



Analysis of Enterprise Combination Patterns and Determinants of Net Profit among Garri Marketers in Ikwuano Local Government Area, Abia State, Nigeria

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Abstract

Garri marketing is an important component of the agricultural marketing system in Nigeria and it plays a crucial role in household income, employment generation and food security. Marketers have numerous obstacles in the economic important garri industry, including unstable markets, scarce funding and inefficient resource allocation. Marketing risks can be reduced and profitability improved by the merger of enterprises by agricultural marketers. The study evaluated the enterprise combination patterns and factors of net profit of garri merchants in Ikwuano Local Government Area of Abia State, Nigeria. Specifically, the study analysed the socio-economic characteristics of garri marketers, existing patterns of enterprise combines, the profitability of enterprise combinations and factors impacting net profit.

Primary data were acquired from 120 garri marketers selected utilising a multistage sampling approach with the aid of structured questionnaires. Descriptive statistics such as frequencies, percentages and means were used to characterise the characteristics of the respondents and patterns of enterprises. Profitability was estimated using budgetary analysis, while Ordinary Least Squares (OLS) multiple regression analysis was performed to identify factors that influence net profit. The results indicated that the average age of respondents was 43.92 years and most (67.50%) of respondents were female marketers. The survey revealed that around 80% of the respondents had formal education and 79.17% were members of cooperative groups. Mixed enterprise combination was the leading marketing strategy employed by 88.33% of the marketers. The biggest net profit (₦2,938,275) was recorded from the enterprise combination of Garri + Pepper + Rice + Condiments + Onion + Palm Oil + Fish followed by Garri + Melon + Rice + Palm Oil + Ginger (₦652,867). The regression study showed that age had negative effect on net profit, while educational level, access to finance and cooperative membership had positive and significant effect on profitability at 1% probability level.

The study found that income stability and profitability among garri marketers improves with firm diversification. Hence, it is vital to consolidate cooperative engagement, enhance access to financing and encourage the development of successful company combinations to improve the economic performance and sustainability of garri marketing enterprises.

Keywords: Garri marketing, diversification of business, profitability, net profit, agricultural marketing, cooperative membership, Nigeria.

INTRODUCTION

Agriculture is still one of the most important areas of the Nigerian economy because it provides jobs, food, raw materials to businesses and income to millions of households. The processing and marketing of cassava products is becoming more and more essential in the agricultural value chain because of the high consumption of cassava based cuisines. Garri is a

roasted granular result of fermented cassava tubers and is one of the most widely consumed staple foods in Nigeria because of its low cost, extended shelf life, ease of preparation and nutritional contribution to the diet of households[1].

Garri is eaten by people from diverse social and economic backgrounds and from different parts of Nigeria. It can be produced as a stiff dough usually known as eba and eaten with different types of soups or eaten as a snack when soaked in cold water and served with sugar, peanuts, coconut or dried fish[2]. Nigeria's population growth and ever-growing demand for cheap staple food have contributed to the increase in garri production and marketing activities in both rural and urban populations [3].

Marketing garri involves a set of operations designed to move the product from the producers to the ultimate consumers. These tasks include the buying, storage, shipping, packaging, grading, distribution and financing of marketing operations. Marketing practices ensure the availability of garri to consumers and also generate income for marketers. Thus, the commercialisation of garri is a major source of income of many rural households and contributes to poverty alleviation and rural economic development[4]. The garri marketing business is profitable and economically important but is characterised by several obstacles which inhibit optimal results. These issues are: changes in market pricing, no access to capital, high transportation costs, storage problems, unfavourable government policies and other uncertainties connected to agricultural markets. Such risks can impact on income and sustainability of garri marketing enterprises[5].

To minimise the impact of these uncertainties marketers often utilise a number of coping methods such as enterprise combination or diversification. Enterprise combination is the simultaneous marketing of garri with other complementing agricultural goods like as rice, yam, vegetables, spices, palm oil, fish and other culinary items. This method allows marketers to diversify business risks, maximise resources at hand, build consumer loyalty and have a more predictable revenue throughout the marketing period[6]. Profitability of diverse combinations of enterprises varies based on such aspects as market demand, input costs, availability of capital, managerial ability and access to market knowledge. Thus, it is vital to know the most successful combinations of enterprises and the socio-economic elements that affect the income of marketers in order to design effective interventions to improve the lifestyle of garri marketers[7].

Garri marketing is a significant economic activity in Ikwuano Local Government Area of Abia State, due to the area's ideal conditions for cassava farming and agricultural trade. However, empirical information on the profitability of various firm combinations and the factors influencing net profit among garri marketers in the area is still sparse. This information is important to marketers, agricultural extension workers, cooperative societies and policymakers that strive to promote efficiency and profitability in the garri value chain[8]. Hence, this study was meant to examine the enterprise combination patterns and predictors of net profit of garri marketers in Ikwuano Local Government Area of Abia State, Nigeria.

MATERIALS AND METHODS

Study Area

The study was conducted in Ikwuano Local Government Area (LGA) of Abia State, Nigeria. Ikwuano LGA was created from the former Umuahia Local Government Area on 27th August 1991, with its administrative headquarters located at Isiala Oboro. The area lies approximately between latitudes 5°24'N and 5°30'N of the Equator and longitudes 7°32'E and 7°37'E of the Greenwich Meridian. It has a population of about 137,993 people, comprising 66,973 males and 71,020 females according to the National Population Census.

Research Design and Population of the Study

A cross-sectional survey research design was employed for this study. The target population comprised all garri marketers (retailers) operating within major markets in Ikwuano Local Government Area of Abia State. The study focused on garri marketers because they are actively involved in enterprise combination decisions, resource allocation, and marketing activities that influence profitability.

Ethical Considerations

Participation in the study was voluntary, and respondents were informed of the objectives of the research before data collection. Information provided by participants was treated confidentially and was used solely for academic and research purposes.

Sampling Procedure and Sample Size

A multistage sampling technique was adopted in selecting the respondents for the study. In the first stage, three communities—Oboro, Ariam, and Olokoro—were purposively selected due to their high concentration of garri marketing activities.

In the second stage, two major garri markets were purposively selected from each of the three communities, giving a total of six markets. In the final stage, lists of registered garri marketers were obtained with the assistance of market officials.

From each selected market, twenty (20) garri marketers were randomly selected, resulting in a total sample size of one hundred and twenty (120) respondents.

Method of Data Collection

Primary data were collected using a well-structured questionnaire administered directly to the selected garri marketers. The questionnaire elicited information on respondents' socio-economic characteristics, including age, sex, marital status, educational level, household size, marketing experience, and cooperative membership.

Furthermore, data were obtained on enterprise combination patterns, quantities and prices of products marketed, costs incurred during marketing operations, access to credit facilities, transportation costs, market charges, and other variables relevant to profitability analysis.

Analytical Techniques

Data collected for the study were analysed using descriptive and inferential statistical techniques. Descriptive statistics, including frequencies, percentages, and means, were used to describe the socio-economic characteristics of respondents and identify the various enterprise combination patterns adopted by garri marketers.

The profitability of the different enterprise combinations was determined using the budgetary analysis approach, while the factors influencing net profit were estimated using the Ordinary Least Squares (OLS) multiple regression model.

Budgetary Analysis Model

The profitability of each enterprise combination was estimated using net profit analysis. Net profit was computed as the difference between total revenue and total marketing cost.

The model is expressed as follows:

$$NP = TR - TC$$

where:

NP = Net Profit (₦)

TR = Total Revenue (₦)

TC = Total Cost (₦)

Total revenue was estimated as:

$$TR = P \times Q$$

where:

P = Unit selling price of the commodity (₦)

Q = Quantity of commodity sold (kg)

Total cost was estimated as:

$$TC = TVC + TFC$$

where:

TVC = Total Variable Cost (₦)

TFC = Total Fixed Cost (₦)

The variable costs included expenditure on garri and complementary products such as pepper, rice, yam, vegetables, melon, palm oil, ginger, fish, transportation, storage, water, and market charges. Fixed costs comprised depreciation on marketing equipment such as cups, basins, tables, and other durable materials, as well as shop or space rent.

RESULTS

Table 1: Socio-economic Characteristics of Garri Marketers in Ikwuano Local Government Area, Abia State (n = 120)

Variables	Frequency	Percentage (%)
Age (years)		
26–35	32	26.67
36–45	15	12.50
46–55	24	20.00
56–65	48	40.00
66–75	1	0.83
Mean age	43.92 years	
Sex		
Female	81	67.50
Male	39	32.50

Marital status		
Single	31	25.83
Married	62	51.67
Widowed	20	16.67
Divorced	7	5.83
Educational level		
No formal education	20	16.67
Primary education	16	13.33
Secondary education	59	49.17
Tertiary education	25	20.83
Household size (persons)		
1–3	35	29.17
4–6	29	24.17
7–9	43	35.83
10–12	13	10.83
Mean household size	5 persons	
Marketing experience (years)		
2–11	15	12.50
12–21	31	25.83
22–31	56	46.67
32–41	8	6.67
42–51	10	8.33
Mean marketing experience	21.50 years	
Cooperative membership		
Yes	95	79.17
No	25	20.83

The result in Table 1 shows that the majority of the respondents (40.00%) were between 56 and 65 years of age, while only 0.83% were above 65 years. The mean age of 43.92 years indicates that most of the marketers were within the economically active age bracket. This suggests that the respondents possess the physical capacity and managerial ability required to undertake the demanding activities associated with garri marketing. The finding agrees with previous studies that reported that agricultural marketing activities are predominantly undertaken by individuals within productive age categories.

With regard to gender distribution, females constituted the majority (67.50%) of the respondents, while males accounted for only 32.50%. This finding indicates the dominant role of women in garri marketing activities within the study area. The predominance of female marketers may be associated with the traditional division of agricultural labour, where women are more involved in processing and marketing of cassava products, whereas men are more involved in crop cultivation and other labour-intensive farming activities.

The marital status distribution revealed that 51.67% of the respondents were married, suggesting that married individuals were more actively involved in garri marketing. The high participation of married respondents may be attributed to the economic responsibility associated with providing for household needs, which encourages engagement in income-generating activities such as agricultural marketing.

The educational distribution showed that a substantial proportion of respondents (83.33%) had formal education, with secondary education accounting for the highest proportion (49.17%). The relatively high literacy level among the marketers is expected to enhance their ability to understand market information, maintain business records, adopt improved marketing practices, and make better economic decisions that can improve profitability.

The result further revealed that the average household size was five persons, with most respondents (35.83%) having household sizes ranging from seven to nine members. Larger household sizes may provide family labour support and

enhance the ability of marketers to undertake various business activities. However, larger households may also increase financial responsibilities, thereby influencing enterprise decisions and income allocation.

The analysis of marketing experience indicated that most respondents (46.67%) had between 22 and 31 years of marketing experience, with an average experience of 21.50 years. This suggests that the respondents possessed considerable practical knowledge and skills in garri marketing. Long years of experience may enhance managerial competence, improve decision-making, and enable marketers to identify profitable enterprise combinations and market opportunities.

The findings also revealed that the majority of the respondents (79.17%) belonged to cooperative societies, whereas only 20.83% did not belong to any cooperative group. Membership of cooperative organizations may provide access to credit facilities, market information, collective bargaining opportunities, and other economic benefits that can improve the profitability and sustainability of garri marketing enterprises.

Table 2: Distribution of Respondents According to Enterprise Combination Patterns (n = 120)

Enterprise Combination Pattern	Frequency	Percentage (%)
A. Type of Enterprise Combination		
Sole enterprise pattern	14	11.67
Mixed enterprise pattern	106	88.33
Total	120	100.00
B. Specific Mixed Enterprise Combinations (n = 106)		
Garri only (sole enterprise)	14	100.00
Garri + Pepper + Rice + Condiments	15	14.15
Garri + Yam + Vegetable + Melon	13	12.26
Garri + Pepper + Rice + Condiments + Onion + Palm Oil + Fish	33	31.13
Garri + Melon + Rice + Palm Oil + Ginger	40	37.74
Garri + Vegetable + Okro + Fish + Pepper	5	4.72
Total	106	100.00

The results in Table 2 show that two major enterprise combination patterns were identified among the respondents, namely sole enterprise and mixed enterprise systems. Only 11.67% of the marketers specialized solely in garri marketing, while the majority (88.33%) combined garri with other agricultural commodities. The dominance of mixed enterprise marketing indicates that respondents adopted diversification strategies to spread market risks, attract a wider customer base, increase sales opportunities, and achieve greater income stability.

The high prevalence of enterprise diversification among garri marketers may be attributed to the uncertain nature of agricultural markets, characterized by price fluctuations, seasonal variations in demand, and varying consumer preferences. By combining garri with other food items such as rice, vegetables, spices, fish, and palm oil, marketers are able to maximize the use of available resources and enhance their overall profitability.

The findings demonstrate that mixed enterprise marketing is a practical strategy for improving economic resilience among small-scale agricultural marketers. Therefore, encouraging efficient enterprise combinations and providing access to business support services may further enhance income generation and livelihood sustainability among garri marketers in the study area.

DISCUSSION

The outcomes of this survey revealed that the mean age of garri marketers was 43.92 years. This meant that most of the respondents were in their economically active age bracket. For this age group, physical strength, entrepreneurial ability and expertise needed to carry out efficiently the arduous operations associated in agricultural marketing are usually expected. The implication is that the respondents will most likely make sensible enterprise decisions, adopt successful marketing strategies and they will respond effectively to the changes in market conditions. This finding is in line with the previous findings suggesting agricultural marketing operations in Nigeria are mainly carried out by persons in the active and productive age groups[8].

The domination of female responders in garri marketing shows the important role women play in the cassava value chain, particularly in the processing, distribution and marketing of cassava products. High participation of women might be linked to the traditional role allocation in many rural areas where women are actively involved in food processing and local market operations, while males are more interested in primary agricultural production. The study underscores the

need to implement gender-sensitive interventions such as enhanced access to loans, training and market knowledge to promote women's economic engagement and enhance their profitability[9].

A majority of respondents were married, which indicates that household responsibilities could be a reason for engaging in income-generating activities like garri marketing. Married people are likely to have more financial responsibilities including maintaining a home, paying for children's education and other family expenses. This may motivate them to pursue sustainable and successful ventures. Furthermore, the stability in marriage may lead to more availability of family labour and support for the company activities[10].

The respondents' educational attainment was relatively high since the majority of marketers had at least one sort of formal education, the most prevalent level being secondary education. Education is playing a significant role in developing managerial capacity, record keeping, financial planning and access to market knowledge. Educated marketers are more likely to assess market prospects, utilise smarter business strategies and properly manage available resources, which may have a favourable impact on profitability. The findings show that literacy and progression in education are still major determinants of increasing the success of small scale agriculture enterprises[11].

The typical household size is five members indicating that family work could be a key source of support for garri marketing operations. More members of a household can contribute labour that decreases dependence on hired staff and may minimise costs of operation. However, greater household sizes could also raise household expenditure and financial obligations, thus requiring increased income creation through more efficient enterprise combinations and improved marketing methods [12].

The respondents had a great marketing experience an average of 21.50 years which indicated that they had a vast grasp of market operations, consumer preferences, price fluctuations and business management. Long years of expertise may strengthen the ability of the marketers to find profitable groups of enterprises, to manage risks and to make better investment judgements. Experienced marketers are also more likely to develop stronger relationships with clients and suppliers which may boost their competitive edge and profitability[13].

The significant percentage of the respondents that belong to cooperative societies demonstrates that collective action is still an essential approach among garri marketers in the research area. Cooperatives provide access to loans, market information, business networks, collective bargaining and other support services. These benefits can lessen marketing limitations, improve investment capacity and improve profitability of enterprise combinations. Thus, developing cooperative organisations could be an effective way for increasing the economic well-being of garri traders. The result of the study demonstrated that the patterns of single and mixed enterprise combination were practiced among the garri marketers in the study region. But most of the respondents chose the mixed enterprise combinations, showing that the diversification is the main technique to reduce the market risks and improve the income stability. This study implies that marketers appreciate the economic advantage of integrating garri with other food commodities and not relying on a single product[14].

The prevalence of the mixed enterprise combinations may be due to the necessity to distribute risks associated with price changes, variations in customer demand, seasonal shortages and other uncertainties common in agricultural marketing[15]. Selling complementing products like rice, pepper, veggies, fish, palm oil and other food items with garri will help marketers to attract a larger client base, maintain continuous sales and boost total income generation[16,17]. Diversification of enterprise also increases the efficient use of available marketing resources such as storage facilities, market locations, transportation and manpower. The mixing of many items helps marketers to maximise returns from available resources and minimise chances of loss of cash due to poor sales of one commodity. Thus, mixed enterprise combinations present a realistic way to enhance the economic resilience and sustainability of small-scale agricultural marketers[18].

CONCLUSION

The results show that extension services, cooperative organisations and entrepreneurial training courses can greatly increase the performance of garri marketing firms by promoting beneficial enterprise combinations. Policies that provide access to capital, market knowledge and business development services would further boost the capacity of marketers to adopt optimal enterprise combinations and achieve more profitability.

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