ANALYSIS OF PROFITABILITY OF CASSAVA ENTERPRISES IN RURAL AREAS OF OYO STATE

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ABSTRACT

This study analyzed profitability of cassava enterprises in rural areas of Oyo state, Nigeria. Multistage sampling procedure was used to select 160 respondents for the study. This study assessed the respondents' enterprise characteristics, sources of information, constraints and profitability of cassava enterprise. Data collected with interviewed schedule were analyzed using descriptive and inferential statistics (PPMC and ANOVA) at p=0.05. Results show that most respondents belong to cassava farmers association (50.6%) and source information through co-entrepreneurs (69.4%). Most producers (49.4%), processors (51.4%) and marketers (92.1%) had between 6 and 9 hectares of land, large processing units and were retailers respectively. The entrepreneurs were constrained by inadequate credit facilities (WS=176.9) and cassava glut (WS=174.3); and was high for 55% of the respondents. Cassava processing was the most profitable enterprise. Farm size (r=0.568), Number of processing units (r=0.532) and Marketing type (r=-0.509) and constraints were significantly related to profitability. Cassava entrepreneurs should pull their resources together for found availability while the producer should endeavor to scale up using value addition strategies for the optimum profitability status.

Keywords: Cassava entrepreneurs, Value addition strategies, marketing type, Cassava glut, and Cassava farmers

INTRODUCTION

Cassava has been plating significant roles in Nigeria's Agricultural sector. It has been used to diversify and boost the country's economy. Cassava comparative production advantage over the other staples encourages its production most especially by rural people. Cassava is a crop that has high ability to increase people's economic, reduces their poverty level and at the same time contributes significantly to Gross Domestic Product (GDP) of the country despite its low improved varieties and input in terms of production **(**Osun, Ogundijo and Bolarinwa, 2014). This has also led the Federal Government of Nigeria, state government and NGO's to introduce different programmes in order to boost the country's economy, increase production, reduce poverty, provides food security and profitability of those in the value-chain.

A vast expanse of research and literature exist on the profitability of each of the cassava enterprises, for example Okpeke and Onyeagocha (2015) analyzed the profitability of processing cassava tubers into *Garri.* However, the studies tended to concentrate on profitability level of individual or two enterprise(s) without affirming the profit difference among cassava production, cassava processing and Garri marketing.

Therefore, this study ascertained the profitability differences across the three enterprises in order to ascertain the enterprise that is most profitable among cassava production, processing and Garri marketing in terms of input and output ratio.

METHODOLOGY

The study was carried out in rural areas of Oyo state, Nigeria. Multistage sampling technique was used to select 160 respondents for the study. Data were collected using structured questionnaire. Data were analyzed using both descriptive (frequencies, percentages, mean and weighted score) and inferential statistics (PPMC and ANOVA at p=0.05).

RESULTS AND DISCUSSION

Enterprises characteristics of cassava entrepreneurs

The result in Table 1 shows that 49.4% of cassava producers had between 6 and 9 hectares of land, 51.4% of the processors had large processing units and almost all (92.1%) of the marketers were retailers.

Table 1: Distribution of cassava entrepreneurs by their enterprise's characteristics

Variable	Frequency	Percentage
Area of farm size		
2-5	10	11.8
6-9	42	49.4
10-13	30	35.2
≥14	2	2.4
Total	84	
Number of processing units		
Small	18	48.6
Large	19	51.4
Total	37	
Marketing type		
Whole seller	3	7.9
Retailer	35	92.1
Total	38	

Source: Field survey (2019)

Sources of information

Results in Table 2 shows that co-entrepreneurs (69.4%) were the major source of information for cassava entrepreneurs. This can be as a result of the social interaction that occurs among the entrepreneurs during their association meeting.

Table 2: Sources of enterprise information (n=160)

Source of information	Frequency	Percentage
Co-entrepreneurs	111	69.4
Ministry of agriculture	17	10.6
Extension agents	21	13.1
Customers	11	6.9

Source: Field survey (2019)

Constraints faced by cassava entrepreneurs

Table 3 shows that inadequate credit facilities (ws=176.9) ranked first of the constraints faced by the entrepreneurs, this was followed by cassava glut (ws=174.3).

Table 3: Distribution of cassava entrepreneurs based on the ranking of the constraints to their enterprises production

Constraints	Major constraint	Minor constraint	Not a constraint	Weighted score
Inadequate credit facilities	82.5	11.9	5.6	176.9
Cassava glut	80.6	13.1	6.3	174.3
Inadequate extension services	53.8	19.3	26.9	126.9

Source: Field survey (2019)

Table 4 reveals that the profit in cassava production, processing and *Garri* marketing were ₦628,234.12; ₦1,101,162.2 and ₦607,860.00 respectively with *Garri* processing having the highest profitable enterprise.

Table 4: Distribution of cassava enterprises (₦) according to their Profitability

Variable items	Mean	Minimum	Maximum	Standard deviation
Processing profit	1,101,162.2	283,920.00	8,880,000.00	1419193.7131
Production profit	628,234.12	1,850,000.00	1,850,000.00	528112.07985
Marketing profit	607,860.00	42,240.00	2,745,600.00	758082.18576

Source: Field survey (2019)

Test of relationship between some enterprise characteristics and their enterprises profitability

Result of PPMC in Table 5 reveals that entrepreneurs' farm size (r=0.568, p=0.000) Number of processing unit (r=0.532, p=0.001) and Marketing type (r=-0.509, p=0.001) were significantly related to profitability

Table 5: PPMC for test of relationship between enterprise characteristics and their profitability.

Variable	N	r-value	p-value	Decision
Area of farm size per hectare	85	0.568	0.000	Significant
Number of processing units	37	0.532	0.001	Significant
Marketing type	38	-0.509	0.001	Significant

Source: Field survey (2019)

Result of PPMC in Table 6 reveals that there was significant relationship between constraints to cassava enterprise (r=0.163, p=0.040) and profitability.

Table 6: PPMC for test of relationship between constraints and enterprises profitability (n=160)

Variable	r-value	p-value	Decision
Constraints to enterprises vs. Profitability	0.163	0.040	Significant

Source: Field survey (2019)

Test of profitability difference among the cassava enterprises

The result in Table 7 shows that there was significant difference in the profitability of cassava enterprises (F=4.383, p=0.014). Further analysis on LSD post-hoc test also shows that there was a statistically significant difference among the enterprise's profitability.

Table 7: ANOVA analysis: profitability difference among cassava enterprises.

	Sum of squares	Df	Mean square	F-value	p-value
Between Groups	6.543E+012	2	3271563575556	4.383	0.014
Within Groups	1.172E+014	157	746492139064.2		
Total	1.237E+014	159			

Source: Field survey (2019)

CONCLUSIONS AND RECOMMENDATIONS

Cassava producers practiced on small areas of land, *Garri* processors had large processing units and most of the *Garri* marketers were retailers. The entrepreneurs sought information from co-entrepreneurs, major constraint was inadequate credit facilities. Cassava (*Garri)* processing was the most profitable enterprise. Significant relationship existed between respondents' farm size, Number of processing unit, marketing type, constraints and profitability. Cassava entrepreneurs should pull their resources together for found availability while the producer should endeavor to scale up using value addition strategies for the optimum profitability status.

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