

### NIGERIAN AGRICULTURAL JOURNAL

ISSN: 0300-368X

Volume 52 Number 2, August 2021 Pg. 384-389 Available online at: http://www.ajol.info/index.php/naj

https://www.naj.asn.org.ng



Creative Commons User License CC:BY

# DIFFERENTIALS IN PERFORMANCE AMONG GINGER MARKETERS IN SOUTH-EAST NIGERIA

<sup>1</sup>Kadurumba, C., <sup>2</sup>Mejeha, R. O. and <sup>2</sup>Nwaru, J. C.

<sup>1</sup>National Root Crops Research Institute, Umudike, Abia State, Nigeria
<sup>2</sup>Department of Agricultural Economics, Michael Okpara University of Agriculture,
Umudike, Abia State, Nigeria
Corresponding Authors' email: Kaduphil@gmail.com

#### **Abstract**

The study analysed the performance of ginger marketers in South-East, Nigeria, using a multi-stage sampling procedure in the selection of hundred sixty eight (168) respondents for the study. A well-structured questionnaire was used in collecting data from the respondents and the data collected analyzed using simple statistical tools like frequency tables, percentages and cost and return analysis. The result revealed that majority (62%) of the ginger marketers were females, mean age of about 44 years and 62.50% married. Majority had little or no contact with extension (1.36), had large households (6persons) and non-members of cooperative society (56.48%). The results of the performance indicators shows the net return as N24,089.66 per week. This suggests that the business was profitable and capable of continuing in both the short and long run. However, higher margin implies a higher profit. It is therefore recommended for policies that will encourage new entrants into the business since is profitable and those already in it to scale up. Awareness campaigns should made to popularize the crop and it benefits, this is expected to increase their livelihoods.

Keywords: Net return, Ginger, Marketers, Marketing Margin, Marketing Efficiency

#### Introduction

Ginger is grown in Nigeria within the Middle Belt States. The crop is among the principal cash crops in Nigeria, being a major producer of the crop, and it is an important export commodity of Nigeria (Ojiako et al., 2007). The most prominent States are Kaduna, Plateau, Niger, and Nassarawa States in order of quantity produced (Ojiako et al., ibid). The production of ginger in Nigeria started vigorously in 1927 (Bernard, 2008). The plant is now cultivated in different parts of Nigeria, though the significant producing areas include Kaduna, Nassarawa, Sokoto, Zamfara, Akwa-Ibom, Oyo, Abia, Imo and Lagos States, with Southern Kaduna as the highest producer of ginger in Nigeria (Bernard, ibid). Nigeria is placed first in the total number hectares available for ginger cultivation, but her contribution to the overall ginger output in the world is too low compared to other countries. This can be attributed to the fact that smallholder and traditional farmers undertake most of the production without the basic production techniques. They are therefore not adequately focused on profit-maximizing motive (FAO, 2010). Ginger powder is fast becoming a household kitchen item in Nigeria. In the market, ginger is available in diverse forms; fresh ginger rhizome,

powder ginger, and dry ginger rhizome (Brian, 2014), with 10% of the ginger product consumed locally as fresh ginger, and the other 90% in dried form for export and local consumption. Ezeagu (2006) indicated that the 20% of the dried ginger was consumed locally and 80% exported. The crop is highly cherished in the international market because of its aroma, pungency and high oil and oleoresin contents called gingerin. It is an essential spice with real potential for employment creation and income generation. It is a low-volume, high-value tropical crop, and serves as a preservative for its aroma and pungency in the foods and beverages industry. The crop is among the oldest rhizomes widely domesticated with spice. In the Nigerian market, ginger is well-known and it is greatly demanded, though it is quite expensive (Brian, 2014). However, local markets also exist, and the domestic demand for ginger is increasing. Nigeria's ginger export is mainly to four regional markets; Europe (51%), USA and Canada (29.5%), Asia (13%) and Africa (0.5%) (Njoku et al., 1995). The world trade in ginger is estimated at \$190 million per year, and main competitors in export are China, Nigeria, and Thailand. In 2004, Nigeria's ginger export stood at 28323mt, valued at over \$21.8 million (FAOSTAT, 2014). Ginger is a seasonal and perishable

crop (USAID, 2017). It is an export crop because of its high demand in advanced medical and confectionery industries. Owing to the lack of storage facilities, traders are forced to sell the product immediately after collection from farmers. Similarly, there are limited collection centers at production sites, with difficulties in proper handling of the product. There is also the absence of ginger washing facilities in Nigeria, which has resulted in low price of the crop because of its dirty appearances. The study therefore analysed performance among ginger marketers in South-East Nigeria.

### Methodology

The study was conducted in South-East States of Abia, Ebonyi and Imo of Nigeria. The South-East zone has over 16 million residents as population (NPC, 2014), and made up of five States, namely: Abia, Anambra, Ebonyi, Enugu, and Imo. It also has a rural population density of 173 persons per square kilometer (Iloka and Anuebunwa, 1995). About 60-70% of the inhabitants are engaged in agriculture, mainly crop farming, animal rearing, food processing, and farm produce marketing. The climate can be described as tropical with two clear, identifiable seasons namely, the wet and dry seasons. Farming, processing, and marketing are the predominant occupation of the people. The zone has many markets (Rural and Urban markets) and small microcredit service providers, which include formal and informal. A multi-stage sampling procedure was used in selecting the respondents for the study. The target population was ginger marketers, whom were randomly sampled. The first stage involved purposive selection of three States, namely; Abia, Imo, and Ebonyi out of the five states in the South-East geo-political zone. These states were chosen based on their high-level activities on ginger processing and marketing. In the second stage, two agricultural zones were purposively selected from each of the selected States, giving a total of six agricultural zones. In the third stage, two Local Government Areas (LGAs) were purposively chosen from each of the two agricultural zones, giving a total of twelve LGAs. In the fourth stage, four communities were purposively selected from each LGA based on the presence of microcredit activities, giving a sample of 48 communities. In the fifth stage, one market was purposively selected from each community to give a total of 48 markets chosen from each of the selected communities. In the sixth stage, the sample frame was obtained from the list of male and female ginger marketers compiled with the aid of the community resident, and extension agents; random sampling technique was then employed to select 48 males and 120 females ginger marketers. Cross-sectional data were used for this study. Primary data were collected using well-structured questionnaires administered to ginger marketers. The data collected were analyzed using descriptive statistics such as percentage, frequency distribution, mean, marketing margin, and marketing efficiency indices. The performance of the ginger marketers was achieved using marketing costs and net returns analyses. Marketing margin and marketing efficiency models were adopted from Mendoza (1995)

and are specified as;

Where, NR = Net Returns, measured as the difference between the total revenue and the total cost of ginger marketing; TRS = Total Revenue Sales which is obtained by calculating the total amount (N) realized from the sale of ginger; TMC = Total Marketing Costs as the sum of the total cost incurred in marketing ginger. Marketing margin is one of the indicators usually identified with marketing efficiency; the formula is specified thus;

$$M_{M} = \frac{S_{P} - P_{P}}{S_{P}} \times \frac{100}{1} \dots (2)$$

Where,  $M_M$  = Marketing margin ( $\frac{N}{N}$ ); Sp = Selling price ( $\frac{N}{N}$ ); Pp = Purchase price ( $\frac{N}{N}$ )

Marketing efficiency describes the movement of goods from producer to consumers at the lowest marketing cost consistent with the provision of the services that the consumers' desire and can afford (Adekanye, 1988) and is specified thus;

M. E = 
$$\frac{\text{value added by marketing (Net Return )}}{\text{Total marketing cost (TMC)}} \times \frac{100}{1} \dots (3)$$

For processors, cost and return analysis were used for profitability, thus NR=TRS-TMC.

#### **Results and Discussion**

## Socio-economic characteristics of ginger marketers in South-East, Nigeria

The results of the socio-economic characteristics of ginger marketers in South-East, Nigeria are presented in Table 1. Result shows that 38.0% of the males engaged in ginger marketing in the study area compared to majority of their female (62.0%) counterparts. This could be that the marketing of ginger requires less effort and not bulky and requires less energy for women to engage in. This is in line with the findings of Ezra et al. (2017) who indicated that the domination of women in ginger marketing is due to low demands of time and efforts required to work in the enterprise. The mean age of ginger marketers was 43.50 years, this implies that ginger marketers are within the active and productive age range, implying they are young people who can withstand stress involved in the marketing of ginger. The results obtained are in line with the findings of Kantiok (2007), who noted that the majority of the actors within the agricultural value chain are in their working age. Also, Udoh and Nyienakuma (2008) noted that agriculturists within the active age group would be able to withstand stress and put more time in various agricultural operations.

Majority (62.5%) of ginger marketers were married, implying that ginger marketing is a source of income to the families from where they meet their basic needs. This result agrees with Ojo and Jibowu (2008) who reported that married people being responsible; their views are likely to be respected within the rural

Kadurumba, Mejeha & Nwaru

communities as they decide on the use of agricultural inputs. Also, Bassey et al. (2015) reported that majority of the agrarian products marketers were married. The result shows that the most of the ginger marketers (95.24%) had one form of formal education or the other. The result shows that literacy levels are high among them and could enhance marketing technology. This could enhance the management of the ginger business in the study area. In marketing, formal education allows ginger marketing to understand the proper management of resources in marketing. High literacy level and western education facilitates the adoption of modern technologies and improved practices (Makarau et al., 2014 and Offor and Nse-Nelson, 2015). Experience is expected to have a significant positive impact on the managerial ability of marketers. Therefore the more experienced a marketer is, the more efficient the business. The result in Table 1 also shows the years of experience the marketers had acquired over the years as 12.45 years. This implies that the more experience, the more committed and confidence they have in the business. The finding also shows that the marketers are aware of the merits and demerits associated with the business because of the long years of experience and how best to invest in making a profit. The experience

gathered would assist and serve as a guide for marketers in their decision-making processes. The study also shows that the majority of the marketers in the study area have a household size of between 4-6 persons. This implies that the marketers in the study area have large household sizes, indicating advantage of family labour. High household size facilitates trade as member's aid in the marketing activities, because of division of labour; help in bringing in funds for household welfare. But this does not agree with the findings of Effiong (2005), Idiong (2005), and Ogundele and Okoruwa (2006), who reported that higher family size does not necessarily translate to higher use of family labour, because some of the able young men may prefer other jobs. Also, due to the larger family sizes, the business profit might be drained as expenditure, particularly if consumption is high. This explains why most small-scale businesses do not succeed. Majority (65.48%) of the marketers do not belong to the cooperatives, with extension visit of about only once (1.36). Studies have indicated the need for more extension visits to enable marketers to learn new techniques and be more efficient. Ekwe et al. (2016), reported that extension visits significantly influenced the use of processing technologies among rural households in Imo State.

Kadurumba, Mejeha & Nwaru

Table 1: Socio-economic characteristics of ginger marketers in South-East, Nigeria (n=168)			
Variables	Frequency	Percentage	
Gender			
Male	64	38.0	
Female	104	62	
Age (years)			
21-30	27	16.07	
31-40	68	40.48	
41-50	46	27.38	
51-60	20	11.9	
61-70	7	4.17	
Mean		43.5	
Marital status			
Married	105	62.50	
Single	20	11.91	
Divorced	18	10.71	
Widow	25	14.88	
Education level (years)			
No formal Education (0)	8	4.76	
Primary Education (1-6)	48	28.57	
Secondary Education (7-12)	60	35.72	
Tertiary Education(13-17)	52	30.95	
Experience (Years)			
1-5	25	14.88	
6-10	38	22.62	
11-15	30	17.86	
16-20	28	16.66	
21-25	24	14.29	
26-30	23	13.69	
Mean		12.45	
Household size			
1-3	39	23.21	
4-6	52	30.95	
7-9	47	27.98	
10-12	30	17.86	
Mean	6.11	5.71	
Cooperatives			
None members	110	65.48	
Members	58	35.52	
Extension visits			
No	89	52.98	
1-2/Yes	57	33.92	
3-4/Yes	22	13.10	
Mean		1.36	

## Performance of ginger marketers in South-East, Nigeria

The result showing the performance of ginger marketers is presented in Table 2. The result indicates that the ginger marketers incurred on the average a total cost of N49,094.66 and obtained an average total revenue of N73,134.32. The net return was N24,089.66. This suggests that the business was profitable and capable of continuing in both the short and long run. The marketers

had marketing margin of 32.93%, and marketing efficiency of 49.12%. The result shows that the marketers are inefficient in marketing, operating below or close to the frontier (100%). The rate of return on investment of N1.49 was obtained for marketers, which means that for every Naira invested in the business the marketers made a return of N1.49. The marketing materials used by the ginger marketers include; nylon bags, weighing balance, and stapling machine.

Table 2: Net returns of ginger marketers for (Average quantity per week)

Quantity (kg)	Unit Cost (₩)	Total cost (₩)
146	299.60	43,741.6
		2,723.41
146	3.33	485.65
146	11.26	1,214.0
		48,164.66
146	3.08	450
		430.0
		49,044.66
146	500.92	73,134.32
		73,134.32
		24,089.66
32.93		
49.12		
1.49		
	146 146 146 146 146 32.93 49.12	146 299.60  146 3.33 146 11.26  146 3.08  146 500.92

Source: Field Survey Data, 2018

#### Conclusion

The study shows the performance of ginger marketers in South-East Nigeria. The result shows that majority of the ginger marketers were females 62%. This could be that marketing of ginger requires less effort and not tedious for women to engage in. The result shows that the mean years of experience of the marketers as 12.45 years implying more experience, the more committed and confidence they have in the business. The results of the performance indicators shows the net return as N24,089.66 per week. This suggests that the business was profitable and capable of continuing in both the short and long run. However, higher margin implies a higher profit. It is therefore recommended for policies that will encourage new entrants into the business since is profitable and those already in it to scale up. Awareness campaigns should made to popularize the crop and it benefits, this is expected to increase their livelihoods.

#### References

Adekanye T.O. (1988). Agricultural Marketing Longman Nig. Ltd. Pp. 50.

Bassey, N.E., Uwemedimo, E.O., Uwem, U.I. and Edet, N.E. (2015). Analysis of the Determinants of Fresh Fish Marketing and Profitability among Captured Fish Traders in South-South Nigeria. The Case of Akwa Ibom State. *Journal of Economics Management and Trade*, 5(1): 35-45.

Bernard, A. (2008). Diseases, pest, and other factors are limiting ginger (*Zingiber officinale* Rose) production in River State. Being the text of a paper delivered during the Agricultural Product Development Strategy Workshop organized by Uptonville Foundation under the aegis of Rivers State Sustainable Development Agency (RSSDA); Available at :http://uptonvilleoginstu.org/ginger.litm 8.

Brian O. (2014). Steps to Take in Ginger Cultivation by Agronigeria - January 9, 2014.

Efflong, E.O (2005). The efficiency of production in selected livestock enterprises in Akwa Ibom State,

Nigeria. Unpublished Ph.D. Dissertation, Department of Agricultural Economics, Michael Okpara University of Agriculture, Umudike.

Ekwe, K. C., Ahumihe, E. and Kalu, U. (2016). Analysis of Use of modern cassava processing Machines among smallholder cassava processors in Imo State, Nigeria. *Journal of Community and Communication Research*, 1(1): 13-18.

Ezeagu, W. (2006). Ginger Export. A Paper Presented at a 3-day National Workshop on Massive Cassava and Ginger Production and Processing for Local Industries and Export held at FatiMuasu Hall, National Centre for Women Development, Abuja.

Ezra, D., Akinola, M.O., Banta, A. L., Makarau, S. B. and Hussani, A. (2017). Socio-Economic Assessment of Ginger production in Jaba Local Government Area of Kaduna State, Nigeria. *Asian Journal of Agricultural Extension, Economics & Sociology*, 15(2): 1-11.

FAO (2010). Food and Agriculture Organization. Production Quantity of Ginger in the World Total 1 9 6 1 - 2 0 0 9 . Retrieved from www.fao.Mongabay.com.

FAOSTAT (2014). Food and Agriculture Organization, data base results (last accessed January 2014).

Idiong, I.C. (2005), Evaluation of Technical, Allocation and Economic Efficiencies in Rice Production System in Cross River State, Nigeria. An unpublished Ph.D Thesis, University of Ibadan, Nigeria.

Iloka, A.W. and Anuebunwa, F.O (1995). Appraisal Study of Agricultural Extension Systemof Nigeria. Southeast-Agro-Ecological zone of Nigeria. Unpublished Manuscript.

Kantiok, B. (2007). Economics of Ginger Production in Kaduna State, Nigeria. M.Sc Thesis, Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University Zaria, Nigeria.

Kydd, J. (1992). Economic analysis of agricultural markets: a manual. Natural Resources Institute, (1992).

Mendoza, E. (1995). The Terms of Trade, the Real

- Exchange Rate, and Economic Fluctuations. *International Economic Review*, 36(1): 101-37.
- Njoku, B. O., Mbanaso, E. N. A. and Asumugha, G. N. (1995). In Ginger Production by conventional and Tissue Culture Techniques. Dolfmadi publishers, Owerri. Pp. 13-14.
- NPC (2014). National Population Commission. National Population Report, Abuja, Nigeria.
- Offor, E.I. and Nse-Nelson, F.A. (2015). Marketing Efficiency of poultry Egg in Umuahia South Local Government Area of Abia State, Nigeria.
- Ogundele, O. O. and Okoruwa, V.O. (2006). Structure of farm cost in upland rice production. A comparative analysis of small and large farms in some selected Local Government Areas of Kaduna State Nigeria. *Ogun Journal of Agricultural Science*, 4:22-31.
- Ojiako, I. A., Asumugha, G. N., Ezedinma, C. and Uzokwe, N. E. (2007). Analysis of production trends in primary root and tuber crops in Nigeria: 1961-2005. *Res. on Crops*, 8(2): 371-380.

- Ojo, M.A. and Jibowu, A.A. (2008). Socioeconomics characteristics influencing Role performance of Rural Community power Actors in Agricultural Extensive Delivery System in Osun State, Nigeria. *Journal of Agriculture and Rural Development*, 2: 27-40.
- Makarau, S. B., Damina, A., Daneji, M. I. and Garba, A. O. (2014). Socioeconomic Factors influencing the adoption of Ginger (*Zingiber Officinale*) Farming Technologies in Samaru Zone of the Kaduna State. Agricultural Development Project (KADP).
- Udoh, A.J. and Nyienakuma, M.G. (2008). Examining Socioeconomic Characteristics and adoption trend of artisanal fishers of Akwa Ibom State, West Africa. *Journal of Agricultural and Social Science*, 4:(1)41-46.
- USAID (2017). USAIDNext Project Ginger Processing To Oleoresin- An Industry-Wide Study Report.

Kadurumba, Mejeha & Nwaru