

PERFORMANCE OF GINGER PROCESSORS FOR NON-MICROCREDIT AND MICROCREDIT USERS IN SOUTH EAST NIGERIA

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ABSTRACT

The study was carried out to determine the performance of ginger processors for non-microcredit and microcredit users in south east Nigeria. A multi-stage sampling procedure was used in selecting two hundred and eighty eight (288) respondents for the study. A well-structured questionnaire was used in collecting data from the respondents and the data collected were analyzed using simple statistical tools such as frequency tables, percentages and cost and return analysis. The result revealed that majority (71.0% and 79.0%) of ginger processors who used micro-credit and non-microcredit were females. The results of the performance indicators shows that users of microcredit performed better than the non-users of microcredit. It is therefore recommended that males should be encouraged to venture into ginger processing as a source of livelihood due to its high level of profitability in the study area. Awareness campaigns should equally be made to popularize the crop and its benefits.

Keywords: Performance, Ginger, Processors, Microcredit

INTRODUCTION

Ginger is grown in Nigeria in the Middle Belt States. The crop is among the principal cash crops in Nigeria. Nigeria is a major producer of the crop and it is an important export commodity of Nigeria (Ojiakoet *al.*, 2007). The most prominent states are Kaduna, Plateau, Niger, and Nassarawa States in order of quantity produced. The production of ginger in Nigeria started vigorously in 1927 (Bernard, 2008). The plant is now cultivated in different parts of Nigeria, though the significantly producing areas include Kaduna, Nassarawa, Sokoto, Zamfara, Akwa-Ibom, Oyo, Abia, Imo and Lagos states. Kaduna State stands as the utmost producer of the crop.

Southern Kaduna remains the chief producers of ginger in Nigeria (Bernard, 2008). 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. Therefore are not adequately focused on profit-maximising 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).

Ten percentage of the ginger product is consumed locally as fresh ginger. The remaining 90% is dried for export and consumed locally. Ezeagu in 2006

opined that the 20% of the dried ginger was consumed locally and the remaining 80% exported. The crop is highly cherished in the international market because of its aroma pungency and high oil and oleoresin content called gingerin.

The crop is an essential spice with real potential for employment creation and income generation. It is a low-volume, high-value tropical crop. Ginger 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. The main competitors in ginger export are China, Nigeria, and Thailand. In 2004, Nigeria's ginger export stood at 28323MT, valued at over \$21.8 million (FAOSTAT data, 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 so that there are difficulties in Handling the product correctly. 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.

MATERIAL AND METHODS

The study was conducted in South-east states of Abia, Ebonyi and Imo of Nigeria.

The zone has over 16 million resident's populations (NPC, 2014). The zone is made up of five states, namely: Abia, Anambra, Ebonyi, Enugu, and the Imo States. 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 occupations of the people.

Farmers in the Zone are primarily involved in food production, processing, and marketing. The zone has many markets (Rural and urban markets) and small microcredit service provider, which include formal and informal credit providers. The microcredit demand and supply outlets in the zone are unimpressive. This could be the reasons for the low production rates, processing and marketing of farm produce in the zone. South East Nigeria is characterized by land tenure system and the production of staple food crops and Economic crops grown

A multi-stage sampling procedure was used in selecting the respondents for this study. The target population was ginger processors. The ginger processors 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 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 was chosen from each of the selected communities. In the sixth stage, the sample frame was obtained from the list of males and females of ginger processors compiled with the aid of the community resident, extension agents, Random sampling technique was employed to select

48 males and 120 females non-microcredit ginger processors users, 25 males and 95 females microcredit ginger processors users,

The financial institution used for this study is the First Bank Nigeria PLC Microcredit Bank. The bank branches used was obtained from interview from the selected ginger processors that accessed the banks.

Cross-sectional data were used for this study. Primary data were collected using well-structured questionnaires administered separately on ginger processors that use microcredit. The secondary sources include annual financial records by the microcredit users and cooperative societies.

The data collected from the ginger respondents (processors) were analyzed using descriptive statistics such as percentage, frequencies distributions, mean, marketing margin, and marketing efficiency. Socioeconomic characteristics of ginger processors was achieved using descriptive statistics such as percentage, frequency distribution, and mean. The performance of the ginger processors, using marketing costs and net returns analyses, marketing margin and marketing efficiency models for processors was achieved using cost and return analysis, adopted from Mendoza (1995) and are specified as

$$NR = TRS - TMC \quad (3.2)$$

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 sales of ginger

TMC = Total Marketing Costs is arrived at by, 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 as follows in equation 3.3 (3.3)

Where

M_M = Marketing margin (N)

S_p = Selling price (N)

P_p = Purchase price (N)

According to Scarborough and Kydd (1992), a 5 percent and a 10 percent marketing margin is acceptable for storable goods and perishable goods, respectively.

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) as in equation 3.4. (3.4)

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

RESULT AND DISCUSSIONS

The results of the socio-economic characteristics of ginger processors for microcredit and non-microcredit users are presented in Table 1.

Table 1: Socio-economic characteristics of ginger processors for microcredit and non- microcredit users

| Processors | | | | |
|--------------------------------|------------------------------|-------------------|--------------------------|-------------------|
| Variables | Non-microcredit users | | microcredit users | |
| | Freq | Percentage | Freq | Percentage |
| Gender | | | | |
| Male | 48 | 28.57 | 25 | 21.0 |
| Female | 120 | 71.43 | 95 | 79.0 |
| Total | 168 | 100 | 120 | 100 |
| Age (years) | | | | |
| 21-30 | 29 | 17.26 | 23 | 19.17 |
| 31-40 | 65 | 38.69 | 45 | 37.5 |
| 41-50 | 47.0 | 27.98 | 32 | 26.67 |
| 51-60 | 18 | 10.71 | 15 | 12.5 |
| 61-70 | 9 | 5.36 | 5 | 4.17 |
| Total | 168 | 100 | 120 | 100 |
| Mean | | 43.50 | | 43.38 |
| Marital status | | | | |
| Married | 100 | 59.52 | 70 | 58.33 |
| Single | 25 | 14.88 | 19 | 15.83 |
| Divorced | 15 | 8.93 | 10 | 8.33 |
| Widow | 28 | 16.67 | 21 | 17.5 |
| Total | 168 | 100 | 120 | 100 |
| Education level (years) | | | | |
| No formal Education | 4 | 2.38 | 3 | 2.5 |
| Primary Education | 50 | 29.76 | 20 | 16.67 |
| Secondary Education | 60 | 35.71 | 58 | 48.33 |
| Tertiary Education | 54 | 32.14 | 39 | 32.5 |
| Total | 168 | 100 | 120 | 100 |
| Experience (Years) | | | | |
| 1-5 | 28 | 16.67 | 24 | 20 |
| 6-10 | 40 | 23.81 | 25 | 20.83 |
| 11-15 | 29 | 17.26 | 20 | 16.67 |
| 16-20 | 27 | 16.07 | 19 | 15.83 |
| 21-25 | 26 | 15.48 | 18 | 15 |
| 26-30 | 18 | 10.71 | 14 | 11.67 |
| Total | 168 | 100 | 120 | 100 |
| Mean | | 10.84 | | 10.66 |
| Total | 168 | 100 | 120 | 100 |
| Mean | | 1.38 | | 1.37 |

Source: Field Survey Data, 2018

The result in Table 1 shows that 28.57% of the ginger processors who used microcredit were males as against 71.43% of their counterpart; while 21.0% and 79% of the processors who did not utilize microcredit were males and females respectively. The result shows that the majority of the processors were females. This could be that processing of ginger requires less effort and not tedious for women to engage on. This is in line with the findings of Ezra *et al.*, (2017) which indicated that the domination of women in ginger processing is due to low demands of time and efforts required to work in the enterprise.

The result shows that the mean age of non-microcredit users and microcredit users of ginger processors are 43.50 and 43.38, respectively. It was observed that the majority (66.67%) of the non-

microcredit users and microcredit users of ginger processors were in the age bracket of 31-50 years. This implies that ginger processors are within the active working bracket. They are young people who can withstand stress involved in the processing of ginger, and they are matured to take credit decisions that sustain the business.

From the result in Table 1, 83% of middle-aged people those within the age (21-50) are involved in ginger processing in the study areas compared to other aged counterparts. The result shows that they are relatively young and have the energy required for the business and be reasonably enterprising and innovative for improved performance. The results obtained are in line with the findings of Kantiok, 2007, who opined that the

majority of the agricultural enterprise actors are in their working age. Also, this is in line with the results of Udoh and Nyienakuma (2008). They opined that agriculturist within the active age groups would be able to withstand stress and put more time in various agricultural operations.

The result in table 1 showed that the majority (59.52% and 58.33% for non-microcredit and microcredit users respectively) of ginger processors were married. This result indicates that ginger processing can be used to sustain the basic needs of families involved in the processing. This result agrees with Ojo and Jibowo (2008) that reported that married people being responsible, their views are likely to be respected within the rural communities as they decide on the use of agricultural inputs.

The result shows that the majority of the ginger processors (97.62% non-microcredit users and 97.5% microcredit users) had one form of formal education or the other. The result shows that the majority of the processors are highly educated. This will enhance the management of ginger processing in the study area. Formal education allows the ginger processors to understand the proper management of resources. This finding agrees with the fact that high

literacy level facilitates the adoption of modern technologies and improved practices (Shehuet *al.*, 2013 and Offor and Nse-Nelson, 2015).

Experience is expected to have a significant positive impact on the managerial ability of the processors. The result in table.1 shows the years of experience the processors had acquired. The mean years of experience of microcredit and non-microcredit users for ginger processing are 10.84 and 10.66 years, respectively. This result is an indication that the ginger processors have been in processing over a long period and can be said that there are experienced. This implies that the more experienced the processors, the more committed and confident they have in the business. The finding also shows that the processors are aware of the merits and demerits associated with the business because of the long years of experience.

In this study, the performance of ginger processors (credit users and non-credit users) were measured using net returns, marketing margin, and marketing efficiency.

The result of the Performance of ginger processors for non-microcredit users is presented in Table 2.

Table 2: Net returns of ginger processors of non-microcredit users (Average quantity per week)

| Variables | Quantity (kg) | Unit Cost (₦) | Total cost (₦) |
|--------------------------------------|---------------|---------------|----------------|
| Variable cost | | | |
| The purchase price per kg | 42 | 299.60 | 12,583.2 |
| Cost of transportation | | | 850 |
| Cost of sorting | 42 | 5.95 | 250 |
| Cost of processing | 42 | 47.62 | 2000 |
| Total Variable Cost | | | 15683.2 |
| Fixed Cost | | | |
| Cost of Rent | | | 450 |
| Depreciation on tools | | | 710 |
| Total Cost | | | 1160 |
| Total variable and Fixed Costs | | | 16,843.2 |
| Selling price per kg of dried ginger | 42 | 515.45 | 21,648.9 |
| Revenue | | | 21,648.9 |
| Net Return | | | 4805.7 |
| Performance Indicators | | | |
| Marketing margin (%) | 22.19 | | |
| Marketing efficiency (%) | 28.51 | | |
| Return on Naira investment (₦) | 1.29 | | |

Source: Field Survey Data, 2018

The result in Table 2 shows that the average total cost of ₦ 16,843.2 was obtained while processing 42kg of ginger and the average total revenue of ₦ 21646.8. The net return was ₦ 4805.7. This suggests

that the business was profitable and capable of continuing in both the short and long run. The processors had marketing margins of 22.19 %. The marketing efficiency of processors of non-

microcredit use 28.51%. The result shows that the processors efficient in marketing. The rate of return on investment of ₦ 1.29 was obtained for processors, which means that for every Naira invested in the business the processors made a return of ₦ 1.29.

The result in Table 3 shows the performance of ginger processors for microcredit users. The result shows that the average total cost of ₦22, 505 .00 and revenue of ₦ 36081.5 was obtained by processing 70kg of dried ginger. The net return on investment was ₦13,576.5.

Table 3: Net returns of ginger processors of microcredit users (Average quantity per week)

| Variables | Quantity (kg) | Unit Cost (₦) | Total cost (₦) |
|--------------------------------------|---------------|---------------|-----------------|
| Variable cost | | | |
| The purchase price per kg | 70 | 245.60 | 17,192 |
| Cost of transportation | | | 1050 |
| Cost of sorting | 70 | 4.00 | 280 |
| Cost of processing | 70 | 35.00 | 2450 |
| Total Variable Cost | | | 20972 |
| Fixed Cost | | | |
| Cost of Rent | | | 560 |
| Depreciation on tools | | | 913 |
| Total Cost | | | 1533 |
| Total variable and Fixed Costs | | | 22,505 |
| Selling price per kg of dried ginger | 70 | 515.45 | 36,081.5 |
| Revenue | | | 36,081.5 |
| Net Return | | | 13,576.5 |
| Performance Indicators | | | |
| Marketing margin (%) | 37.73 | | |
| Marketing efficiency (%) | 60.62 | | |
| Return on Naira investment (₦) | 1.61 | | |

Source: Field Survey Data, 2018

The processors had marketing margins of 37.73% and marketing efficiency of 60.62%. The rate of return on investment was ₦ 1.61, which means that for every Naira invested in the business the processors made a return of ₦ 1.61. The result of these performance indicators obtained shows that the users of microcredit had higher marketing margin, marketing efficiency, and rate of return on investment than the non-users of microcredit. The results of the performance indicators in Tables 2 and 3 shows that users of microcredit performed better than the non-users of microcredit. However, higher margin implies a higher profit (Offoret *et al.*, 2017). The results show that the users of microcredit made a better profit than the non-users of microcredit. Also, the business was able to cover its variable and fixed costs. It would be capable of continuing in the short run (Osarenren and Ojor, 2014). The Processors are by these results encouraged to access credit to boost their trade.

CONCLUSION

The result of the study shows that majority of the ginger processors who used microcredit were females and they equally performed better than the non-users of microcredit. Processing of ginger requires less effort and is not tedious hence accounting for the domination by women in ginger

processing in the study area. It is therefore recommended that males should be encouraged to embrace ginger processing as a profitable venture.

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