Prospect of Suya Production in Maiduguri Metropolis of Borno State, Nigeria

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ABSTRACT--- ***Although; many people may be engaged in Suya production in Nigeria, the industry is basically backward and has a low improvement rate in terms of resource use efficiency and marketing. Therefore, this study examined the prospect of Suya production in Maiduguri Metropolis of Borno state. Primary data were obtained from the respondents using questionnaires. Forty Tsire and forty Balangu producers were interviewed and the data obtained were analyzed using Gross Margin Analysis, productivity indices and likert scale. The findings revealed that the estimated gross margin per ton of meat used in preparation of Tsire and Balangu was ₦1049516.82 and ₦608251.38 respectively. The returns to labor were ₦43.7 and ₦54.7 for Tsire and Balangu respectively while return to material were ₦2.5 and ₦1.9 for Tsire and Balangu respectively. Poor storage facilities with 1.67 point was the major problem for Tsire producers while high cost of facilities and credit inaccessibility each with 2.0 point are the major problems of Balangu producers. The above finding showed that Suya production is profitable and a good source of income to the producers. The study recommends provision of micro credits, storage facilities and subsidies on inputs to boost the scale of production, thereby increasing their returns.***

Keywords--- Balangu, Suya, Tsire, Gross Margin Analysis, Productivity indices, likert scale.

1. INTRODUCTION

Nigeria is a major hub of animal product consumption in West Africa and also one of the largest livestock raising country in the region (Bonnet et al, 2011). There is an increasing demand for animal protein thus; meeting the increasing domestic demand and access to this flourishing market is major economic stake for its populace. One of such meat products that has gained popularity and has become a major source of income for its producers in Nigeria, as well as in most African countries is Suya. An intensive effort is therefore required for Suya product development and large-scale commercial production for income generation to alleviate poverty in Nigeria.

Suya (Hausa word for roasted meat product) is a spicy barbecued, smoked or roasted meat product, originated from the northern Nigeria, where rearing of cattle is an important source of livelihood for the people (Edema et al, 2008). Suya consumption has extended to other parts of the country (Inyang et al., 2005). In big cities and small towns, Suya vendors have become very prominent with their grill stands becoming very busy from about midday until late at night. It is gradually making its way into elite circles where it has become a delicacy served at parties. Tsire and Balangu are the two products most commonly referred to as Suya in trade.

Tsire is roasted, boneless mutton, beef or goat meat that is cooked around a glowing fire in which the meat pieces are staked on wooden stick (Alonge and Hiko, 1987). Balangu is boneless meat of sizeable cut which is roasted by placing it on a wet brown paper on a wire mesh. Groundnut oil, spices and salt are added during roasting and the meat is continuously turned until it is well roasted (Farouk, 1985).

Suya have also formed the basis of the Nigerian livestock industry, provides employment and income to the populace. Although many people may be engaged in Suya production in Nigeria, the industry is basically backward and has a low improvement rate in terms of resource use efficiency and marketing (Igene and Agboola, 2003).The study, therefore, examined the prospect of Suya production in Maiduguri metropolis of Borno state. Specifically, the study was designed to access the profitability of Suya producers in the study area as well as determining the efficiency of resource use in Suya production.

2. METHODOLOGY

Study Area

The study was carried out in Maiduguri metropolis of Borno state. It is made up of Maiduguri metropolitan council and Jere local government council. The study area has an approximated land area of 69,436kilometers which lies

within latitude 12^0N and longitude 13^0E (NBS, 2007).The state occupies greater part of the Chad basin and shares borders with the Republic of Niger to the north, Republic of Chad to the north-east and Republic of Cameroun to the east. The climate is hot and dry for the greater part of the Sahel savannah. The major crops grown are millet, cowpea and sorghum others include soybeans, cotton, groundnuts, rice, sesame and wheat. The state is prominent in fishing apart from crop farming; it also has great potentials for animal husbandry and feeds production given the large herds of cattle, sheep/goats and poultry reared. The state is believed to have the largest livestock centre in West Africa (AIAE, 2007)

Sampling Techniques and Data Collection

Two stage random sampling procedure was employed for selecting the respondents. The first stage involved the selection of two wards each from the two local government councils and the second stage is the selection of ten Tsire and Balangu producers, making a total of forty Tsire and forty Balangu producers.

Data analysis

Only primary data obtained from the different producers through an interview using structured questionnaires were used to generate information for the study. The data obtained were analyzed using descriptive statistics and inferential statistics. The descriptive statistics used were frequency counts and percentages while the inferential statistics employed were Gross Margin Analysis, productivity indices and Likert scale.

Gross margin model

Gross Margin Analysis was used to determine profitability of the Suya processors in the study area.
The gross margin and net farm income were estimated as equations (1) and (2)

GM = TR – TVC……..... (1)
NFI = GM – TFC…… (2)
Where;
GM = Gross Margin (₦)
TR= Total Revenue (₦)
TVC = Total Variable Cost (₦)
NFI = Net Farm Income (₦)
TFC = Total Fixed Cost (₦)

Other estimation from the gross margin was profit margin. The profit margin (%) is the ratio of profit/net farm income to total revenue. The profit margin (%) was estimated as equations (3).

Profit margin (%) = profit / total revenue ---------- (3)

Productivity index

Productivity Indices shows the output earning per naira expenditure on the resources used. The resource productivity for labour and material used were estimated as equations (4) and (5).

Resource productivity

- Labour productivity(₦) = total revenue / Labour input ---------- (4)
- Material productivity(₦) = total revenue / material input ----------(5)

Beef processors encounter some challenges when carrying out their activities. The following constrain were listed for the processors to know their perception towards the challenges. These are: credit inaccessibility, land inaccessibility, lack of infrastructures, high cost of facilities and poor storage facilities. Their perception was assessed using five points Likert scale which is translated as 1- Very Severe, 2-Severe, 3-Undecided, 4-Just Severe and 5-Not Severe.

3. RESULTS AND DISCUSSION

Socio-economic characteristics of respondents

Table 1 shows the distribution of respondent by Socio-economic characteristics in the study area. The result reveals that all the producers were male, implying that females are not involved in Suya production in the area. This could be due to the culture of the people and nature of the business which normally boom at night. The studies further showed that majority (78.75%) of the producers were married. This means that Suya production is contributing to their households' income thus, improving their families' welfare. More than 60% of the producers were within the youthful age of 20-40 years and therefore, greater potential to increase productivity. This will enhance the living standard of the youths, giving the necessary encouragement and incentives. The table also shows that majority (53.75%) of the producers had only Quranic education, 28.75% had primary education, 15% had secondary education and only 2.5% had Tertiary education. This implies that improved technology will be difficult to be adopted since producers lack adequate education thus; production will continue to be done traditionally. The table revealed that most (83.75%) of the producers inherited the business while only 16.25% engaged in it as a means of employment. It also revealed that 36.25% of them have been in the business for 11-20 years, 28.75% have been in the business for 21-30 years, 17.50% have spent 1-10 years, 11.25%

have spent 31-40 years while 6.25% spent more than 40 years.

Table 1. Socio-economic characteristics of the respondents

Variables	Tsire		Balangu		Overall	
	Freq	Percent.	Freq	Percent.	Freq	Percent
Sex						
Males	40	50	40	50	80	100
Females	0	0	0	0	0	0
Marital status						
Married	34	42.5	29	36.3	63	78.8
Single	6	15	11	27.5	17	21.2
Divorced	0	0	0	0	0	0
Widowed	0	0	0	0	0	0
Age						
20-30	5	12.5	8	20	13	16.2
31-40	19	47.5	19	47.5	38	47.5
41-50	8	20	8	20	16	20
51-60	7	17.5	5	12.5	12	15
61-70	1	2.5	0	0	1	1.3
Level of Education						
No Formal	0	0	0	0	0	0
Qur'anic	21	52.5	22	55	43	53.8
Primary	9	22.5	14	35	23	28.7
Secondary	8	20	4	10	12	15
Tertiary	2	5	0	0	2	2.5
Household Size						
1-5	10	25	15	37.5	25	31.3
6-10	8	20	7	17.5	15	18.7
11-15	10	25	6	15	16	20
16-20	9	22.5	8	20	17	21.3
21-25	3	7.5	4	10	7	8.7
Secondary Occupation						
Farming	8	20	10	25	18	22.5
Trading	5	12.5	0	0	5	6.3
Artisan	0	0	0	0	0	0
None	27	67.5	30	75	57	71.3
Motivation of the respondents						
Profitability	1	2.5	0	0	1	1.3
Family business	33	82.5	33	82.5	66	82.5
Employment	6	15	7	17.5	13	16.2
Years of Experience						
1-10	5	12.5	9	22.5	14	17.5
11-20	10	25	19	47.5	29	36.3
21-30	17	42.5	6	15	23	28.7
31-40	3	7.5	6	15	9	11.3
41-50	5	12.5	0	0	5	6.3

Source: Field Survey, 2014

Costs and returns per tons in Suya production

Table 2 shows that for one ton of meat processed, 800kg of Tsire was produced and the total revenue of 800kg of Tsire was ₦1,898,550.73 while the total gross margin was ₦1,049,550.82. For one ton of meat processed, 750kg of Balangu was produced and the total revenue of 750kg of Balangu was ₦1,392,367.91 while the total gross margin was ₦608,251.38. This is an indication that suya production is profitable in the study area. Among the cost components, cost of material input had the largest share of the total cost (88%), followed by labor input (5%) for Tsire while Balangu had 94% and 3% for material inputs and labor input respectively. This result corroborates the findings of Olumba (2014), which stated that the prime share of the total cost of production is the material inputs, followed by labor input.

The profit margin percentage was 54.8% for Tsire and 43.7% for Balangu. These measures of performances indicate that Suya production in the study area is viable and profitable. However, Tsire was the most profitable. Balangu production was the least profitable, reason being that, in spite of its shorter shelf life, the quality of meat used in preparing it is low, which results in low price and subsequently low return. This agrees with the work of Illiyasu et al. (2008), which stated that Suya production and marketing is profitable in Maiduguri Metropolitan Council of Borno State.

Table 2. Costs and returns per ton in Suya production

	Types of Suya	
	Tsire value/ton(₦)	**Balangu value/ton (₦)**
Total Revenue	1,898,550.73	1,392,367.91
Variable inputs	700,000	700,000
Fresh meat	24,637.57	13,600.78
Spices	13,929.15	11,350.29
Packages	20,088.57	14,872.8
Firewood	43,473.26	25,468.40
Labour	15,901.77	15,901.77
Transportation	40003.59	2159.24
Miscellaneous		
	849033.91	783353.28
Total Variable Costs		
	1,006.41	763.25
Fixed cost		
Rent		
	1049516.82	609014.63
Gross margin	54.8	43.7
Profit margin %	1,039,510.41	608,251.38
Net farm Income (profit)		

Source: Field Survey, 2014

Productivity analysis

Analysis of the resource productivity of labor and material (other variable cost) shows that for every one naira invested on labor in producing Tsire, an output earning of ₦43.7 was realized, while material was ₦2.5 (Table 3). In the case of Balangu, for every one naira invested on labor, an output earning of ₦54.7 was realized while ₦1.9 was for material (Table 3). The findings therefore indicate that labor was more efficiently utilized in producing Balangu than Tsire. Likewise, material was more efficiently utilized in producing Tsire than Balangu.

Table 3: Result of productivity analysis.

Resource	**Tsire Value (₦)**	**Balangu Value (₦)**
Total revenue	1,898,550.73	1,392,367.91
Labour input	43,473.26	25,468.40
Material inputs	758655.29	739823.87
Resource Productivity:		
Labour Productivity	1898550.73 / 43473.26 =43.7	1392367.91 / 25468.40 =54.7
Material Productivity	1,898,550.73 / 758655.29 =2.5	1392367.91 / 739823.87 =1.9

Source: Field Survey, 2014

Challenges faced by Tsire processors

Five possible problems were listed for the respondents and their perception was ranked using Likert scale. The result as shown in table 4 revealed that the major problem faced by Tsire producers was poor storage facilities, it was ranked first with 1.67 point this is followed by lack of infrastructure with 1.86 point, credit inaccessibility with 2.0 point, land inaccessibility with 2.38 point and high cost and high cost of facilities with 2.57 point. The producers identified inadequate power supply and improper storage facilities as a cause of Tsire spoilage thus, leading to major losses.

Table 4: Challenges faced by tsire processors.

Challenges	1	2	3	4	5	**Perception**	**Ranking**
Poor storage facility	8	16				1.67	1
Lack of infrastructures	8	16	4			1.86	2
Credit inaccessibility	4	12	4			2	3
Land inaccessibility	4	20	8			2.38	4
High cost of facilities		16	8	4		2.57	5

Source: Field Survey, 2014

Challenges Faced by Balangu processors.

Meanwhile, Table 5 showed that Balangu producers identified high cost of facilities and credit inaccessibility as their major problems since most of them had low capital. These were ranked first with 2.0 point and were followed by poor storage facilities with 2.2 point, and lack of infrastructure and land inaccessibility with 2.5 pieces.

Table5: Challenges Faced by Balangu processors.

Challenges	1	2	3	4	5	**Perception**	**Ranking**
High cost of facilities	10	10		5		2	1
Credit inaccessibility	5	20	5			2	1
Poor storage facility	5	15		5		2.2	3
Lack of infrastructures		20	5	5		2.5	4
Land inaccessibility	5	15		10		2.5	4

Source: Field Survey, 2014

4. CONCLUSION

The study has indicated that Suya production in the Borno State is profitable though the production of Tsire is most profitable than Balangu production. The study further showed that storage facilities were the major problems faced by Tsire producers while high cost of facilities and credit inaccessibility were the major problems of Balangu producers in the study.

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