
**ASSESSING PROFITABILITY OF ONION (*allium cepa*) MARKETING IN AWKA
SOUTH LOCAL GOVERNMENT AREA ANAMBRA STATE, NIGERIA**

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ABSTRACT

The study examined the assessment of profitability of onion marketing in Awka South local government Area, Anambra State, Nigeria. This study employed a survey research design, using a structured questionnaire to collect primary data from 100 onion marketers in Awka South Local Government Area, Anambra State, Nigeria. The sample was selected through multistage sampling techniques. Descriptive analysis and gross margin were used to analyze the data. This study examined the economic aspects of onion marketing in Awka South Local Government Area of Anambra State, focusing on the socioeconomic characteristics of marketers and cost returns in marketing of onion. A sample of 100 onion marketers was analyzed. The findings revealed that the majority of marketers were female (59%), aged between 31 and 40 years (33%), and had an average marketing experience of 12 years. The analysis of costs showed a total fixed cost of ₦28,044.79 and a total variable cost of ₦13,914.94, resulting in a total cost of ₦41,959.73. With a total revenue of ₦80,000.00, the gross margin was ₦66,085.06 and the net revenue was ₦38,040.27. The study recommended that financial institutions, and local stakeholders involved in the agricultural sector should play vital role in upgrading profits.

Keywords: Assessing, Profitability, Onion, Marketing.

1. INTRODUCTION

Agriculture is a fundamental sector of the economy, involving the cultivation of crops, raising of livestock, and related activities (World Bank, 2023). It is "the science, art, and practice of cultivating the soil, producing crops, and raising livestock" (Britannica, 2023). Agriculture provides primary means of employment for Nigerians, accounts for more than one-third of total gross domestic product (GDP), ensures food security, alleviate poverty and reduce labor force wastage (Food and Agriculture Organization, 2014; Emegha, Ofobuike, Bosah & Ngwube, 2025). Onions (*Allium cepa* L.) are one of the most ancient and widely cultivated crops in the world, with a history dating back over 7,000 years (Sulumbe, Ekunwe, and Adedeji, 2015). They are believed to have originated from tropical central or western Asia, where they were first domesticated (Sulumbe, 2015). It is an important vegetable crop belonging to the Amaryllidacea family (Obasi and Kalu, 2019). The total surface area dedicated to onion in the world is about 2.74 million hectares (Obadiah and Kalu, 2019).

In Nigeria, onions are a major source of income for many smallholder farmers, particularly in the northern regions (Adegeye, Ojo, and Adewumi, 2022). The country is among the top onion

producers in Africa, accounting for over 40% of the continent's onion production (International Trade Administration, 2022). According to Obasi et al. (2019) cultivation of this crop in tropical areas has developed steadily for more than 40 years. Onions consumption is spread throughout the year and there is a constant demand for onions all year round which, as most of the onion produced in Nigeria come from the northern states of the country, including Kano, Sokoto, Bornu, Bauchi, Jigawa, Katsina, Zamfara (Obasi and Kalu, 2019).

Onions play a crucial role in the Nigerian economy, providing income for farmers, creating employment opportunities, and contributing to food security (Adegeye, Ojo, and Adewumi, 2022). They are also an essential ingredient in many Nigerian dishes, including salads, stews, and sauces (Raghuvanshi, Singh, and Sharma, 2020). The young green plants are eaten raw in salads, while matured bulb is cooked or eaten raw as it contains essential nutrients which may not be available from other sources (Sulumbe, Ekunwe, and Adedeji, 2015).

Mohammed Auwul Ahmed, Abdulazeez Idriz and Maurice David Chinda (2019) in their work 'Profitability of Onion marketing in Yola North Local Government Area of Adamawa State, Nigeria' reported that lack of credit facilities, security challenges, lack of storage facilities, poor market structure, High marketing tax, supply fluctuations, price fluctuations and lack of uniform unit of measurements were the problems faced in the study area.

Also, Sulumbe, Shettima, and John, (2015) in their work 'An analysis of the marketing of onion in Monguno Local Government Area of Borno state, Nigeria' reported that inadequate storage facilities, inadequate transport facilities and lack of capitals were the problems faced in the study area. The broad objective of this study was to analyze the profitability of onion (*Allium cepa*) marketing in Awka South Local Government Area of Anambra state. The specific objectives were to: describe the socio-economic characteristics of onion marketers; and estimate the costs and returns associated with onion marketing.

2. LITERATURE REVIEW

Concept of Onion (*Allium cepa*)

Onion (*Allium cepa* L.), is an important vegetable crop belonging to the Amaryllidaceae family (Obasi and Kalu, 2019). It is a biennial crop propagated either by seeds, bulb or sets (small bulb) (Charkroborty, 2014).

According to Statistics Portal (2017), the global production of vegetables shows that *Allium cepa* ranks second in value after tomatoes on list of cultivated vegetable crops worldwide with 97.86 million metric tons. It is one of the most important commercial vegetables produced in Nigeria. It is a cool season crop, but can be grown under a wide range of climatic conditions. It grows well under mild climatic condition without extreme heat or cold or excessive rainfall (Maharazu Ibrahim, 2018).

Allium cepa is also one of the most commonly consumed vegetable crops in the world with China being the number one producer, while Japan and India are the second highest producers of green onions and dry onions, respectively (FAO, 2015). Similarly, Nigeria ranks sixth amongst the top ten producers of green onions in the world and eleventh in terms of dry onion (Sence Agric, 2017). In Nigeria, onion is grown mostly in Kano, Kaduna, Jigawa, Sokoto, Plateau, Bauchi and Kebbi States. Kebbi State is also home to some of the biggest onion markets in Nigeria such as that of Aliero, and Yauri Local Government Areas (Magaji et al, 2022). Increased onion production contributes to employment opportunities to the populace (Daniels and Fors, 2015). Onion is known

as "Queen of Kitchen" as it is commonly used as a cooking item by all the community of people (Mandloi 2017). It is an essential vegetable that is a crucial ingredient in the kitchens of nearly every Nigerian household. It can be consumed raw, used as a component in salads, processed into onion paste, dehydrated into onion flakes, or utilized to produce onion oil and onion sauce (Anonymous, 2019; Directorate of Onion and Garlic Research, 2021). Onion is also used as an ingredient in the industrial production of moth repellents and has been shown to provide various medicinal and health benefits (Ravi, 2016).

Concept of Onion Marketing

Onion is primarily marketed and sold as a fresh vegetable, and it is a common ingredient used in cooking by most households. (Monica Udeh et al, 2021). Onions consumption is spread throughout the year and there is a constant demand for onions all year round (Obasi and Kalu, 2019).

Obasi and Emenam (2014) asserted that marketing usually begins at the farm when the farmers harvest their products. When harvested, the products cannot be transported to the consumer as the consumer is likely to be located far away from the farmers. To adjust supply to meet demand, storage is required. When harvested, the product is rarely in a form acceptable for consumers, hence it must be sorted, cleaned and processed in various ways and must be presented to consumers in appropriate quality and quantity for sale (Asogwa and Okwoche, 2012). These activities are carried out by intermediaries in the marketing process. The marketing of onions involves various relationships and arrangements across different levels of the market, from producers to consumers (Ali Ocholi et al, 2021).

According to a study by Adegbite and Oloruntoba (2019), the traditional open-air marketplaces remain a dominant avenue for onion sales in Nigeria. The authors note that these local markets allow for direct transactions between smallholder onion producers and urban/rural consumers, providing an important source of fresh onions.

Theoretical Framework

Consumer Behavior Theory

Consumer behaviour theory was developed out of wanting to better understand consumers and how to sell to them (Beatrice Aragone, 2020). Marketers have always been quite interested in customers' purchasing behaviour (Gangwar, Rashi 2014). They have a difficult challenge because of the diversity of human behaviour, therefore, understanding consumer behaviour aids marketers in better understanding how consumers choose among many options, including goods, (Priyabrata Roy et Al 2022). It makes it easier for vendors to predict which of their products will sell more and enables economists to get a better grasp of the invisible hand, the unseen forces that shape the economy (Daniel Liberty, 2023).

In the context of onion marketing, understanding consumer behavior theory was crucial for developing targeted marketing strategies that resonate with onion consumers. By recognizing the cultural, social, personal, psychological, and environmental factors that influence onion purchasing decisions, marketers tailor their marketing efforts to meet the unique needs and preferences of their target audience, ultimately driving sales and revenue in the onion industry.

3. METHODOLOGY

Research Design

This study used survey research design as adopted by Akpan, et al. (2012) and cited by Okonkwo-Emegha, et al. (2019).

Area of Study

The area of study was Awka South Local Government Area, Anambra State.

Awka South local government area is situated in the Southeast geopolitical zone of Nigeria. The headquarters of the LGA is at Amawbia while the area consists of nine communities, namely, Amawbia, Mbaukwu, Umuawulu, Okpuno, Nise, Nibo, Isiagu, Awka and Ezinato. There are three major streets that span this area, which are the Zik Avenue, Works Road and Arthur Eze Avenue. The vast majority of inhabitants are the members of the Igbo ethnic group. The Igbo and English languages are commonly spoken in the area while Christianity and traditional religion are the main religious affiliations in the area. The area has a very rich cultural heritage as evidenced by the periodic celebration of indigenous festivals such as the New Yam festival and the Ezike Day Festival in Nibo. Landmarks in Awka South local government area include the Anambra Governor's lodge, the Anambra state prisons and the WAEC state headquarters.

Population of Study

The population of the study was registered onion marketers (1,235) as obtained in Agricultural Development Program (2021) in Anambra State.

Sampling Techniques and Sample Size

Two multistage sampling techniques were used for this study.

In the first stage, Awka South Local Government Area was purposively selected because of the dominance of onion marketers.

In the second stage, five markets were randomly selected. Markets such as Eke awka, Nkwo Ama-Enyi, second market, ukwu-oji and Tempsite market were randomly selected for this study. In the third stage, 20 of the onion marketers from each of the selected local markets were randomly selected making it up to 100 respondents. These respondents represent marketers that were used for the study.

Validation of Instruments

The instrument that was used for data collection is a structured questionnaire and it was validated by a statistician for data analysis.

4. RESULTS AND DISCUSSION

Socioeconomic Characteristics of Onion Marketers

The socioeconomic characteristics of onion marketers in Awka South Local Government Area as shown in table 4.1 reveal significant insights into their demographic and economic profiles. The result shows a predominance of female marketers (59%) compared to males (41%), indicating a higher female participation in onion marketing within this region. This gender distribution aligns with the trend of women playing a crucial role in agricultural sectors across many parts of Nigeria (Akinbode, 2020). Additionally, the age distribution suggests a relatively young demographic

involved in onion marketing, with the majority (33%) falling within the 31-40 years age bracket. This age group is often associated with greater energy and adaptability, which may contribute to their active involvement in the market (Osei & Abdulai, 2022).

Marital status and household size data further elucidate the profile of these marketers. A substantial proportion of the respondents are married (55%), and most households consist of 6-10 members (40%). This suggests that onion marketing may be a family-oriented activity, with married individuals managing larger households and possibly integrating family members into their marketing activities. The household size and marital status are crucial factors influencing the availability of family labor and the economic pressure on household income, which can affect marketing practices and strategies (Mbah & Uwaifo, 2023). Contrary with the findings of Emegha, Bosah & Oforbuike (2025) who reported that marketing practices can be influenced by governance structure and conflict trigger in south east.

Educational attainment and marketing experience are also pivotal in understanding the marketers' operational efficiency. The majority of respondents have at least secondary education (34%), and the average marketing experience is 12 years, reflecting a well-experienced group with considerable knowledge and skills in the trade. In line with the findings of Okonkwo-Emegha, Umebali & Obiekwe (2025), who reported that educational attainment and experience are the catalyst to profitability of vegetable production and marketing.

Table 1: Socio-economic Characteristics of Onion Marketers

Variable	Frequency	Percent	Mean
Gender			
Male	41	41.0	
Female	59	59.0	
Age (years)			
Less than 21	7	7.0	
21 – 30	23	23.0	
31 – 40	33	33.0	
41 – 50	21	21.0	42 years
51 – 60	10	10.0	
61 and above	6	6.0	
Marital status			
Single	34	34.0	
Married	55	55.0	
Divorced	6	6.0	
Widowed	5	5.0	
Household size (persons)			
1 – 5	39	39.0	
6 – 10	40	40.0	6 persons
11 – 15	15	15.0	
Above 15	6	6.0	
Educational level			

No formal	11	11.0	
Primary	24	24.0	
Secondary	34	34.0	
Tertiary	31	31.0	
Marketing experience (years)			
0 – 10	45	45.0	
11 – 20	27	27.0	12 years
21 – 30	22	22.0	
Above 30	6	6.0	
Source of labour			
Family labour	52	52.0	
Hired labour	48	48.0	
Source of fund			
Personal savings	46	46.0	
Friends and relations	19	19.0	
Cooperatives	12	12.0	
Microfinance bank	8	8.0	
Commercial bank	7	7.0	
Bank of Agriculture	8	8.0	
Major occupation			
Farming	27	27.0	
Trading	58	58.0	
Civil servant	15	15.0	
Membership of Cooperative			
Yes	63	63.0	
No	37	37.0	
Monthly income (₦)			
Less than 100,000	34	34.0	
100,000 – 200,000	30	30.0	₦105,633.75
200,001 – 300,000	28	28.0	
Above 300,000	8	8.0	

Field Survey: 2025

Cost and Returns of Onion Marketing

The cost and returns analysis in Table 4.2 for onion marketing in Awka South Local Government Area provides a detailed breakdown of the financial aspects involved in the business. The fixed costs amount to ₦28,044.79 and cover essential items such as housing, storage facilities, and equipment like plates, trays, and motorcycles. Among these, the highest expense is attributed to the wheelbarrow, costing ₦19,847.69, which reflects its significant role in handling and transporting the produce.

Variable costs total ₦13,914.94 and include expenses for hired labor, nylon rolls, and communication. The cost of hired labor is ₦10,000.00 for five days, indicating a substantial portion of the variable costs is allocated to labor, which is vital for daily operations and market

transactions. The expenditure on communication (₦414.94) highlights the importance of maintaining connectivity for market coordination and negotiations. These costs reflect typical expenditures necessary for the smooth functioning of marketing activities and are aligned with findings from similar agricultural marketing studies (Ige et al., 2020).

The total cost of ₦41,959.73 juxtaposed with a total revenue of ₦80,000.00 results in a gross margin of ₦66,085.06. This substantial gross margin indicates a profitable operation, with a net revenue of ₦38,040.27 after deducting total costs. The positive net revenue demonstrates the financial viability of onion marketing in this region, reinforcing the profitability potential of agricultural marketing ventures when managed efficiently (Okonkwo-Emegha, 2025). This financial outcome is consistent with other reports on successful market-oriented agricultural activities that benefit from effective cost management and revenue generation strategies.

Table 2: Cost and returns of onion marketing.

Items	Quantity	Unit price (₦)	Amount (₦)
Fixed cost			
Housing			5,000.00
Storage facility			1,000.00
Plate		201.94	201.94
Trays	1	515.28	515.28
Security		1,301.27	1,301.27
Wheelbarrow	1		19,847.69
Bowl		178.61	178.61
Total fixed cost			28,044.79
Variable cost			
Hired labour	5 days		10,000.00
Nylon	80 rolls		2,000.00
Transportation			1,500.00
Communication		414.94	414.94
Total variable cost			13,914.94
Total cost			41,959.73
Total revenue			80,000.00
Gross margin			66,085.06
Net revenue			38,040.27

Field Survey: 2025

5. CONCLUSION

This study provides an in-depth examination of onion marketing in Awka South Local Government Area, highlighting the various socioeconomic characteristics of marketers, the financial dynamics of their operations, and the factors affecting profitability. It reveals that the onion marketing sector is influenced by a range of economic and logistical challenges, which collectively impact the profitability and efficiency of the business.

6. RECOMMENDATIONS

The following recommendations are made based on the results of the study:

- i. To mitigate the high cost of transportation, government agencies should invest in improving road infrastructure and subsidize fuel costs for agricultural transport.
- ii. Youths should be encouraged to start onion business to enable high profitability.

REFERENCES

- Abdulazeez, I., Maurice, D. C., & Muhammad, A. A. (2018). Analysis of onion marketing structure in Yola North Local Government Area of Adamawa State, Nigeria. *International Journal of Scientific Research and Management*, 6(10), 734-743.
- Adebayo, S., & Adesina, A. (2022). Impact of security challenges on agricultural productivity in Nigeria. *Journal of Security Studies and Global Politics*, 11(2), 56-67.
- Adebayo, S., & Adesina, A. (2022). Impact of security challenges on agricultural productivity in Nigeria. *Journal of Security Studies and Global Politics*, 11(2), 56-67.
- Adegeye, O., Ojo, S., & Adewumi, M. (2022). Onion production and marketing in Nigeria: A review. *Journal of Agricultural Economics and Development*, 12(2), 1-15.
- Adeniran, A. O., & Akinbode, S. O. (2021). Economic analysis of cost and returns in vegetable farming: A case study of selected vegetables in Nigeria. *Journal of Agribusiness and Rural Development*, 54(1), 67-79.
- Agbo, S. C., & Nwachukwu, E. C. (2023). Education and its impact on market performance among smallholder farmers. *International Journal of Agricultural Economics*, 15(1), 92-104.
- Agbo, S. C., & Nwachukwu, E. C. (2023). Education and its impact on market performance among smallholder farmers. *International Journal of Agricultural Economics*, 15(1), 92-104.
- Akinbode, S. O. (2020). The role of women in agricultural production and its impact on food security in Nigeria. *Journal of Agricultural Economics and Development*, 9(1), 45-59.
- Alare K, Alare T and Luviano N. 2020. Medicinal importance of garlic and onions on autonomic nervous system. *Clinical Pharmacology Biopharmaceutics* 9(4): 1-4.
- Ali Ocholi, V.N Ayilla, Udeh Monica (2021). Effect of Marketing Intermediaries on Pricing of Onions in Benue State, Nigeria. *Journal of Agribusiness and Rural Development*. 60 (2):133-141
- Bofah, E. A., & Hannula, M. S. (2017). Home resources as a measure of socio-economic status in Ghana. *Large -scale Assessments in Education*, 5(1), 1-15.
- Chukwu, E. S., & Nwafor, J. I. (2024). The role of marketing experience in enhancing agricultural profit margins. *Journal of Agricultural Marketing*, 32(4), 134-146.
- Chukwu, E. S., & Nwafor, J. I. (2024). The role of marketing experience in enhancing agricultural profit margins. *Journal of Agricultural Marketing*, 32(4), 134-146.
- Daniels, H., and Fors, S. (2015). Supply and Value Chain Analysis of onions in Ethiopia; *SLU, Swedish University of Agricultural Science, Uppsala*. Available at: <https://stud.epsilon.slu.se/>
- Directorate of Onion and Garlic Research (2021). Onion Processing. ICAR-Directorate of Onion and Garlic Research, Indian. Retrieved from dogr.icar.gov.in On 15/1/2021.
- [Emegha, K. N., Bosah P.C., Idigo B.C & Ofobuike L.C. \(2025\). The effect of climate change on Food security in Nigeria. A Review International Journal of Research and Scientific Innovation \(IJRSI\). ISSN NO 2321-2705. Volume Xii issue iv Aepiril, 2025.](#)

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- <https://doi.org/10.51244/IJRSI.2025.12040076>.
- Emegha, K. N., Ofobuike L.C., Bosah P.C., & Ngwube, A. (2025). Unfriendly Friends: An Assessment of career civil Servants and political appointees dichotomy in Nigeria. *Irish International Journal of Law, political science and Administration*, 9(4), 78-95. <https://aspjournals.org/index.php/ijlpsa/article/view/1259>
- Emegha, K. N., Bosah P.C., & Ofobuike L.C. (2025). Governance structure and conflict triggers in south east Nigeria: A discourse *Irish International Journal of Law, Political science and Administration*, 9(3), 202-222. <https://aspjournals.org/journalsindex.php/ijlpsa/article/view/1234>
- Ezeani, E. N., Eze, G. I., & Nwosu, I. C. (2023). *Financial management practices and access to credit among smallholder farmers in Nigeria*. *International Journal of Financial Studies*, 11(3), 78-89.
- Food and Agricultural Organization (FAO). (2015). Food and Agriculture Organization Statistical Databases (FAOSTAT), 2015. Retrieved from www.fao.org>nigeria>nigeria-at-a on 5/12/2019.
- Food and Agriculture Organization (2014, 2015). Onion production
- Ige, S. J., Akinbode, S. O., & Akinola, A. O. (2020). *Variable and fixed costs in agricultural production: Evidence from Nigeria's tomato farming*. *African Journal of Agricultural Economics*, 13(2), 102-115.
- Kapoor L D. 2018. CRC Handbook of Avurvedic Medicinal Plants. CRC Press, Milton.
- Kosha Mehta (2024). Marketing cost. Retrieved from <https://www.wallstreetmojo.com/marketing-cost/>
- Kumar Vipin, Taru Dumi, Arvin's Kumar, Archid Gupta, and Uttam Kumar (2020). Variability, Heritability and Genetic Advance for Yield and Yield Related Traits In Tomato (*Solanum lycopersicum*) and Onion (*Allium cepa*). *Annals of Horticulture* 13: 61-65.
- Magaji .U,Y. Kaka, and A. A. Gindi (2022). Technical Efficiency of Onion Production in Kebbi State: A Stochastic Frontier Production Function Approach. *Nigerian Journal of Basic and Applied Sciences*. 30(1): 28-35
- Maharazu, I (2018). Economic analysis of onion (*Allium cepa*) marketing in Kano and Kebbi States, Nigeria. 13 (1):19-30
- Mandloi KS, (2017) Effect of organic manures and inorganic fertilizers on growth and yield of onion (*Allium cepa* L.). *Asian Journal of Horticulture*. 3(2):238-240.
- Mbah, E. C., & Uwaifo, F. M. (2023). *Household dynamics and its effect on agricultural productivity in the Niger Delta region*. *Journal of Rural Studies*, 47, 125-134.
- Nduka, E. O., & Obi, T. C. (2023). *Credit access and agricultural development in Nigeria: Challenges and opportunities*. *African Journal of Financial Management*, 20(3), 110-123.
- Nduka, E. O., & Obi, T. C. (2023). *Credit access and agricultural development in Nigeria: Challenges and opportunities*. *African Journal of Financial Management*, 20(3), 110-123.
- Nnamdi, A. B., & Okeke, I. S. (2021). *Education, experience, and market performance in the agricultural sector*. *Agricultural Economics Review*, 22(2), 102-116.
- Obasi, I.O., Kalu, O.N. (2019). Structure and Efficiency of Onion Market in Umuahia Area of Abia State, Nigeria. *International Journal Econ. Business Management*, 5(1), 40-47.
- Obasi, I.O., Emenam, O. (2014). Marketing Performance of Onions in Ikwuano and Umuahia Local Government Area, Abia State, Nigeria. *Eur. J. Bus. Manag.*, 6(7), 136-140.
-

-
- Okonkwo-Emegha, K., Umehali, E.E., & Obiekwe N. J. (2025). Determinants of loan Repayment Performance Among smallholder vegetable farmer cooperators in Anambra State, Nigeria. International Journal of Research and Innovation in Applied Science. DOI: <https://doi.org/10.51584/ijrias.2025100103>. Vol.10 (1), pp. 429-442.
- Okonkwo-Emegha, K. (2025). Cost-Benefits Analysis of cucumber (*cucum stivns L*) production in Delta State, Nigeria. International Journal of Research and Innovation in Applied Science. (IJRIAS) Vol. 10 (1). February 2025. ISSN: 2454-6194. DOI: <https://doi.org/10.51584/ijrias.2025.10020030>
- Okonkwo-Emegha, K., Achoja, F.O. & Okeke, D.C. (2019). Financial Benefits Analysis of Organic farming of fluted pumpkin (*telfaira occidentalis Hook.F*): Evidence from Nigeria ANADOLU. December 2019; 29 (2): 93-10. www.anadolujournalofAARI.org. doi:10.18615/anadolu.660253.