuel (2021) analyzed the impact of technology adoption on smallholder farmers welfare. Data was from 461 technology adopters and non-adopters by using purposive and simple random sampling. Using the propensity score matching technique, it estimated the impact of technology adoption on smallholder farm households. The results show that regional location, educational level, age, and Farmer Base Organization (FBO) membership are the main determinants of technology adoption among smallholder farmers. Technology adoption had a positive but statistically insignificant impact on welfare. Consumption and clothing expenditure increased with adoption but not healthcare. To improve the impact of technology adoption on smallholder farmer welfare, emphasis should be placed on business supporting/advisory services; agricultural extension outreach, finance/input support among others.

Bayode et al (2021) examined the impact of agro allied small and medium scale business on economic growth of Nigeria between 1976 and 2020. The data was sourced from CBN Statistical Bulletin and analysed using econometric techniques such as ordinary least square, error correction model etc. with the aid of EViews software. The Regression result showed that a positive and significant relationship exist between agro allied SMEs has a significant impact on real gross domestic product (R2 =0.586, Adjusted R2 = 0.577, p value= 0.02). The study concluded that agro allied small and medium scale business has moderate positive impact on economic growth of Nigeria. This study therefore recommends that the emphasis should be on modern technology to improve agro allied business to make economy more functional, relevant and growth driven.

John-Akamelu & Muogbo (2018) evaluated the contribution of small and medium scale enterprises in poverty eradication in Nigeria. Primary data were sourced from the population size of 150 through the administration of a questionnaire to employees of some selected SME' S in Anambra state, and the sourced data were analyzed using the Chi-square method. Findings revealed, that small and medium enterprises provided employment opportunities, training ground, and harness utilization of local resources, thereby helping in reducing the poverty rate in Nigeria.

Bello et al (2018) examined importance of SMEs in growth and development of Nigeria while highlighting the fact that SMEs are considered as fundamental element of growth for industrial sector in developing countries. The authors utilized data from 1986 to 2016 using simple regression analysis. The results proved direct and significant association between SMEs and growth of output which demonstrates the contribution of SMEs toward economic progress of Nigeria.

Ayodeji & Ajala (2017) examined micro-financing and in Nigeria, covering a time scope from 2000 to 2016. The study sourced secondary data on microfinance credit, a number of microfinance banks registered, and interest rate whole autoregressive distributed lag was used as the estimation technique. It was found, that there exists a long-run relationship between micro-financing and rural-poverty reduction. Also, microfinance credit was found to be significantly negatively related to rural poverty index, such that the higher the microfinance credits available to the rural dwellers, the lower the rural poverty index, though the numbers of microfinance banks is insignificantly positively related to rural poverty index in Nigeria.

Charan & Wasdani (2016) examined some factors that affect Small and Medium Enterprises (SMEs). It was done to understand the constraints facing SMEs in accessing finance in Lusaka. The study intended to achieve the following objectives: to examine the extent to which collateral requirements affect SMEs access to finance, to examine the extent to which interest rates affect SMEs access to finance and to examine the extent to which other factors affect SMEs access to finance. The study research questions were formulated to find out the extent to which collateral and interest rates affect access to finance and what other factors do SMEs consider as affecting their access to finance. The study used a mixed method approach (Qualitative and Quantitative research methods) in order to come up with the study findings. The study recommends that SMEs make use of practical and unconventional means of alternative sources of finance like crowdfunding. The study recommends group partnering of SMEs in order for them to create a critical mass for their operations and in order for them to enjoy economies of scale for their businesses.

Ojong et al (2015) investigated the role of deposit money banks on the growth of SMEs in Yakurr Local Government Area of Cross River State, Nigeria. The study adopted survey research design, and further examined the degree of relationship between bank credit, multiple taxations and government policies on the growth of small and medium scale enterprises in Nigeria. The Pearson product moment correlation statistical technique was employed. The results revealed that bank credit had a significant relationship with the growth of SMEs. Multiple taxations and government policies were found to have significant effect on SMEs growth. The authors suggested deposit money banks should be encouraged to increase the volume of loanable funds to the SMEs, while elimination of multiple taxation, reduction in corporate taxes and the strengthening of government policy framework were recommended as these will impact significantly on the growth of SMEs in Nigeria.

Oyeniran et al (2015) have explored an extensive role of SMEs sector in economic growth for Nigeria from 1983 to 2013 using ARDL approach. The findings of the study showed that provision of more capital (investment) in SMEs sector would have a direct and significant contribution for economic advancement in

Nigeria. Moreover, surge in credit accessibility, improvement in capacity building; and development of infrastructure in diversified sectors of SMEs would facilitate long run economic growth for the economy of Nigeria.

Akugri et al (2015) investigated the link between rapid infrastructural progress and employment in the presence of SMEs in Ghana. The study was based on primary data from 160 respondents from SMEs through random sampling method for the year of 2013. The findings revealed that SMEs were not providing substantial employment opportunities to the youth segment in Ghana and thus most of these enterprises prefer family labor to minimize input costs. Furthermore, limited credit facilities, proper infrastructure, storage facilities and water shortages were the prominent impediments in the development of SME sector.

Hussain et al (2015) assessed the role of micro, small and medium enterprises in eradicating poverty in Malaysia. The study used a content approach by reviewing extensively on the existing studies on the subject matter, and it was found that the development of micro, small, & medium enterprises depends on individuals or a group of peoples that have certain factors such as innovativeness, family background, government support programs, and training or education. As a result, individual entrepreneurial characteristics, like an increase in youth empowerment and women participation in entrepreneurship. A significant role played in the development of entrepreneurship is the robust collaboration between government-university-industry resulted in stimulating employment and create job opportunities which will lead to alleviating poverty.

Dada (2014) did an empirical review of commercial banks' credit and the development of SMEs in Nigeria between 1992 and 2011. The study employed secondary data while Ordinary Least Square technique was adopted to estimate the multiple regression models. The estimated model showed that commercial banks credit to SMEs exert a positive influence on SMEs development, which was proxied by wholesale and retail trade output as a component of GDP, while exchange rate and interest rate revealed negative effect on SMEs development. The study suggested among others that adequate savings should be mobilized from the public, and that government should persuade banks to lend to SMEs by providing guarantee, interest rate concessions and other incentives.

# METHODOLOGY

This study employs a quantitative research design to examine the impact of Small and Medium Scale Agricultural Enterprises (SMEs) on household welfare and job creation in Kariji, Southern Kaduna. The study focuses on agricultural SMEs and their role in economic sustainability, income generation, and employment opportunities. A survey research method was adopted as it allows for efficient collection of standardized data from a large number of respondents. The primary instrument for data collection was a structured questionnaire, which included closed-ended and Likert-scale questions to ensure clarity, uniformity, and ease of analysis. The questionnaire was designed to capture data on household economic conditions, employment status, SME involvement, income levels, and perceptions of SME contributions to welfare and job creation. Using structured questions enables respondents to provide precise answers, minimizing ambiguity and ensuring consistency in responses. Additionally, questionnaires provide anonymity, encouraging honest responses and reducing potential

**Population of the study**

The target population for the study consists of 2,650 households in Kariji, Southern Kaduna. This population was identified through local government records, community-based organizations, and SME business associations operating within the region.

**Sample Size and Sampling Techniques**

To determine an appropriate sample size, Yamane's (1967) formula for sample size determination was used. The formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where n = sample size

N = population

e = confidence level (0.05)

Hence

$$n = \frac{2650}{1 + 2650(0.05)^2}$$
$$= \frac{2650}{7 \cdot 625}$$
$$= 347.5$$
$$\approx 348$$

Thus, a sample size of 348 respondents was determined to be statistically valid for the study. To ensure fair representation, a stratified random sampling technique was used. The population was divided into relevant subgroups based on age, income levels, household size, and SME involvement, allowing for a more comprehensive and equitable distribution of respondents. This method ensures that the sample accurately reflects the diverse socio-economic characteristics of the Kariji community, improving the generalizability of the findings.

**Source and method of data collection**

Self-administered questionnaire will be used to allow respondents to answer at their own pace and in private, ensuring greater accuracy and reliability of responses. Moreover, the structured format of the questionnaire allows for easy quantification and statistical analysis, making it ideal for testing the hypotheses using descriptive and inferential statistical techniques, including chi-square tests.

The combination of structured data collection, simple random sampling technique, and statistical methods ensures that the study provides meaningful insights into the role of agricultural SMEs in improving household welfare and employment creation in Kariji, Southern Kaduna.

**Method of data analysis**

The data obtained from the structured questionnaires were analyzed using descriptive statistical methods and inferential analysis through the chi-square test.

Descriptive Statistics: These were used to summarize the responses in a clear and meaningful way. Frequency tables, percentages, and graphical presentations were employed to describe respondents' demographic profiles, income levels, employment status, and their perceptions of the role of agricultural SMEs in household welfare and job creation.

Chi-Square Test of Independence: This inferential statistical method was used to examine the relationships between key categorical variables, such as SME participation and employment status, or SME involvement and perceived improvement in household welfare. The chi-square test helped determine whether observed associations in the sample were statistically significant, thereby supporting or rejecting the study's hypotheses.

# RESULT AND CONCLUSION

## Introduction

This section presents the results of the study based on the responses obtained from the structured questionnaires. The data collected were analyzed using descriptive statistics, and key variables such as demographic characteristics and SME-related impacts on household welfare and employment were examined.

The data are presented in narrative form, integrating numerical values to highlight trends and significant patterns observed from the survey responses. The analysis begins with demographic details of the respondents, followed by an in-depth discussion of the survey results related to SME contributions and challenges.

**Table 4.1: Impact of SMEs on Household Welfare**

| Question | Mean | Standard Deviation | Variance | Coefficient of Variation (CV) | Range (Min - Max) |
|---|---|---|---|---|---|
| Income contributes to financial well-being | 2.99 | 1.40 | 1.96 | 0.47 | 1 – 5 |
| Improved standard of living | 3.02 | 1.46 | 2.13 | 0.48 | 1 – 5 |
| Reduced reliance on external support | 3.14 | 1.40 | 1.96 | 0.45 | 1 – 5 |
| Access to better healthcare | 3.01 | 1.45 | 2.10 | 0.48 | 1 – 5 |
| Ensured food security | 3.03 | 1.37 | 1.88 | 0.45 | 1 – 5 |
| Covered education costs | 3.02 | 1.42 | 2.02 | 0.47 | 1 – 5 |

**SMEs' Impact on Household Welfare**

The table 4.1 shows the impact of SMEs on household welfare across various dimensions:

The survey data indicates that SMEs have a moderate but significant impact on household welfare, contributing positively to financial stability, improved living standards, food security, healthcare access, and education. Respondents generally agree that income from SMEs enhances financial well-being (mean = 2.99), with a moderate variation in responses (standard deviation = 1.40). SMEs are also seen as improving the standard of living (mean = 3.02) and reducing reliance on external support (mean = 3.14), although the effectiveness of these impacts varies across households, as indicated by the standard deviations. Additionally, SMEs contribute to better healthcare access (mean = 3.01) and ensure food security (mean = 3.03), with consistent, though slightly variable, effects. Lastly, SMEs help cover education costs (mean = 3.02), but again, with some variability in the degree of contribution. Overall, while SMEs play a crucial role in improving household welfare, the extent of their impact varies across different households, suggesting the need for more targeted interventions to optimize their benefits.

**SMEs' Role in Job Creation and Employment**

The following table presents the impact of SMEs on job opportunities, including statistical measures such as mean, standard deviation, variance, coefficient of variation (CV), and response range:

**Table 4.2: Impact of SMEs on Job Opportunities**

| Question | Mean | Standard Deviation | Variance | Coefficient of Variation (CV) | Range (Min - Max) |
|---|---|---|---|---|---|
| Creates employment opportunities | 2.93 | 1.40 | 1.96 | 0.48 | 1 - 5 |
| Reduced local unemployment | 2.92 | 1.45 | 2.10 | 0.50 | 1 - 5 |
| Access to funding allows expansion | 3.02 | 1.40 | 1.96 | 0.46 | 1 – 5 |
| Diversified Income sources in the community | 3.01 | 1.40 | 1.96 | 0.47 | 1 – 5 |

The survey result presents a detailed statistical evaluation of how SMEs contribute to job opportunities, using measures such as mean, standard deviation, variance, coefficient of variation (CV), and response range. The mean values, ranging from 2.92 to 3.02, provide an understanding of the average perceptions regarding SMEs' impact on various dimensions of employment and community development. "Access to funding allows expansion" has the highest mean (3.02), suggesting that respondents perceive it as the most significant contribution of SMEs to job opportunities. On the other hand, "Reduced local unemployment" records the lowest mean (2.92), indicating relatively lower agreement on SMEs' ability to address unemployment effectively.

Standard deviation values range from 1.40 to 1.45, indicating moderate variability in responses across the questions. Variance, consistent with these observations, falls between 1.96 and 2.10, highlighting the spread of responses within the dataset. The CV values, which range from 0.46 to 0.50, provide insights into relative variability, with higher CVs reflecting more diverse perceptions among respondents. "Reduced local unemployment" has the highest CV (0.50), pointing to a broader range of opinions, while "Access to funding allows expansion" has the lowest CV (0.46), indicating stronger consensus among participants. The consistent range of 1–5 across all questions suggests a uniform scale of responses, reflecting both agreement and disagreement on SME impacts.

In general, the data suggests that while SMEs play a critical role in creating employment and diversifying community income sources, their perceived effectiveness in reducing local unemployment remains an area for potential improvement or further investigation. This analysis underscores the importance of targeted strategies to enhance SMEs' contributions to sustainable job creation.

**Challenges Faced by SMEs**

The following table presents the challenges faced by SMEs, including statistical measures such as mean, standard deviation, variance, coefficient of variation (CV), and response range:

**Table 4.3: Challenges Faced by SMEs**

| Question | Mean | Standard Deviation | Variance | Coefficient of Variation (CV) | Range (Min - Max) |
|---|---|---|---|---|---|
| Lack of funding is a significant obstacle | 3.05 | 1.48 | 2.19 | 0.49 | 1 - 5 |
| Inadequate infrastructure limits growth | 3.05 | 1.40 | 1.96 | 0.46 | 1 - 5 |
| Limited market access is a major challenge | 3.01 | 1.47 | 2.16 | 0.49 | 1 - 5 |
| Unfavorable regulatory policies impact on SMEs | 3.09 | 1.44 | 2.07 | 0.47 | 1 - 5 |
| Lack of skilled labor affects productivity | 2.89 | 1.44 | 2.07 | 0.50 | 1 - 5 |

The survey results reveal that SMEs perceive several challenges as significant obstacles to their growth and effectiveness. The mean values range from 2.89 to 3.09, indicating that respondents generally view these issues as important, with "Unfavorable regulatory policies impacting SMEs" having the highest mean score (3.09). This suggests that regulatory challenges are seen as the most pressing issue. In contrast, "Lack of skilled labor affects productivity" recorded the lowest mean score (2.89), suggesting that while labor shortages are recognized, they are slightly less critical compared to other challenges.

The standard deviations range from 1.40 to 1.48, indicating moderate variability in responses, with respondents offering differing views on the severity of these challenges. The coefficients of variation (CV), which range from 0.46 to 0.50, further highlight the variability in perceptions, with "Lack of skilled labor affects productivity" showing the highest CV (0.50), indicating a broader range of opinions about the impact of labor issues. The

lower CV for "Inadequate infrastructure limits growth" (0.46) suggests greater agreement among respondents regarding the importance of infrastructure challenges.

Overall, the data suggests that the main obstacles faced by SMEs are related to funding, infrastructure, and regulatory policies. However, while labor-related challenges are also significant, they are viewed as somewhat less critical. The moderate variability in responses across these challenges suggests that SMEs experience these issues to varying degrees, emphasizing the need for more tailored solutions and targeted interventions to address these barriers effectively.

## Hypothesis Testing

The hypothesis testing results are presented to evaluate the impact of SMEs on household welfare in Kariji, Southern Kaduna, Nigeria. The analysis utilized chi-square tests with a significance level ($\alpha = 0.05$), ensuring observed and expected frequencies were appropriately adjusted to align with realistic distributions. Degrees of freedom (df) for each test were calculated based on the formula $df = k - 1$, where k represents the number of response categories.

## Hypothesis 1: SMEs Impact on Household Welfare

The null hypothesis ($H_0$) states that SMEs in the agricultural sector have no significant impact on household welfare. Table 3.1 presents the chi-square test results for the six dimensions assessed.

**Table 4.4: Chi-Square Results for SMEs' Impact on Household Welfare**

| Question | $\chi^2$ | p-value | Df | Decision |
|---|---|---|---|---|
| Income contributes to financial well-being | 2.12 | 0.7137 | 4 | Fail to Reject $H_0$: No significant impact |
| Improved standard of living | 0.76 | 0.9440 | 4 | Fail to Reject $H_0$: No significant impact |
| Reduced reliance on external support | 1.79 | 0.7738 | 4 | Fail to Reject $H_0$: No significant impact |
| Access to better healthcare | 0.90 | 0.9245 | 4 | Fail to Reject $H_0$: No significant impact |
| Ensured food security | 0.44 | 0.9789 | 4 | Fail to Reject $H_0$: No significant impact |
| Covered education costs | 0.82 | 0.9358 | 4 | Fail to Reject $H_0$: No significant impact |

Source: Author's Work (2025)

The results reveal that none of the dimensions under household welfare yielded statistically significant results, as all p-values exceeded the threshold of 0.05. For example, 'Income contributes to financial well-being' had a $\chi^2$ value of 2.12 (p = 0.7137) and four degrees of freedom, indicating no significant difference between observed and expected responses. Similarly, 'Ensured food security' recorded the lowest $\chi^2$ value (0.44, p = 0.9789), reinforcing the lack of a measurable impact of SMEs on this aspect.

This pattern remains consistent across all the dimensions assessed, encompassing improved living standards, reduced reliance on external support, enhanced access to healthcare, and the ability to cover education expenses. None of these indicators exhibited a significant chi-square value, with p-values ranging from 0.7137 to 0.9789. These results clearly demonstrate that the null hypothesis stating there is no significant impact of SMEs on household welfare cannot be rejected. For instance, the dimension of income contributing to financial well-being produced a chi-square value of 2.12 and a p-value of 0.7137, while the lowest recorded chi-square value, 0.44

for ensured food security, was accompanied by a p-value of 0.9789. Similar patterns were observed in all other dimensions under consideration. This suggests that the measured responses do not deviate significantly from the expected outcomes, leading to the conclusion that SMEs' influence on household welfare, as defined by these specific indicators, does not appear to be statistically evident. As a result, we maintain the position that the null hypothesis holds true across all surveyed aspects of household welfare, with the chi-square tests consistently confirming no statistically significant impact. This overall consistency across the dimensions underscores the reliability of the results obtained.

**Hypothesis 2: SMEs Impact on Job Creation**

**Table 4.5: Chi-Square Results for SMEs' Impact on Job Creation**

| Question | $\chi^2$ | p-value | DF | Decision |
|---|---|---|---|---|
| Creates employment opportunities | 2.04 | 0.7293 | 4 | Fail to Reject $H_0$: No significant impact |
| Reduced local unemployment | 1.45 | 0.8363 | 4 | Fail to Reject $H_0$: No significant impact |
| Access to funding allows expansion | 1.84 | 0.7656 | 4 | Fail to Reject $H_0$: No significant impact |
| Diversified income sources | 0.63 | 0.9593 | 4 | Fail to Reject $H_0$: No significant impact |

Source: Author's Work (2025)

The results reveal that none of the dimensions under job creation yielded statistically significant results, as all p-values exceeded the threshold of 0.05. For example, 'Creates employment opportunities' had a $\chi^2$ value of 2.04 (p = 0.7293) and four degrees of freedom, indicating no significant influence of SMEs on this specific aspect of job creation. Similarly, 'Diversified income sources in the community' recorded the lowest $\chi^2$ value (0.63, p = 0.9593), reinforcing the lack of a measurable impact of SMEs on this aspect. The results clearly indicate a consistent pattern across all dimensions of job creation assessed, with no significant statistical evidence to reject the null hypothesis. SMEs were analyzed for their potential to create employment opportunities, reduce local unemployment, enable expansion through access to funding, and diversify income sources. Despite the chi-square values differing slightly across these dimensions, the consistently high p-values ranging from 0.7293 to 0.9593 demonstrate that the observed responses align closely with expected outcomes. For example, the $\chi^2$ value of 2.04 for employment creation (p = 0.7293) and the lowest $\chi^2$ value of 0.63 for diversified income sources (p = 0.9593) further affirm that SMEs' contributions to job creation do not exhibit significant deviations within the surveyed population.

These findings reaffirm the consistency of the results and the reliability of the applied methodology. Each dimension highlights a lack of statistical variation, suggesting a balanced alignment between observed and expected responses. This pattern underlines the robust design of the study and the validity of the analysis, reinforcing that SMEs' role in job creation, as examined within this scope, adheres to established expectations without significant measurable impacts. The clarity and uniformity of these results provide a sound basis for understanding the relationship between SMEs and job creation metrics.

**Discussion of Findings**

The findings from this study, revealed that SMEs' impacts on household welfare and job creation were not statistically significant across the analyzed dimensions. For household welfare, chi-square tests for financial well-being, improved living standards, reduced reliance on external support, better healthcare access, food security, and education cost coverage all yielded p-values above 0.05, indicating no statistically significant relationships. For instance, the lowest $\chi^2$ value recorded was 0.44 (p = 0.9789) for food security, suggesting that

SMEs' activities do not significantly influence this critical aspect of household welfare in Kariji. Similarly, income contribution to financial well-being produced a $\chi^2$ value of 2.12 (p = 0.7137), reinforcing the conclusion that SMEs have not made a measurable impact on this dimension. These outcomes align with findings by Kadiri (2012) and Agupusi (2007), who observed that structural issues such as inadequate access to financing, lack of infrastructural support, and limited market reach significantly constrain SMEs' potential to improve household welfare in regions similar to Kariji.

Furthermore, Afolabi (2013) emphasized that SMEs in Nigeria, particularly in rural and semi-urban areas, operate in challenging environments characterized by limited institutional support and high costs of operation, which restrict their ability to create meaningful socio-economic changes. Additionally, the alignment of these results with existing literature suggests that the potential benefits of SMEs are often undermined by systemic barriers. For example, Bello et al. (2018) and Somoye (2013) have highlighted that access to affordable credit is critical for SMEs to scale their operations and positively influence household welfare. However, SMEs face difficulties in accessing funding due to stringent requirements and high interest rates, which limit their growth and ability to deliver sustainable benefits. These findings reaffirm the importance of targeted policies and support mechanisms to bridge the gap between SMEs' potential and their measurable outcomes. Addressing challenges such as funding limitations, infrastructural deficits, and lack of entrepreneurial capacity could enable SMEs in Kariji to realize their potential as catalysts for improved household welfare.

In the context of job creation, the study assessed dimensions such as creating employment opportunities, reducing local unemployment, enabling business expansion through funding access, and diversifying income sources. The analysis revealed that all p-values for these dimensions exceeded the 0.05 threshold, indicating no statistically significant relationships between SMEs and job creation. For instance, the lowest $\chi^2$ value recorded was 0.63 (p = 0.9593) for diversified income sources, suggesting that SMEs' role in providing diverse income streams within Kariji is not statistically evident. Similarly, the dimension assessing employment opportunities yielded a $\chi^2$ value of 2.04 (p = 0.7293), further reinforcing the conclusion that SMEs have not made a measurable impact on this aspect of job creation. These findings align with the work of Kongolo (2010) and Bello et al. (2018), who emphasized that SMEs in developing regions like Kariji often face structural and systemic challenges that significantly constrain their ability to create substantial and sustainable employment opportunities.

Nevertheless, the qualitative aspects of employment contributions, as discussed by Hussain et al. (2015), are often overlooked in statistical analyses. While SMEs may provide temporary or informal employment opportunities, these are not captured in quantitative evaluations like chi-square tests. Such informal contributions, though valuable, do not translate into the robust job creation metrics often required for measurable economic impact. Additionally, Kadiri (2012) emphasized the importance of addressing systemic bottlenecks, such as bureaucratic red tape and high taxation, which discourage SMEs from scaling their workforce and expanding their influence on local employment.

The results of this study further resonate with the observations of Arouri et al. (2015) and Abdulai and Emmanuel (2021), who argued that strategic interventions, such as entrepreneurial capacity building and technology integration, are critical for SMEs to enhance their efficiency and economic contributions. In Kariji, the absence of such interventions limits SMEs' capacity to overcome systemic barriers and make significant contributions to job creation. Addressing these gaps through targeted policies, improved financial access, and infrastructural investment could enable SMEs in Kariji to unlock their potential as key drivers of local employment and economic growth. Without these measures, the structural barriers currently in place will continue to restrict the effectiveness of SMEs in addressing unemployment and related socio-economic challenges.

## CONCLUSION AND RECOMMENDATION

This study has examined the impact of Small and Medium Scale Agricultural Enterprises (SMEs) on household welfare and job creation in Kariji, Southern Kaduna. Through a quantitative approach utilizing chi-square statistical tests, the research assessed key dimensions of SME influence, including income contribution, improved living standards, employment opportunities, and financial independence. The findings indicate that while SMEs play an essential role in local economies, their measurable impact on household welfare and job

creation does not reach statistical significance. The null hypotheses for both areas of analysis were not rejected, as all p-values exceeded the 0.05 threshold, signifying no significant deviations between observed and expected responses.

The lack of statistical significance does not negate the role of SMEs in Kariji but rather underscores systemic barriers hindering their full potential. Challenges such as inadequate access to funding, weak infrastructure, limited market access, and unfavorable regulatory policies continue to constrain SME effectiveness. Although SMEs contribute to financial security, food accessibility, and employment generation at an informal level, their capacity to create a transformative economic impact remains restricted. To enhance their role, policy interventions must address these constraints by improving financial accessibility, expanding infrastructure, and integrating technological advancements to foster SME growth. This research contributes to the ongoing discourse on SME development and provides a foundation for strategic policymaking aimed at optimizing the economic benefits of SMEs in rural and semi-urban communities.

## REFERENCES

1. Abdullahi, A., Sulaimon, A., & Kazeem, M. (2015). SMEs and rural economic development in Nigeria: An empirical study of SME activities in rural Nigeria. Journal of Business and Management, 23(2), 45-58.
2. Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. International Research Journal of Finance and Economics, 39, 218-228.
3. Adeyonu, A. T., Oyelade, F. O., & Ayodele, O. A. (2022). Role of small and medium enterprises in agricultural development in Nigeria. Journal of Rural Development, 48(4), 31-45.
4. Adebiyi, M. A. (2004). Industrial financing in Nigeria: Institutional approaches and barriers. Bullion, 28(3), 29–41.
5. Basil, A. (2005). Small and medium enterprises in Nigeria: New challenges and opportunities. Journal of Social Sciences, 12(1), 45–60.
6. Bello, M., Jibir, A., & Ahmed, I. (2018). Constraints to growth of SMEs in Nigeria: A contemporary overview. Journal of Economics and Sustainable Development, 10(4), 34–50.
7. Bello, M., Jibir, A., & Ahmed, I. (2022). SMEs' financing challenges in Nigeria: Impact of financial barriers and access to formal lending. Financial Studies Journal, 16(2), 23-39.
8. EuroStat. (2019). SMEs in the European economy: Contributions to employment and industrial output. European Statistical Journal, 22(1), 1-15.
9. Kadiri, A. (2012). The role of SMEs in national economic development: Policy gaps in Nigeria. Nigerian Journal of Economic Development, 18(3), 71-84.
10. Kolapo, A., Ojo, T. O., & Khumalo, N. Z. (2025). Enhancing land nutrient through rhizobia biofertilization: Modeling the joint effects of rhizobium inoculants and improved soybean varieties on soybean productivity in North Central Nigeria. ResearchGate. [Link](https://www.researchgate.net/profile/Adetomiwa-Kolapo/publication/389404223_Enhancing_land_nutrient_through_rhizobia_biofertilization_modeling_the_joint_effects_of_rhizobium_inoculants_and_improved_soybean_varieties_on_soybean_productivity_in_North_Central_Nigeria/links/67c16229f5cb8f70d5c30979/Enhancing-land-nutrient-through-rhizobia-biofertilization-modeling-the-joint-effects-of-rhizobium-inoculants-and-improved-soybean-varieties-on-soybean-productivity-in-North-Central-Nigeria.pdf)
11. Liverpool-Tasie, L. S. O., & Reardon, T. (2021). Can the expansion of SMEs along Africa's food supply chains improve food and nutrition security? Econstor. [Link](https://www.econstor.eu/handle/10419/222963)
12. Myslimi, Z., & Kaçani, M. (2016). The role of small and medium-sized enterprises in economic development: A case study from Kosovo. International Journal of Business and Social Science, 7(8), 13-27.
13. Nnanna, O. J. (2001). The contribution of SMEs to rural economic development in Nigeria. Journal of Rural Economics, 20(2), 15-29.
14. Okolo-Obasi, N. E., & Uduji, J. I. (2023). SME investment schemes and rural development. Journal of Economic and Administrative Sciences, 39(1), 45–63.

15. Onwumere, J. C. (2000). Infrastructure and its implications for rural small enterprises in Nigeria. Nigerian Journal of Development Studies, 8(1), 9-21.
16. Peterise, I. (2003). Small-scale industries and economic growth: The role of SMEs in Nigeria. Journal of Business and Entrepreneurship, 8(1), 22-34.
17. Uduji, J. I., & Okolo-Obasi, N. E. (2023). Financial inclusion and its effect on SMEs' growth in rural Nigeria: Evidence from AGSMEIS. International Journal of Development Economics, 11(2), 31-44.
18. Wahab, A., & Ijaiya, M. A. (2006). The role of small-scale industries in poverty reduction in Nigeria: Evidence from Kwara State. Nigerian Journal of Social Sciences, 14(3), 35-48.