



**INVESTIGATING THE STRATEGIES OF MARKET ACCESS DYNAMICS  
AFFECTING AGRICULTURAL PRODUCTIVITY AND SUSTAINABILITY AMONG  
SMALL-SCALE FARMERS IN IDO LOCAL GOVERNMENT AREA, OYO STATE,  
NIGERIA**

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**ABSTRACT**

The study examined the strategies, market access dynamics, and barriers affecting agricultural productivity among small-scale farmers in Ido LGA, Oyo State, Nigeria. A multi-stage random sampling technique was applied to select 80 farmers. Data were collected using structured questionnaires and interviews. Data were analyzed using descriptive statistics, including mean, frequency, and percentage. The result revealed that the average age of respondents was 38.57 years, with a household size of 7.12 persons. However, the respondents had an average farm size of 2.21 hectares and 9.26 years of farming experience. The annual income averaged ₦1.296 million, highlighting the economic constraints faced by farmers. Market access strategies were occasionally applied, with the highest mean score of 1.77 for partnering with grocery stores, followed by online marketing (1.65) and local farmers' markets (1.61). The lowest score (1.36) was recorded for attending agricultural fairs, suggesting underutilization of networking opportunities. Barriers to market access included inadequate transportation infrastructure (1.70), reliance on middlemen (1.65), and limited adoption of mobile technology (1.53). Government support (1.79) and farmers' cooperatives (1.78) were identified as key facilitators. Constraints such as poor literacy levels (1.83), high planting material costs (1.79), and inadequate extension services (1.78) were significant challenges. Poor road networks (1.75) and limited market access (1.70) further hindered productivity while lack of finance (1.61) remained a critical obstacle to purchase necessary inputs, invest in infrastructure and adopt advanced technologies. Overall, the study highlights the need for improved infrastructure, financial access, and digital adoption to enhance market participation and sustainability for small-scale farmers.

**Keywords:** Agriculture, Access, Barriers, Market and Productivity.

**INTRODUCTION**

Agricultural productivity and sustainability are critical for economic development, food security, and rural prosperity, especially in developing countries like Nigeria, where agriculture supports many rural communities. Small-scale farmers are the backbone of Nigeria's agricultural sector, contributing significantly to food supply and the rural economy. However, they encounter numerous challenges that hinder productivity and sustainability, such as limited market access, inadequate farming strategies, and structural barriers that impede agricultural development. These challenges often result in reduced productivity, income instability, and environmental degradation, posing serious threats to food security and rural livelihoods (Ogundipe *et al.*, 2020).

Market access is a vital factor influencing agricultural productivity and sustainability. Small-scale farmers in Nigeria, including those in Ido Local Government Area (LGA) of Oyo State, face difficulties such as poor infrastructure, inadequate storage facilities, and limited access to competitive markets. These constraints prevent farmers from obtaining fair prices for their produce, thus reducing income and discouraging investments in sustainable agricultural practices (Ndanitsa *et al.*, 2021). Furthermore, the lack of effective marketing strategies and poor integration into agricultural value chains limit farmers' opportunities to expand their operations and access essential resources and technologies.



Barriers to agricultural productivity extend beyond market access, encompassing land tenure issues, restricted access to credit, and insufficient extension services; all critical for improving farming techniques and adopting sustainable practices. The absence of these support systems makes it challenging for small-scale farmers to implement modern technologies and climate-resilient practices that could enhance productivity and sustainability (Ariom *et al.*, 2022). Additionally, environmental challenges such as soil degradation, deforestation, and unpredictable weather patterns further exacerbate these problems, reducing crop yields and threatening long-term agricultural viability (Onuoha *et al.*, 2022). In Ido LGA, these challenges are particularly pronounced, leaving farmers marginalized and struggling to access markets, inputs, and credit services.

Despite efforts by government agencies and non-governmental organizations to enhance agricultural productivity and market access for small-scale farmers, many in Ido LGA continue to experience low productivity and face difficulties in accessing profitable markets. These limitations result in reduced income, food insecurity and an inability to invest in sustainable agricultural practices. Therefore, understanding the factors that influence market access and the barriers that impact productivity is essential for developing targeted interventions and policies to promote agricultural sustainability.

The study, aims to provide a comprehensive understanding of these challenges and the strategies farmers employ to overcome them. It focuses on analyzing market access dynamics, evaluating the effectiveness of current strategies and identifying barriers that inhibit agricultural productivity and sustainability. The objectives include identifying the strategies for marketing and selling locally grown produce, evaluating the extent of enhancing market access and fair pricing for farmers and analyzing the barriers hindering sustainable agricultural productivity and sustainability. The research is significant as it provides insights into the agricultural dynamics faced by small-scale farmers in Ido LGA, emphasizing the need for improved market access and sustainable agricultural productivity and sustainability. By addressing these dynamics, stakeholders, including policymakers, agricultural extension services and development agencies, can better design and implement strategies to enhance the livelihoods of small-scale farmers and ensure sustainable agricultural development in the region. The study offers recommendations for enhancing sustainability, improving farmers' income, increasing food security and contributing to economic development in Ido LGA and beyond. Ultimately, this research supports the design of targeted agricultural programs and policies that will empower small-scale farmers and promote sustainable agricultural development.

## **MATERIALS AND METHODS**

### **The Study Area**

The study was conducted in Ido Local Government Area (LGA) of Oyo State, Nigeria, which covers an area of 986 km<sup>2</sup>. The area includes major towns such as Ido, Omi-Adio, Apata, and Apete, and is characterized by fertile land, abundant rainfall and diverse agricultural activities including cocoa, kolanut, palm oil, yam, cassava, maize, and rice farming (Adeosun and Adeoye, 2023).

### **Sampling Techniques and Sample Size**

The study focused on rural, small-scale farmers engaged in food crop farming within Ido LGA. A multi-stage random sampling technique was employed: first, five wards were randomly selected from the ten wards in Ido LGA. In the second stage, ten villages were randomly chosen



from these wards, and in each village, eight respondents were randomly selected, resulting in a total sample size of 80 farmers.

### **Marketing and Productivity Strategies Assessment**

The study evaluates strategies for marketing and selling locally grown produce using a Likert scale ranging from "Never" (1) to "Always" (3). It also assesses efforts to enhance market access and fair pricing for farmers, measured as "Disagree" (1) to "Agree" (3). Additionally, barriers to agricultural productivity and sustainability are evaluated on the same scale to identify key challenges faced by farmers.

### **Data Collection**

Primary data was collected using a structured questionnaire and interview guide, developed with guidance from a research supervisor. The questionnaire captured demographic details, farming practices, market access, and barriers to productivity.

### **Data Analysis**

Data were analyzed using descriptive statistics, including mean, frequency, and percentage, to summarize and interpret the findings. Analysis was performed using SPSS software to ensure data reliability and accuracy.

## **RESULTS AND DISCUSSION**

### **Respondents' Socioeconomic Variables**

The study analyzed various socioeconomic variables of small-scale farmers in Ido Local Government Area, revealing insights into their agricultural productivity and sustainability strategies (Table 1). The average age of respondents was 38.57 years, indicating a relatively youthful demographic engaged in farming activities. This aligns with existing literature, which suggests that younger farmers are often more open to adopting innovative farming practices, potentially leading to improved agricultural productivity (Oyetunde-Usman, 2022).

Respondents reported an average of 8.99 years of formal education, which suggests a moderate level of educational attainment. This finding is significant, as education has been identified as a critical factor influencing farmers' access to information and technology, thereby enhancing productivity and sustainability (Okonji and Awolu, 2021). The educational background of the respondents may facilitate better understanding and implementation of sustainable agricultural practices, although there remains a need for targeted training programs to further equip farmers with relevant skills.

The household size averaged 7.12 persons, which may indicate a reliance on family labor within farming activities. Larger household sizes can provide a labor advantage, particularly in labor-intensive agricultural practices. However, it may also reflect the pressures of supporting more dependents, potentially straining the resources available for agricultural investments (Fagbemi and Omowumi, 2020). This duality necessitates a balanced approach to household resource management to ensure that farming remains viable and productive.

On average, respondents managed a farm size of 2.21 hectares, consistent with typical smallholder farming systems in Nigeria. The limited farm size may restrict the scale of production and diversification, thereby impacting overall productivity. Coupled with an average farming experience of 9.26 years, this suggests that while farmers possess some level of practical



knowledge, the relatively small size of their operations may hinder their ability to achieve economies of scale or invest in more sustainable agricultural technologies (Igwe *et al.*, 2020).

The result shows that respondents had average annual income of ₦1.296 million. This level of income highlights the economic challenges faced by small-scale farmers in the region. This income level may not be sufficient to support the farmers' families adequately or to reinvest in their agricultural enterprises. Previous studies have indicated that income instability can lead to reduced investments in sustainable practices, as farmers prioritize immediate financial needs over long-term sustainability goals (Aliyu *et al.*, 2021). Consequently, enhancing market access and financial literacy among these farmers is crucial for improving their economic resilience and capacity to adopt sustainable agricultural practices, productivity and sustainability.

**Table 1: Descriptive Statistics of Respondents' Socioeconomic Variables**

Variables	Mean	Std. Dev.	Min.	Max.
Age of Respondents (Years)	38.57	9.98	20	60
No of years spent in school (Years)	8.99	3.22	4	18
Household Size (Persons)	7.12	2.82	2	14
Farm Size (Hectare)	2.21	1.15	1	5
Farming Experience (Years)	9.26	4.68	2	30
Annual Income (per 1 million Naira)	1.296	0.812	0.100	4.000

Source: Field Survey, 2024.

### Strategies for Marketing and Selling Locally Grown Produce

The study examined various marketing strategies employed by small-scale farmers in Ido Local Government Area to enhance the sale of locally grown produce, as presented in Table 2. The grand mean score of 1.60 indicates that the farmers sometimes utilized these strategies, with none achieving the "always" threshold of 2.50 or higher. Among the strategies assessed, farmers reported a mean score of 1.77 for partnering with grocery stores and supermarkets to stock their produce. This suggests a recognition of the importance of establishing relationships with retail outlets to increase market access. Such partnerships can provide small-scale farmers with better visibility and access to a larger customer base, aligning with findings from previous studies that emphasize the role of retail partnerships in enhancing market opportunities for smallholder farmers (Olomu *et al.*, 2020).

The strategy of utilizing online platforms and social media received a mean score of 1.65. This finding highlights an emerging trend among farmers to adopt digital marketing methods, although the relatively low mean score suggests that the extent of their engagement with these platforms may be limited. Previous research has indicated that digital marketing can significantly enhance farmers' ability to reach wider audiences and increase sales (Ebarefimia *et al.*, 2024). Thus, promoting digital literacy and providing training in online marketing could further empower these farmers to harness the full potential of digital tools.

Participation in local farmers' markets received a mean score of 1.61, indicating a moderate level of engagement in direct-to-consumer sales. Such markets provide a vital avenue for smallholder farmers to establish direct relationships with consumers, often resulting in higher profit margins compared to traditional supply chains (Ismail, 2024). However, the findings also point to a need for more robust participation in these markets, which could enhance the sustainability of their operations and community engagement. Other strategies, such as participating in community-supported agriculture (1.68) and coordinating with wholesalers and distributors (1.64), indicated that farmers were occasionally utilizing these methods to connect with consumers and expand their market reach. Although these strategies can improve income



stability and reduce dependence on a single market channel, the moderate engagement suggests that barriers such as lack of awareness or logistical challenges may hinder more consistent application (Amade *et al.*, 2020).

The lowest mean score was recorded for attending agricultural fairs and festivals (1.36). This indicates that while such events can be beneficial for marketing and networking, farmers in the study were not actively leveraging these opportunities. Previous research has highlighted the potential of agricultural fairs to create visibility and direct sales channels for small-scale farmers (Ebarefimia *et al.*, 2024). Increasing awareness of these platforms and reducing associated costs may encourage more farmers to participate.

Overall, the findings reveal a clear opportunity for enhancing the marketing strategies of small-scale farmers in Ido Local Government Area. Encouragingly, the moderate engagement in various strategies signifies that farmers are open to exploring new avenues for selling their produce. However, there remains a significant need for capacity building, access to resources, and infrastructure improvements to bolster these marketing efforts. Addressing these challenges can facilitate greater market access, improve agricultural productivity, and contribute to the sustainability of small-scale farming in the region.

**Table 2: Strategies for Marketing and Selling Locally Grown Produce**

Strategies for Marketing and Selling Locally Grown Produce	Mean
I utilize online platforms and social media to advertise and sell my crops to a wider audience	1.65
I partner with grocery stores and supermarkets to stock my produce on their shelves	1.77
I participate in local farmers' markets to sell my produce directly to consumers	1.61
I participate in community-supported agriculture programs where consumers subscribe to regular deliveries of my crops	1.68
I establish direct relationships with food processors or value-added producers to supply them with raw ingredients for their products	1.57
I engage in farm-to-school initiatives, supplying educational institutions with fresh produce for their cafeteria menus	1.61
I coordinate with wholesalers and distributors to reach larger markets beyond my immediate area	1.64
I collaborate with nearby restaurants and chefs to supply them with fresh locally-grown ingredients	1.55
I belong to a cooperative or producer group that helps market our collective products	1.61
I attend agricultural fairs and festivals to showcase and sell my crops to attendees	1.36
<b>Grand Mean</b>	<b>1.60</b>

Source: Field Survey, 2024.

### Market Access and Fair Pricing for Farmers

The analysis of strategies aimed at enhancing market access and fair pricing for small-scale farmers in Ido Local Government Area, as depicted in Table 3, highlights various factors influencing their market engagement and pricing outcomes. The overall grand mean score of 1.65 indicates that these strategies are occasionally applied by farmers, suggesting room for improvement in facilitating more consistent and effective market access. The highest mean score of 1.79 was attributed to the role of government support and investment in market infrastructure in improving farmers' access to food crop markets. This finding aligns with previous studies, emphasizing that infrastructure development, such as roads and storage facilities, is crucial for reducing transportation costs and improving the distribution of agricultural products (Omotoso *et al.*, 2022). However, the occasional implementation of such support suggests that these interventions may not be consistently or adequately available to farmers in the study area.

Similarly, the importance of farmers' cooperatives and collective marketing efforts scored 1.78, reflecting their potential to enable small-scale farmers to access larger markets. Cooperative





participation has been shown to enhance bargaining power, reduce costs, and improve income through shared resources (Nda and Obande, 2021). Despite these benefits, the score suggests that such cooperative structures may not be fully utilized or may require further strengthening to maximize their impact. The findings also indicate that inadequate transportation infrastructure significantly hinders market access for farmers in remote areas, as shown by a mean score of 1.70. This is consistent with existing literature which reports that poor road networks and transportation services limit smallholder farmers' ability to reach profitable markets, resulting in restricted sales opportunities and lower income (Olagunju, 2022). Addressing this issue through improved transportation networks and logistics support could play a crucial role in enhancing farmers' market participation.

The reliance on middlemen, which recorded a mean score of 1.65, emphasizes the challenges faced by farmers in securing fair prices for their produce. Middlemen often act as intermediaries, purchasing crops at lower prices, which reduces farmers' profits. This issue aligns with previous research highlighting the need for direct market access and fair pricing mechanisms to protect small-scale farmers' income and sustainability (Okpukpara *et al.*, 2021). Encouraging more direct sales channels or providing farmers with market information could help mitigate this reliance on intermediaries. Other strategies, such as improving market access through mobile technology (1.53) and promoting fair and transparent market mechanisms (1.56), scored lower. These findings suggest that while mobile technology can offer valuable information on market prices and selling opportunities, its uptake among farmers remains limited. This could be due to factors like digital illiteracy or the high cost of mobile services, which limit the accessibility and effectiveness of such solutions (Siano *et al.*, 2020).

**Table 3: Enhancing Market Access and Fair Pricing for Farmers**

Enhancing Market Access and Fair Pricing for Farmers	Mean
Government support and investment in market infrastructure can help improve farmers' access to food crop markets	1.79
Farmers cooperatives and collective marketing efforts can also help small-scale farmers access larger markets	1.78
Farmers in remote areas may have limited access to food crop market due to inadequate transportation infrastructure	1.70
Small-scale farmers often struggle to reach larger markets where they can sell their crops at a fair price	1.68
Some farmers rely on middlemen or intermediaries to sell their crops, resulting in lower profits for the farmers	1.65
Ensuring farmers have fair and transparent market access	1.56
Farmers who have access to local markets can benefit from reduced transportation costs and shorter supply chain	1.56
Farmers with limited access to food crop markets may be forced to sell their produce at lower prices, leading to financial insecurity	1.56
Improving farmers' access to info through mobile technology can help them make better selling decisions	1.53
<b>Grand Mean</b>	<b>1.65</b>

Source: Field Survey, 2024.

### Barriers to Agricultural Productivity and Sustainability

The analysis of barriers to agricultural productivity and sustainability among small-scale farmers in Ido Local Government Area, as presented in Table 4, reveals several critical challenges. The grand mean score of 1.67 indicates that respondents generally exhibited a neutral stance toward the listed barriers, suggesting that while these obstacles are present, their impact varies across farmers. The highest mean scores of 1.83 were observed for farmers' literacy levels and



poor communication systems, indicating that these are perceived as significant but not uniformly critical barriers. These findings are consistent with previous studies highlighting the importance of literacy and effective communication for farmers to access information, adopt best practices, and implement innovative agricultural techniques (Sennuga *et al.*, 2020). Farmers with limited literacy may struggle with record-keeping, market navigation, and adoption of modern technologies, while poor communication systems may hinder the dissemination of agricultural information and support services.

The high cost of planting materials, with a mean score of 1.79, was also identified as a major concern. This result aligns with the findings of (Chiaka *et al.*, 2022), who noted that rising input costs, including seeds and fertilizers, often limit smallholder farmers' ability to expand or sustain production. It highlights the need for policies that subsidize agricultural inputs or provide financial support to alleviate this economic burden. Inadequate extension contacts, which scored 1.78, further emphasizes the gap in technical support and training for farmers. Regular extension services are essential for disseminating knowledge on sustainable practices, pest management, and efficient use of resources (Olorunfemi *et al.*, 2020). The occasional nature of such services suggests that increased investment in extension programs could positively impact agricultural productivity and sustainability.

Infrastructure-related barriers, such as a lack of access roads to farms (1.75) and insufficient access to markets (1.70), were also prominent. Poor road networks and limited market access constrain farmers' ability to transport produce, leading to post-harvest losses and reduced income opportunities (Balana *et al.*, 2022). This finding reinforces the need for infrastructure development, particularly in rural areas, to facilitate better connectivity and market integration for small-scale farmers.

**Table 4: Barriers to Agricultural Productivity and Sustainability**

Barriers to Agricultural Productivity and Sustainability	Mean
Farmers' literacy level	1.83
Poor communication system	1.83
High cost of planting materials	1.79
Inadequate extension contacts	1.78
Lack of access roads to farms	1.75
Insufficient access to the market	1.70
Land Tenure Problem	1.66
Inadequate government support	1.66
Lack of finance to increase production	1.61
Incidence of pests and diseases	1.43
Unavailability of Energy-saving tools	1.36
<b>Grand Mean</b>	<b>1.67</b>

Source: Field Survey, 2024.

Land tenure issues and inadequate government support both scored 1.66, indicating they are perceived as neutral but relevant challenges. Land tenure insecurity can discourage long-term investments in sustainable practices and limit access to credit facilities (Olumba *et al.*, 2024). Similarly, inadequate government support, including limited funding and policy backing, can hinder the development and adoption of sustainable agricultural innovations.

Lack of finance, with a mean score of 1.61, was noted as a critical barrier, reinforcing findings from previous research that access to financial resources remains a significant constraint



for small-scale farmers (Omodara *et al.*, 2022). Without adequate financing, farmers may struggle to purchase necessary inputs, invest in infrastructure, or adopt advanced technologies.

On the other hand, barriers like the incidence of pests and diseases (1.43) and the unavailability of energy-saving tools (1.36) received the lowest mean scores, indicating a general disagreement among respondents on their significance. This suggests that while these issues exist, they may not be perceived as immediate threats compared to economic or infrastructural challenges. Nevertheless, pest and disease management are critical for long-term sustainability, as emphasized in various studies (Ali *et al.*, 2023), highlighting the need for continued monitoring and intervention.

## CONCLUSION AND RECOMMENDATIONS

The study highlights the socio-economic characteristics of respondents, revealing that most farmers in the area have limited years of education, small farm sizes, and modest annual incomes. The strategies for marketing and selling locally grown produce are not fully optimized, as the mean scores indicate occasional use of various marketing channels. Market access and fair pricing remain challenges, as farmers sometimes rely on middlemen and face transportation infrastructure limitations. Additionally, barriers such as literacy levels, poor communication systems, high costs of planting materials, and inadequate government support hinder agricultural productivity and sustainability.

To improve market access and agricultural productivity, there is a need for government investment in infrastructure, including transportation networks and communication systems, to facilitate better market connectivity. Enhancing farmers' education and extension services can empower them with the knowledge and skills necessary for adopting sustainable practices. Establishing more cooperatives and collective marketing platforms could help small-scale farmers' access larger markets. Addressing financial and policy support gaps is crucial for enabling farmers to scale production and increase profitability. Future research should focus on exploring specific technological interventions and financial models that could provide sustainable solutions to these challenges, ensuring a broader reach and impact among small-scale farmers.

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