



## **COSTS AND RETURNS ANALYSIS FOR SUYA AGRIBUSINESS IN SABON GARI LOCAL GOVERNMENT AREA OF KADUNA STATE, NIGERIA**

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### **ABSTRACT**

The study aimed at assessing the costs and returns of suya agribusiness in Sabon Gari Local Government Area of Kaduna State, Nigeria. A total of 50 suya agribusiness were sampled for the study. Data were collected using semi-structured questionnaires and analysed using descriptive statistics, net return and efficiency model. The findings revealed an average profit of ₦10, 115.94 and an efficiency ratio of 3.23 estimated for suya agribusiness in the study area. Major constraints that militated against suya agribusiness enterprise includes insufficient capital, poor beef storage facilities and rising and fluctuation in meat cost. The study concluded that suya agribusiness in the study area is profitable though there is room for improvement. It was recommended that Government agencies and non-governmental organizations (NGOs) should build the capacity of suya agribusiness entrepreneurs on better practices; forming groups and cooperatives to enable them obtain formal credit; develop extension publications on suya making and marketing practices for the entrepreneurs; and encouraging youths to venture into suya agribusiness to minimize youth unemployment.

**Keywords:** Agribusiness, Costs, Nigeria, Profitability, Returns, Suya, *Tsire*.

### **INTRODUCTION**

Nigeria's population has increased rapidly from 55 million according to the 1963 census figures, through 140 million as contained in the report of the 2006 national census of Nigeria to what is now estimated at more than 170 million (Ammani *et al.*, 2015). The rapid growth in the country's population has increased substantially with the level of poverty in the country. According to National Bureau of Statistics (NBS, 2020), more than 40% of Nigeria's population were classified as poor. In other words, 83 million Nigerians has real annual per capita expenditure below ₦137,430.00. This reported figure did not include that of insurgents infested Borno State.

As observed by the Africa Commission (2005), poverty reduction through growth requires a focus on the indigenous private sector, which is composed of a myriad of informally operated enterprises, and on finding ways to help them thrive and grow. As mentioned earlier, poverty and unemployment levels in Nigeria are on the high side. Experts have pointed to entrepreneurship as panacea to the dual evil of poverty and unemployment in Nigeria.

The relevance, and importance, of entrepreneurship in economic growth and development cannot be overemphasised. It encourages wealth creation and income distribution (Hisrich and Peters, 2002); raises the quality and standard of living of the people (Adejumo, 2001); stimulates economic growth, employment generation and economic empowerment (Thomas and Mueller, 2000; Acs and Malecki, 2003; Lichtenstein and Lyons, 2001; and Kareem, 2015); and serves as a viable utility vehicle for tackling the problem of poverty and unemployment (Abubakar, 2012).



However, any attempt at reducing poverty and unemployment levels through entrepreneurship will depend on many factors, among which is likely to be the profitability and efficiency of small-scale private enterprises. Profits make all business enterprises, including the agribusiness enterprises attractive to new entrants. This study is a modest attempt at contributing to the literature on the profitability of suya agribusiness enterprises in this part of Nigeria. The question that arose for the paper was; what was the profitability of suya agribusiness enterprises in the study area? The specific objectives were to:

- i. describe the socio-economic profile of suya agribusiness;
- ii. estimate the distribution of suya agribusiness costs components;
- iii. determine costs and returns for suya agribusiness;
- iv. estimate the efficiency of agribusiness; and
- v. identify the constraints in suya agribusiness.

*Tsire* is known as suya in the southern parts of Nigeria. It is produced from round parts of beef meet, trimmed, cut into small pieces, stacked on wooden sticks, spiced with grounded groundnut cake-garlic-salt mix with groundnut oil and roasted by arranging the stacked beef meet sticks around a glowing fire (Judge *et al.*, 2002). This ready-to-eat Nigerian delicacy enjoyed wide consumer acceptance and is prepared and retailed along streets, at clubhouse, restaurants, airports, and institutions (Igene and Mohammed, 1983) in Nigeria, Cameroon, Senegal, Mali and Chad Republic (Igene and Agboola, 2003).

## **MATERIALS AND METHODS**

### **The Study Area**

Kaduna State is located between latitudes 9 08' and 11 07'N and longitudes 6 10' and 8 48'E, with a land mass of about 45,567 square kilometres. Kaduna State has a population of 6,066,562 inhabitants (NPC, 2006), which is estimated at 8,106,284 for the year 2016 at an annual growth rate of 2.67%. It occupies a major position in the agricultural economy of Northern Nigeria (Ado *et al.*, 1999).

The annual rainfall in the area varies generally between 942 mm and 1000 mm and last for about six (6) months (May to October) of the year (National Agricultural Extension and Research Liaison Services [NAERLS], 2002). The area has a suitable climate and environmental conditions favourable for livestock production. The mean annual rainfall shows a marked decrease from South to North (1,524 mm to 635) which is favourable to crop and livestock production (Kaduna State government, 2012). Small, medium and large scale livestock production and marketing are practiced across the State (Saddiq *et al.*, 2016).

### **Sampling Procedure and Sample Size**

The sampling procedure comprised the purposive selection of single or small cluster suya agribusiness enterprises in Samaru, Bomo, Zango, Palladan and PZ areas of Sabon-Gari Local Government Area (LGA); followed by an accidental selection of respondents from each joint. Accidental sampling is a type of non-probability sampling which does not include random selection of participants. It involves selecting participants who are easy to reach. It is one of the few methods that can be used in situations where a sampling frame is not available for the population (Ehrenberg and Bound, 1993). A total of 50 suya agribusiness were selected for the study as presented in Table 1.

### **Method of Data Collection**

Primary data was collected from each of the 50 sampled respondents using the semi-structured questionnaires specifically designed for the study.



**Table 1:** Sampling Frame and Size Selection Plan of the Study

Name of Suya Cluster	Sample Size
<b>Samaru</b>	<b>16</b>
<b>Bomo</b>	<b>7</b>
<b>Zango</b>	<b>13</b>
<b>Palladan</b>	<b>6</b>
<b>PZ</b>	<b>8</b>
Total	50

### Analytical Techniques

Descriptive statistics was used to achieve objectives i, ii and v. Partial budgeting tool, (net return) was used to achieve objective iii of the study as specified as:

$$NR = TR - TC \quad \dots(1)$$

where;

NR = Net-Return (₦)

TR = Total Revenue (₦)

TC = Total Costs (₦)

The marketing efficiency ratio was used to achieve objective iv of the study and is specified as:

$$AME = \frac{\text{Value Added by Agribusiness (₦)}}{\text{Total Cost of Agribusiness (₦)}} \quad \dots(2)$$

The methods and formulae used for partial budgeting are commonly discussed in almost all published agricultural marketing and farm management textbooks, e.g., Boelje and Eidman, 1984; and Olukosi and Erhabor, 1987). Their applications in marketing related studies in Nigeria are also documented (Olukosi *et al.*, 2007; Ekunwe *et al.*, 2008; Erhabor *et al.*, 2008 and Musa *et al.*, 2011).

## RESULTS AND DISCUSSIONS

### Socio-economic Characteristics of Suya Agribusiness Entrepreneurs

Table 2 shows that all of the respondents were males, which means that females are not directly involved in Suya agribusiness. This is because culturally women in the study area are not directly involved in the business of suya. This finding agrees with Iliyasu *et al.* (2008) and Ahmadu and Aduwa (2015). The survey revealed that 36% of the suya agribusiness entrepreneurs had primary level education; 50% had secondary education. About 86% had at least primary level education. Seven (7) of the respondents in the study area (14%) had no formal education. Several studies reported a significant and positive relationship between education and adoption of new technologies among agricultural entrepreneurs (Ajala 1992; and Madukwe, 1995). Ani (1998) noted that education enhances agricultural entrepreneurs' capacity towards deriving, decoding and evaluating useful information for better productivity. The results show that all the respondents had access to a form of informal credit. None of the respondents reported accessing credit from a formal source. Most (42%) source credit from family and friends; and 40% savings and thrifts societies like *esusu* and *adashi*. A positive relationship is reported between access to credit and the level of adoption of improved



technologies capable of leading to improved productivity (Ammani *et al.*, 2012). All the respondents were of the opinion that suya agribusiness was profitable in the study area.

The results of Table 2 also indicate that 52% of the respondents were members of relevant business associations. As noted by Ammani *et al.* (2015), benefits expected from membership of associations include increased market power, economies of scale and possible representation of members at governmental levels. Figure 1 depicts distribution of respondents according to whether or not their agribusiness enterprises were limited to suya production and marketing. Ninety-two (92%) of the respondents were involved in other enterprises part from suya roasted chicken, *balangu* (another member of the suya family), bread bugger and *masa* were other important products of the suya agribusiness enterprises in the study area.

**Table 2:** Socio-economic Characteristics of Suya Agribusiness Entrepreneurs

<b>Variable</b>	<b>Items</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Sex:</b>	Male	50	100.0
<b>Age:</b>	<20	5	10.0
	21-30	17	34.0
	31-40	14	28.0
	41-50	13	26.0
	>50	1	2.0
	Average age	<b>34.25</b>	
<b>Marital status:</b>	Married	36	72.0
	Non-married	14	28.0
<b>Level of education</b>	Primary	18	36.0
	Secondary	25	50.0
	No formal	7	14.0
<b>Profitability of suya Agribusiness:</b>	Profitable	21	42.0
	Very profitable	29	58.0
	Total	50	100.0
<b>Membership of association:</b>	Yes	26	52.0
	No	24	48.0
<b>Sources of credit:</b>	Savings and thrifts society	20	40.0
	Personal savings	9	18.0
	Family and friends	21	42.0

Source: Field survey, 2019

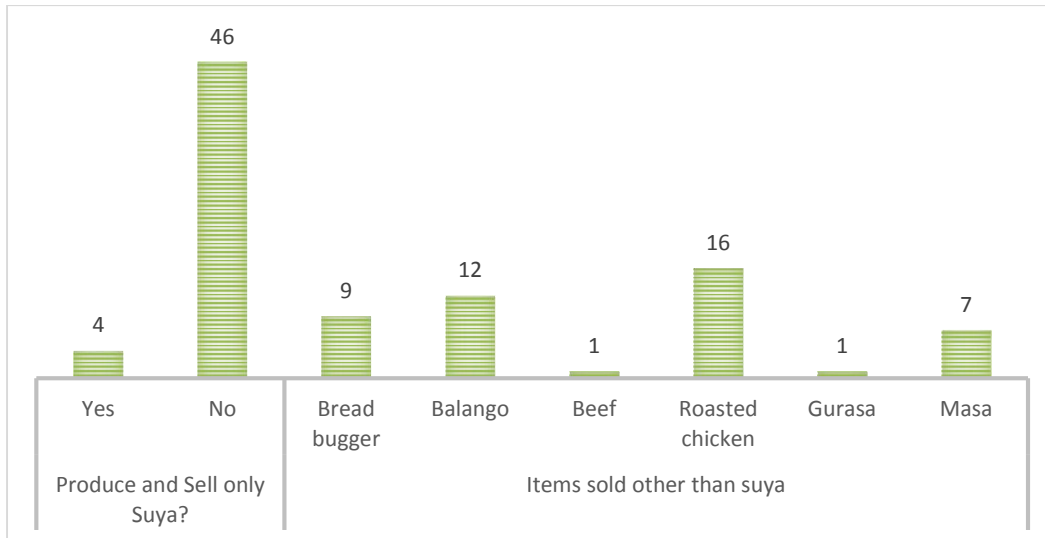


Figure 1: *Produced and sell only suya?; and items sold other than suya*

### Daily Suya Agribusiness Costs Components in the Study Area

The average daily agribusiness cost for suya in the study area is ₦27,685.06 per average size suya agribusiness enterprises. Figure 2 shows the average distribution of daily agribusiness costs elements recorded for entrepreneurs in this study. Meat (beef), the major input, is the leading element of cost estimated at 89% of total cost; other elements of costs were ingredients (6.36%), labour (3.97%), followed by transportation and Rent with 0.71% and 0.29%, respectively. The sum of average annual rent for shop premises, and the average annual depreciation for the few fixed and variable assets used in producing and selling suya (table, knives, plates, and packaging) was estimated at ₦28,822.58. This amount was divided by 365 to give a daily average of ₦78.97 used in the study.

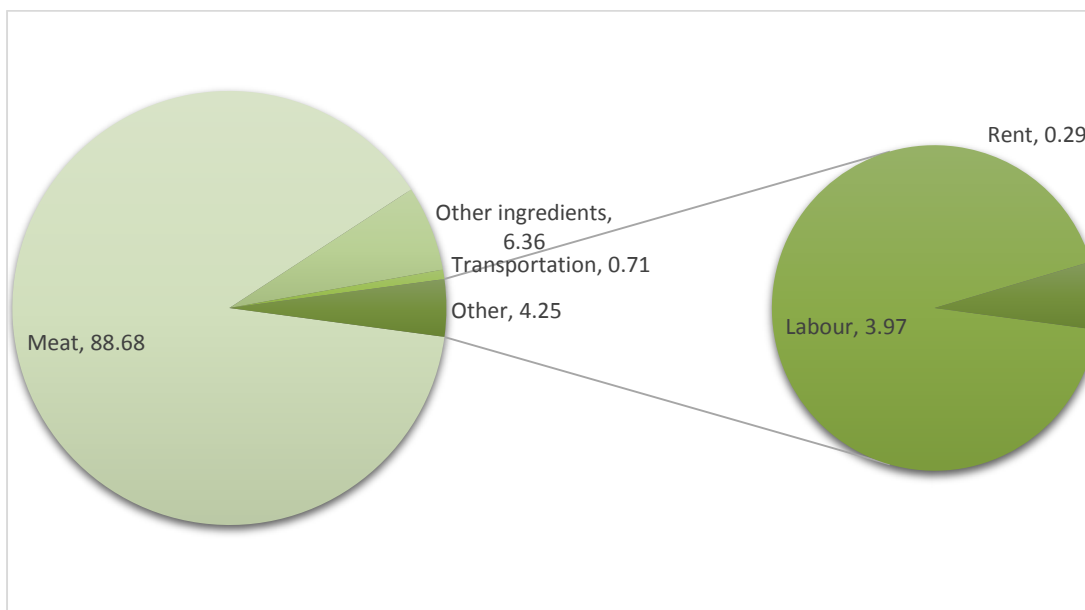


Figure 2: *Average daily costs of suya agribusiness in percentages*



**Profitability Analysis of Suya Agribusiness in the Study Area**

Table 3 shows the estimated average total revenue, total costs and profit for Suya agribusiness enterprises in the study area. An average profit of ₦10,115.94 was estimated in the study area suggesting that suya agribusiness is profitable in the study area. This finding agrees with those of Iliyasu *et al.* (2008) and Ahmadu and Aduwa (2015) who reported profit in suya agribusiness in Maiduguri and Benin-City, respectively.

**Table 3:** Costs and Returns of Suya Agribusiness (₦)

Parameter	Quantity	Unit of measurement	Unit Price	Amount
<b>Variable costs:</b>				
Meat	22.32	Kg	1,100.00	24,552.00
Other ingredients	1.00	Lumpsum	1,760.00	1,760.00
Transportation	1.00	Lumpsum	196.20	196.20
Labour	2.58	Manday	425.54	1,097.89
Rent	1.00	Lumpsum	78.97	78.97
<b>Revenue:</b>				
Big sticks	143.27	Number	200.00	28,654.00
Small sticks	91.47	Number	100.00	9,147.00
<b>Total Costs</b>				27,685.06
<b>Total Revenue</b>				37,801.00
<b>Gross Profit</b>				10,115.94

Source: Field survey, 2019

**Efficiency of Suya Agribusiness Enterprises in the Study Area**

A marketing efficiency ratio of 3.23 was calculated for suya agribusiness enterprises in the study area (Table 4). The ratio indicates that the total value added by agribusiness exceeds the total agribusiness costs implying that suya agribusiness is profitable. Total costs for suya agribusiness have to rise by 223% before the agribusiness efficiency ratio would be down to 1, which is the break-even point. These findings agree with that of the earlier mentioned studies (Iliyasu *et al.*, 2008; and Ahmadu and Aduwa 2015) that suya agribusiness is profitable.

**Table 4:** Calculated Values of Marketing Efficiency Ratios

Total Revenue (₦)	Total Costs (₦)	Value Added by Agribusiness (₦)	Costs of Agribusiness Services (₦)	Efficiency Ratio
37,801.00	27,685.06	10,115.94	3,133.06	3.23

Source: Field survey, 2019

**Constraints of Suya Agribusiness Enterprises**

Figure 3 depicted the constraints encountered by suya agribusiness enterprises in the study area. The most prominent constraint was insufficient capital (95%) which prevents the respondents from upgrading and expanding their business. Poor storage facilities for raw meat (26%) and rising and fluctuation in meat costs (16%) were other constraints reported by the respondents. The constraints identified in this study agreed with that reported by Ahmadu and

Aduwa (2015) that high cost of input (91%), lack of credit facility (82%), inadequate capital (70%) and frequent rainfall (61%) were the constraints to meat suya agribusiness enterprise.



Figure 3: Constraints of suya agribusiness (%)

## CONCLUSION AND RECOMMENDATIONS

The study disclosed an average profit of ₦10, 115.94; an efficiency ratio of 3.23 and the major constraints militating against suya agribusiness to include insufficient capital, poor beef storage facilities and rising and fluctuation in meat cost. The study therefore, concluded that suya agribusiness in the study area is profitable. Based on the findings, the following recommendations were advanced:

1. Suya agribusiness entrepreneurs should be organized and strengthened to work in groups, associations and cooperatives to enable suya agribusiness entrepreneurs obtain formal credit at competitive interest rates. This would enable their access to formal agricultural credit which would improve their economy of scale and accelerate the adoption of improved practices and technologies capable of leading to higher efficiency and profitability.
2. Extension publications such as bulletins, guides and leaflets on suya agribusiness practices should be developed for the use of literate entrepreneurs. This would expose suya agribusiness entrepreneurs to improved practices capable of leading to higher efficiency and profitability. With the increasing usage of mobile telephony observed in the study area, e-extension which utilizes the fruits of information and communication technologies (ICTs) in agricultural extension could be deployed to enhance literate entrepreneurs' access to the aforementioned extension publications via the internet.
3. Since suya agribusiness is found to be profitable in the study area, youths, especially young graduates should be encouraged through awareness creation, capacity building and economic empowerment to venture into the business. This would go a long way in minimizing the menace of unemployment among youths.

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