SOCIOECONOMIC ANALYSIS AND PROCESSING DYNAMICS OF SELECTED CASSAVA PRODUCTS IN FEDERAL CAPITAL TERRITORY, NIGERIA

Sheu Ahmad OLOHUNGBEBE*, and Sheu-Usman Oladipo AKANBI
Department of Agricultural Economics, Faculty of Agriculture, University of Abuja, Nigeria.
**Corresponding author: ahmad.olohungbebe@uniabuja.edu.ng.*
Department of Agricultural Economics and Farm Management, Faculty of Agriculture, University of Ilorin, Kwara State. akanbi.so@unilorin.edu.ng.

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ABSTRACT
This study investigated the socioeconomic analysis and processing dynamics of selected cassava products in Federal Capital Territory, Nigeria. One-hundred and forty (140) cassava processors were sampled using a multi-stage sampling technique. The study adopted descriptive statistics, net farm income, multiple regression and Henry Garrett ranking technique to achieve specific objectives. The result showed that 72% of garri processors, 86.36% of fufu processors, and 61.9% of cassava flour processors were female with mean ages of 43, 43, and 40 years respectively and the average years of processing experience for garri, fufu, and cassava flour processors were 15, 12, and 6 years, respectively. In addition, the return on investment (ROI) showed that cassava flour had the highest ROI at 79.83%. Fufu and garri followed with ROIs of 56.58% and 49.56%, respectively. Also, the coefficients for cooperative membership, and processing experience were positively significant ($p < 0.01$) for garri, fufu and cassava flour. High cost of transportation to the market and lack of access to the markets were critical constraints faced by the respondents. It ~~is~~ concluded that the three products studied—garri, fufu, and cassava flour were all profitable and recommended that offering advanced training for the educated and simplified methods for the less educated, and strengthening cooperatives for collective marketing, resource sharing and credit access (and encouraging non-members to join) are essential to lower input costs especially tuber prices and improve labor and packaging efficiency.

Keywords: Farm Budgeting Techniques, Cassava, multiple Regression Processing, and

Introduction

In many tropical African countries, including Nigeria, cassava is an indispensable food crop that plays a leading role in the food economy (Udemezue, Mbanaso, Obiajulu, & Igboanugo 2023). This is because it is highly resistant to drought, a high-yielding crop, and provides a reliable source of food and income for consumers and processors. It is also a good source of carbohydrates, fiber, and essential minerals, making it a valuable component of a balanced diet (Adetarami, Olagunju, Adekola, Johnson, & Akintola, 2022).

Nigeria's global leadership in cassava production is well established. In 2020, the country contributed approximately 20% of the world's total cassava output, surpassing the combined production of Indonesia, Thailand, and Brazil (Gbigbi & Chuks-Okonta, 2021). However, the true value of cassava lies not only in its volume but also in the economic opportunities created through value addition (Adeyemo, Koruwa, & Akinyosoye, 2018). Its production not only diversifies income sources for smallholder farmers but also reduces vulnerability to economic shocks by creating value-added products such as gari, fufu, cassava flour, and other derivatives. These products

have significant economic potential, contributing to poverty alleviation and rural development through their market demand and processing profitability (Angba, & Iton, 2020).

Cassava's versatility supports both household consumption and industrial applications. Processing stages—peeling, fermenting, drying, and frying—generate employment and diversify income sources, particularly in peri-urban and rural communities (Latif & Muller, 2015; Adeola, Idowu, Oyatogun, Adebowale, Afolabi, & Adigbo, 2020). A robust value chain system is essential for linking processors to markets, improving competitiveness, and ensuring the long-term sustainability of cassava-based enterprises (Immanuel, Jaganathan, Prakash, & Sivakum, 2024).

Despite its promise, cassava products in Abuja face several structural and operational challenges. These include inadequate storage infrastructure, poor road networks, limited access to agricultural financing, weak processing capacity, and fragmented market information (Kamara, Menkir, Abubakar, Tofa, Ademulegun, Omoigui, & Kamai, 2020).

~~2020).~~ Additionally, the absence of standardized grading systems and quality control mechanisms hampers product consistency and export readiness, reducing profitability for producers and processors alike.

Furthermore, production dynamics are affected by biological, technical, and market factors, including constraints related to production costs, processing technologies, and market access (Ojiako, Tarawali, Okechukwu, Chianu, Ezedinma, & Edet, 2018).

While national-level studies have explored cassava production efficiency (Chukwuji, Inoni, & Ike, 2007; Liverpool-Tasie, 2011; Adetarami et al., 2022), there is a notable gap in localized research focusing on Abuja's processing dynamics. Gwagwalada Area Council, in particular, is emerging as a key agricultural zone with significant cassava cultivation activity. Understanding the socioeconomic profiles of processors, processing practices, and challenges in this area is essential for designing targeted interventions that enhance productivity and improve livelihoods.

Therefore, this study aimed to conduct a comprehensive socioeconomic analysis and examine the production dynamics of selected cassava products in Abuja, with a focus on Gwagwalada Area Council. The specific objectives were to: (i) describe the socioeconomic characteristics of selected cassava processors; (ii) estimate the costs and returns of selected cassava product processors; (iii) evaluate socioeconomic factors affecting the profitability of selected cassava products processors; and (iv) describe constraints affecting selected cassava processors in the area.

Methodology

The Study Area

The study area was Gwagwalada town, the town is located between latitude 8.25° and 25° North of the equator and longitudes 6°45' and 7°45', east of Greenwich meridian. The town is considered to be among the oldest in the Federal Capital Territory (FCT). The FCT covers some 8000 Km^2 lying close to the geographical centre of the country. Its location is fully within the region generally referred to as the "middle belt" and North-Central geopolitical zone. It is bounded by Kaduna State to the North, by Nasarawa State to the South-East and by Kogi and Niger States to the South and South-West respectively. Gwagwalada is a large municipality and the headquarters of a large district in Central Nigeria. There are 10 wards in Gwagwalada Local Government Area namely: Dobi, Gwako, Ikwa, Paiko, Tungan-Maje, Gwagwalada centre, Ibwa, Ktunku, Staff quarters and Zuba. The main economic occupation of people in Gwagwalada Area Council of FCT, Abuja is farming. Some of the major agricultural products have been tuber crops and cereal such as cassava, sweet potatoes, yam, rice, guinea-corn, millet, barley, and so on (Achukwu, Sennuga, Bamidele, Alabuja, Bankole & Barnabas, 2023).

Sampling Procedures and Sample Size

A multi-stage sampling technique was employed for this study. In the first stage, Gwagwalada Area Council was purposefully selected due to its high population of cassava processors. In the second stage, out of the ten (10) wards in Gwagwalada Area Council, five (5) wards were randomly selected: Gwagwalada Centre, Kutunku, Dobi, Zuba, and Paiko. In the third stage, stratified sampling techniques were used to divide the population into three strata based on the type of cassava products they process. In the fourth stage, a simple random sampling technique was used to select 75 garri processors, 44 fufu processors, and 21 cassava flour processors, making a total sample size of 140 cassava processors from a sample frame of 216. The list of cassava processors was obtained from the Agricultural Development Programme (ADP), Abuja, and the sample size was determined using Yamane's (1967) formula.

$$n = \frac{N}{1+N(e)2} = 140$$

Where:
n= Sample Size of Selected Cassava Processors (Units)
N= Sample Frame of Selected Cassava Processors (Units)
e= Level of Precision (5%)

Method of Data Analysis

Four analytical tools were employed for this research:
(I) Descriptive statistics,
(ii) Farm budgeting technique (net farm income),
(iii) Multiple regression analysis, and
(iv) Henry Garrett ranking technique.

Descriptive Statistics

This analytical tool was used to describe the socioeconomic characteristics of the respondents, including gender, marital status, household size, age, level of education, cassava marketing experience, and cooperative membership. Descriptive statistics involved the use of means, frequency distribution tables, percentages, and other summary measures. This approach was used to achieve specific objective one (i): to describe the socioeconomic characteristics of selected cassava processors in the study area.

Farm Budgeting Techniques

The farm budgeting technique was employed to estimate the costs and returns of selected cassava products. This approach provides an overview of profitability by analyzing the relationship between revenue generated and the costs incurred during processing of the products. Following Oladeji et al. (2023), Net farm income is presented as:
Net Farm Income = TR – TC (Naira)
TR = P × Q (Naira)
where:
TR = Total revenue from the sales of selected cassava products
TVC = Total variable cost incurred in processing selected cassava products
Total Cost (TR) = Total variable cost (TVC) + Total fixed cost (TFC)
P = Price per unit of processed selected cassava products (Naira)
Q = Quantity of processed selected cassava products(Kg)
Rate of return on investment (ROI) = TR/TVC*100

Multiple Regression Analysis

A multiple regression following Jones, Barnett and Vagenes (2025) was used to evaluate socioeconomic factors affecting profitability of selected cassava products processors in the study area as objective (iii). The empirical model that was used in the study is specified as follows:

The model is implicitly stated as:

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, Ui)$

Where,
Y = Profitability level of garri, fufu and cassava flour
(Naira)
X_1 = Gender (Male=1, Female = 0)
X_2 = Age (Years)

X_3 =Marital Status (Married = 1,Otherwise = 0)
X_4 = Educational Level (Formal = 1, Otherwise = 0)
X_5 = Household Size (Numbers)
X_6 = Member of Cooperative Association (Yes =1, Otherwise = 0)
X_7 = Processing Experience (Years)
Ui = Random Error Term/Disturbance Error Term.
Explicitly, the functions are stated as:
$Y = a + bX_1 + cX_2 + dX_3 + eX_4 + cX_5 + dX_6 + eX_7 + Ui$

Henry Garrett Ranking Technique

According to this technique, cassava product processors specified the rank according to their priority level. This technique was used to describe the constraints faced by the cassava products processors in the study area as stated in specific objectives four (iv). The orders of merit given by the respondents was converted to rank by using the formula. To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. As per this method, respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula. Following, Dhanavandan (2016), the formula is stated thus:

$$\text{Percentage Score} = \frac{100(R_{ij} - 0.5)}{N_j}$$

Where;

R_{ij} = Rank i^{th} Item j^{th} Individual,

N_j = Number or Item Ranked by j^{th} Individual

The projected percentage position was translated into scores using Garrett's Table. The individual scores for each component were then totaled, and the total value of the scores as well as the mean values of the scores were computed. The elements deemed most significant are those with the greatest mean value.

Results and Discussion

Socioeconomic Characteristics of Selected Cassava Processors

The socioeconomic characteristics of interest in the study include age, sex, marital status, household size, level of education, marketing experience, and cooperative membership.

The results in Table 1 showed that 72% of garri processors, 86.36% of fufu processors, and 61.9% of cassava flour processors were female. This indicates that women were the dominant cassava product processors in the study area. This finding aligns with Onyemauwa (2012), who reported that women dominate cassava processing and marketing activities in the South-West region of Nigeria.

The age distribution revealed that approximately 33.33% of garri processors, 57.14% of cassava flour processors, and 43.18% of fufu processors fell within the 31–40 and 41–50 age brackets, with mean ages of 43, 43, and 40 years respectively. This suggests that cassava product processing in the study area is undertaken by energetic and resourceful individuals. These results are consistent with Ettah and Nweze (2016), who found a similar mean age of 43 years among cassava farmers. However, they differ from Kuye and Ettah (2016), who reported a mean age of 50 years for garri processors in Delta State, Nigeria.

The marital status results showed that 61.33% of garri processors, 52.57% of fufu processors, and 54.1% of cassava flour processors were married. This implies that the majority of cassava product processors rely on cassava processing as a major source of income to support their families. These findings are similar to those of Oladeji et al. (2023), who reported that most traders in the Kulodi cassava processing community of Oyo State, Nigeria, were married and used the business to support their families.

The results also showed that 66.67%, 59.09%, and 61.90% of garri, fufu, and cassava flour processors, respectively, had household sizes

ranging from 6 to 10 persons. The mean household sizes were 8, 9, and 5 persons, respectively. These figures suggest that cassava product processors had probably sufficient household labor to support processing activities, reducing the need to hire external labor. This finding agrees with Oluyole, Adebiyi, and Adejumo (2013), who noted that large household sizes are often due to high marriage rates and reflect a high dependency on business income.

The educational levels of respondents, as presented in Table 1, showed that 12%, 41.33%, and 14.29% of garri, fufu, and cassava flour processors, respectively, had primary education. About 44% of garri processors, 44.44% of fufu processors, and 19.04% of cassava flour processors had secondary education. Additionally, 41.33% of garri processors, 2.67% of fufu processors, and 57.14% of cassava flour processors had tertiary education. This indicates that most cassava product processors had some form of formal education, which could enhance their processing skills and improve income. This result contrasts with Akubo et al. (2023), who stated that cassava processing is primarily undertaken by uneducated individuals.

		Garri (n=75)			Fufu (n=44)			Cassava Flour (n=21)	
Variables	Frequency	Percentage ()	Mean	Frequency	Percentage ()	Mean	Frequency	Percentage ()	Mean
Sex									
Female	54	72		38	86.36		13	61.9	
Male	21	28		6	13.64		8	38.1	
Age			43 years			43 years			40 years
21-30	9	12		3	6.81		1	4.76	
31-40	25	33.33		12	27.27		12	57.14	
41-50	23	30.67		19	43.18		6	28.57	
51-60	11	14.67		8	18.18		2	9.52	
61-70	7	9.3		2	4.55		0	0	

Table 1 also revealed that 49.33% of garri processors and 50% of fufu processors had between 8–14 years of processing experience, while 57.14% of cassava flour processors had between 1–7 years. The average years of processing experience for garri, fufu, and cassava flour processors were 15, 12, and 6 years, respectively. These long years of experience may be attributed to the high demand and consumption of these products in the area.

Table 1 also showed the distribution of respondents based on cooperative membership. The results indicated that 82.67% of garri processors, 63.64% of fufu processors, and 80.96% of cassava flour processors were members of cooperative associations. Conversely, 17.33%, 36.36%, and 19.05% of garri, fufu, and cassava flour processors, respectively, were not members of any cooperative. These findings contradict with Mgbakor (2017), who reported that many processors do not belong to cooperative membership, which could otherwise enhance agricultural productivity.

Socioeconomic Characteristics of Selected Cassava Processors

	Garri (n=75)			Fufu (n=44)			Cassava Flour (n=21)		
Variables	**Frequency**	**Percentage ()**	**Mean**	**Frequency**	**Percentage ()**	**Mean**	**Frequency**	**Percentage ()**	**Mean**
Sex									
Female	54	72		38	86.36		13	61.9	
Male	21	28		6	13.64		8	38.1	
Age			43 years			43 years			40 years
21-30	9	12		3	6.81		1	4.76	
31-40	25	33.33		12	27.27		12	57.14	
41-50	23	30.67		19	43.18		6	28.57	
51-60	11	14.67		8	18.18		2	9.52	
61-70	7	9.3		2	4.55		0	0	
Marital Status									
Single	13	17.33		8	18.18		6	28.57	
Married	46	61.33		23	52.27		13	54.17	
Divorced	5	6.67		4	9.1		1	4.76	
Widowed	11	14.67		9	20.46		1	4.76	
Household Size			8 persons			9 persons			5 persons
1-5	11	14.67		12	27.27		5	23.81	
6-10	50	66.67		26	59.09		13	61.90	
11-15	8	10.67		4	9.09		1	4.76	
16-20	6	8.00		2	4.55		2	9.52	
Level of Education									
No Formal Education	2	2.67		9	12		2	9.52	
Primary Education	9	12		16	41.33		3	14.29	
Secondary Education	33	44		17	44		4	19.04	
Tertiary Education	31	41.33		2	2.67		12	57.14	
Marketing Experience									
1-7	6	8		7	15.9		12	57.14	6 years
8-14	37	49.33		22	50	12 years	6	28.57	
15-22	24	32	15 years	11	25		3	14.29	
23-29	4	5.33		3	6.81		0	0	
30-36	4	5.33		1	2.73		0	0	
Cooperative Membership									
Yes	62	82.67		28	63.64		17	80.96	
No	13	17.33		16	36.36		4	19.05	
Total	75	100		44	100		21	100	

Source: Computed from field data, 2025

Table 1: Cost and Returns in Processing Cassava Products in the Study Area

Table 2 presents the results of the average costs and returns for selected cassava products (garri, fufu, and cassava flour) in the study area. Cassava tuber cost constitutes the largest share of total production costs across all products, accounting for 19.60% (garri), 25.05% (fufu), and 26.19% (cassava flour). This underscores the importance of input price in determining overall profitability.

Labour costs were highest for fufu (₦4,130.83), followed by garri (₦2,830.00) and cassava flour (₦849.00) while packaging costs were also substantial, especially for fufu (₦7,679.50), reflecting its higher market demand and packaging requirements.The fuel used, firewood, fermentation, and grating costs varied across products, with fufu generally incurring higher processing expenses due to its more intensive preparation stages.

Table 1 showed that All products yielded positive net incomes, indicating profitability. Fufu had the highest NFI (₦37,002.03), followed by cassava flour (₦31,885.16) and garri (₦27,448.19). These findings align with those of Dorathy, Ojila, and Abu (2019), who reported that processing cassava into fufu and garri is a highly profitable enterprise for small-scale processors in Nigeria. Similarly, Adeola et al. (2020) emphasized that adding value to cassava enhances income generation and reduces post-harvest losses.

In addition, the return on investment (ROI) showed that cassava flour had the highest ROI at 79.83%, suggesting it is the most cost-efficient product. Fufu and garri followed with ROIs of 56.58% and 49.56%, respectively.

Table 2: Average Costs and Returns in Processing Cassava Products in the Study Area

Items	Garri (?) (n= 75)	Percentage of Total Cost	Fufu (?) (n= 44)	Percentage of Total Cost	Cassava Flour (?) (n= 21)	Percentage of Total Cost
Cost of cassava tuber	10,853	19.60	16,382.93	25.05	10,460.91	26.19
Fuel	2,605	4.70	2,559.83	3.92	1,494.27	3.74
Firewood	3,039	5.49	5,119.67	7.83	2,988.55	7.48
Peeling	2,171	3.92	4,095.73	6.26	2,390.84	5.99
Grating	3,907	7.05	3,071.80	4.70	2,091.98	5.24
Sieving	2,171	3.92	2,559.83	3.92	1,494.27	3.74
Dewatering	3,039	5.49	2,559.83	3.92	1,494.27	3.74
Fermentation & soaking	4,341	7.84	4,095.73	6.26	2,988.55	7.48
Water supply	2,605	4.70	3,071.80	4.70	1,494.27	3.74
Packing	4,341	7.84	7,679.50	11.75	2,988.55	7.48
Labour cost	2,830.00	5.11	4,130.83	6.32	849.00	2.13
Transportation cost	443.60	0.80	825.83	1.26	515.30	1.29
Bags	375.60	0.68	266.67	0.41	306.00	0.77
Advertising (communication) Cost	0	0.00	383.33	0.59	0	0.00
Security	450.72	0.81	559.92	0.86	500.01	1.25
Rent	7,428.06	13.41	7,428.06	11.36	7,428.06	18.59
Measuring Bowl and Cup	457.17	0.83	333.33	0.51	451.33	1.13
Total Variable Costs (A)	**54,937.98**		**65,057.98**		**39,483.84**	
Total Fixed Costs (B)	**457.17**		**333.33**		**451.33**	
Total Cost (A+ B)= C	**55,395.15**		**65,391.31**		**39,935.17**	
Total Revenue (TR) = F	**82,843.34**		**102,393.34**		**71,820.33**	
Net Farm Income (NFI) (E=F-C)	**27,448.19**		**37,002.03**		**31,885.16**	
Return on Investment	**49.56%**		**56.58%**		**79.83%**	

Source: Computed from field data, 2025

Factors Affecting Selected Cassava Products of the Respondents

Table 4 presents the socioeconomic factors influencing the profitability of selected cassava products processors in the study area. A multiple linear regression model was found to provide the best fit for the data.

The results indicate that the coefficients for age, household size, cooperative membership, and processing experience were positively significant at the 1% level ($p < 0.01$) in relation to the profitability of garri processing. This implies that a unit increase in any of these variables is associated with a corresponding increase in profitability, proportional to the magnitude of each coefficient. In garri processing, an R-Square (R^2) of 0.735 indicates that 73.50% of the variation in the profitability of garri was explained by the explanatory variable included in the model.

Similarly, the coefficients for marital status, cooperative membership, and processing experience were positively significant at the 1% level ($p < 0.01$) for fufu processing. This suggests that an increase in any of these variables positively affects the profitability of fufu processors in the study area. In other words, the regression model for fufu processing yields an R^2 of 0.712, meaning that about 71.2 % of the differences in fufu profitability can be accounted for by the variables included in the model.

For cassava flour processing, the coefficients for household size, cooperative membership, and processing experience are also positively significant at the 1% level ($p < 0.01$), indicating that increases in these variables enhance profitability. However, the coefficient for marital status in cassava flour processing is negatively significant at the 10% level ($p < 0.10$), implying that an increase in marital status—such as transitioning from single to married—may reduce profitability. This could be due to increased household responsibilities or reduced time available for processing activities. In addition, the regression's R^2 of 0.748 shows that roughly 74.8 % of the differences in cassava-flour profitability can be accounted for by the variables included in the model.

Table 3: Socioeconomic Factors Affecting Selected Cassava Products of the Respondents.

Variables	Garri		Fufu		Cassava Flour	
	Coefficient	T-value	Coefficient	T-value	Coefficient	T-value
Gender	0.121	0.917	0.098	0.695	0.045	1.452
Age	0.482*	5.296	-0.152	-1.101	0.312	3.234
Marrital Status	-0.173	-1.202	0.451*	4.747	-0.062**	-1.879
Educational Level	0.089	0.695	0.076	0.567	0.038	1.267
Household Size	0.315*	3.088	0.284*	2.630	0.193*	2.991
Member of Cooperative Association	0.294*	3.379	0.278*	3.022	0.201*	3.355
Processing Experience	0.267*	2.724	0.037	0.306	0.172*	6.615
Constant	5.832	2.758	4.912	2.128	1.102	5.566
R-Squared	0.735		0.712		0.748	
Adjusted R-Squared	0.623		0.703		0.631	

*** Significant at 1%, and ** Significant at 10% levels of significant**
Sources: Computed from Field data, 2025

The Constraints Faced by Cassava Product Processors in the Study Area

Table 4 presents the constraints faced by cassava product processors in the study area, analyzed using the Henry Garrett ranking technique. The identified constraints include lack of access to markets, poor product pricing, inadequate storage facilities, high purchasing costs, limited access to credit, product spoilage, high transportation costs to markets, poor marketing infrastructure, and low business profitability.

The scale values were determined using the Garrett scale conversion chart, with rankings assigned by cassava product processors. Percentage scores were computed for each rank (1–9) using the Henry Garrett method. These scores were then translated into scale values: 80, 69, 61, 55, 50, 44, 38, 31, and 19, respectively. Each scale value (x) was multiplied by the number of respondents (F) to obtain the score value (Fx) for each factor. The sum of these score values across ranks yielded the final score for each constraint. The mean score was then calculated to determine the relative importance of each constraint.

Based on the Henry Garrett ranking technique, "High cost of transportation to the market" emerged as the most critical constraint, with a Garrett score of 9,754 and an average score of 69.67, ranking first. This finding aligns with Ani, Agbugba, and Baiyegunhi (2013), who reported that poor rural road conditions hinder the transportation of fresh cassava tubers and products, thereby affecting profit margins.

"Lack of access to markets" ranked second with a Garrett score of 6,984 and an average score of 49.89, followed closely by "Poor marketing facilities" in third place with a score of 6,975 and an average of 49.82. "Poor pricing of products" ranked fourth (Garrett score: 6,886; average: 49.18), while "Low profit from business" ranked fifth (Garrett score: 6,722; average: 48.01).

Other constraints included "Poor storage facilities" (ranked sixth; Garrett score: 6,594; average: 47.10), "High purchasing price" (ranked seventh; Garrett score: 6,198; average: 44.27), and "Lack of credit facilities" (ranked eighth; Garrett score: 6,160; average: 44.00). "Product spoilage" was ranked ninth, also with a Garrett score of 6,160 and an average score of 44.00.

Table 4: Constraints Faced by the Cassava Product processors in the Study Area

Constraints	Ranks Given by Cassava Product processors									Total	Mean	Ranking
	1st 80	2nd 69	3rd 61	4th 55	5th 50	6th 44	7th 38	8th 31	9th 19			
Lack of access to market	7 (560)	21 (1449)	28 (1708)	14 (770)	10 (500)	12 (528)	23 (874)	10 (310)	15 (285)	6984	49.89	2nd
Poor pricing of the products	1 (80)	18 (1242)	22 (1342)	16 (880)	32 (1600)	16 (704)	7 (266)	20 (620)	8 (152)	6886	49.18	4th
Poor storage facilities	12 (960)	9 (621)	16 (976)	21 (1155)	7 (350)	28 (1232)	17 (646)	7 (217)	23 (437)	6594	47.10	6th
High purchasing price	4 (320)	14 (966)	10 (610)	15 (825)	22 (1100)	19 (836)	15 (570)	16 (496)	25 (475)	6198	44.27	7th
Lack of credit facilities	5 (400)	12 (828)	7 (427)	18 (990)	29 (1450)	20 (880)	9 (342)	28 (868)	12 (228)	6160	44.00	8th
Product spoilage	5 (400)	11 (759)	14 (854)	17 (935)	15 (750)	17 (748)	21 (798)	13 (403)	27 (513)	6160	44.00	9th
High cost of transportation to the market	85 (6800)	18 (1242)	9 (549)	7 (385)	7 (350)	2 (88)	4 (152)	3 (93)	5 (95)	9754	69.67	1st
Poor marketing facilities	11 (880)	24 (1656)	9 (549)	24 (1320	8 (400)	12 (528)	18 (684)	26 (806)	8 (152)	6975	49.82	3rd
Low profit from business	13 (1040)	10 (690)	28 (1708)	6 (330)	10 (500)	13 (572)	28 (1064)	15 (465)	17 (323)	6722	48.01	5th

Source: Computed **from field data, 2025**

Figures in parentheses are estimated using *Fx* = Product of frequency of respondents and scale value.

Conclusion

Based on the findings of this study, it is concluded that cassava processing is predominantly undertaken by women, with most processors falling within the economically active age. The majority had formal education and belong to cooperative associations, which positively influence profitability. Among the three products studied—garri, fufu, and cassava flour—all were profitable, with fufu yielding the highest net income. Key factors such as household size, cooperative membership, and processing experience significantly affect profitability. However, processors face constraints including poor market access, inadequate infrastructure, and limited credit facilities.

Recommendations

Targeted interventions for sustainability and resilience are advised, such as gender-sensitive policies to empower the women who dominate the industry and youth-focused skill programs for energetic middle-aged workers. Since the majority of processors are married and depend on cassava for family support, expanding microfinance, credit, and welfare schemes while leveraging large household sizes for family-based enterprises, providing advanced training for the educated and simplified methods for the less educated, and strengthening cooperatives for collective market expansion, particularly for fufu.

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