PROFITABILITY ANALYSIS OF SOYA BEANS PRODUCTION IN ARDO-KOLA LOCAL GOVERNMENT AREA OF TARABA STATE, NIGERIA.

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Introduction

Agriculture is of strategic important in the fight against poverty and famine and ensuring food self-sufficiency. Nigeria had set a goal of self-sufficiency in basic food production by the year 2000 (Shalma, 2014). However chronic nutrition is still widespread and the problem of food security, especially among rural households is prevalent in many areas across the country, as the gap between food demand and supply is still eminent (FAO, 2006; Babatunde et al, 2007). While populations have witnessed phenomenal increase food production is lagging behind. Thus, it is becoming difficult to feed the increasing

Abstract

The study analyzed the profitability of Soya beans production in Ardo-Kola Local Government Area of Taraba State. It specifically described the socio-economic characteristics of Soyabeans farmers, estimated the costs and return of soyabeans production and identified the constraints to soysbeans production in the study area. Data were collected from 120 soyabeans farmers using purposive and random sampling techniques. The data were analyzed using descriptive statistics. The cost result revealed that most of the soyabeans farmers in the study area were young, married and formally educated. The farmers were mainly small holders without access to credit facilities. The results of the Gross Margin analysis showed a cross

*i*ncome of N122,500, Gross margin of N53,900 and Net farm income of N45,250 with a return on Naira invested of N0.67K, which implied, it is a profitable venture. Constraints to syabeans production were identified as; inadequate funds high cost was recommended that soyabeans farmers should farm or join Cooperative Society in order to access finance from Government as well as other financial institutions. And also, Government as well as should subsidize the price of farm inputs to make them affordable and accessible to farmers.

number of people in the country. Soyabean is one of the major crops in achieving the food security quest in Nigeria.

Soyabean cultivation in Nigeria has expanded as a result of its nutritive, economic and diverse domestic usage. The crop can be grown successfully in many states of Nigeria including Taraba State using low agricultural inputs. In the traditional growing areas, it is most commonly intercropped with cereal crops live maize, sorghum, and Millet (Adeniyan and Ayoola, 2006).

Soyabeans is consume as food (milk), used for edible, oil, animal feeds, edible protein and for industrial purposes (Abdullahi, 2004). It is a versatile crop from which product live soyabean oil, soyabean milk, soysbean fufu, soyabean dodawai, livestock feed, soyasauce and baby foods such as golden morn, nutrient and celelac are derived.

Although protein in human deist is derived from both plant and animal sources, the deching consumption of animals protein due to its high price required alternative sources. Soyabean provide a cheaper and high protein rich alternative substitute to animals protein. Soyabean is also medical and extremely useful for treatment of mal-nutrition particularly among children and in the tight against diseases such as heart disease, cancer, diabetes, high blood pressure, stroke, ulcer as well as the loss of body mass among people living with HIV/AIDs (Fabiyi; 2006; Obatolu, 2006).

Investment in soyabean production has great potential in contributing to food, and nutritional security, income generation, poverty alleviation.

Therefore this study becomes imperative to examine the profitability analysis of soyabeans production in Ardo-Kola Local Government area of Taraba State,

Nigeria. It specifically aimed at describing the socio economic characteristics of the respondent, estimate cost and returns of soyabeans production and identify constants to soyabeans production in the study area.

METHODOLOGY
The study was conducted in Ardo-Kola Local Government Area of Taraba State, Nigeria.

Method Of Data Collection
The data were collected through the primary source using structured questionnaire.

Sampling Technique
Purposive and random sampling Techniques were used in the selection of the respondents. Five out of the Ten wards were purposively selected due to their prominence in soyabean production, then two villages each were chosen from the wards that predominantly soyabeans farmers. Then a total of 120 soyabeans farmers were randomly selected in proportion to their population in the villages and used for the study.

Method of Data Analysis
The data for this study were analyzed using descriptive statistics such as frequency
and percentages. Gross margin analysis was used to estimate costs and returns associated with soyabeans production in the study area. The cross margin model is expressed below:

GM = GFI – TVC - - (i)

Where: GM = Gross Margin (N/ha)

GFT = Gross – Margin

TVC = Total variable cost (N/ha)

The profit level A measured by Alabi and Adebayo (2008), is specified as:

NFI = GM – TFC - - (i)

Where: NFI = Net Farm Income (N/ha)

GM = Gross Margin (N/ha)

TFC = Total Fixed Cost (N/ha)

International Journal of Management Science & Entrepreneurship

Results and Discussion

Socio-Economic Characteristics Of Soya Beans Farmers (n = 120)

The result in table I revealed that majority (66.67) of the respondents were below the age of 36, while 33.33% of the respondents were 36 years and above. This implied that Soyabeans farmers were young and in their productive years capable of sustaining the production of soyabeans in the study area.

Also, 58.33% of the respondents were male, while female constituted 41.67% of the respondents. By implication, male predominated in soyabeans production. The result in table I further showed that 54.17% of the respondents were married that, the singles were 45.33%. This implied that, the farmers might take farming seriously to meet their family obligations.

Moreover, 17.50% the respondents have one to four persons per house hold, while majority (82.50%) of the respondents have more than five persons per house hold. This implied that Soyabeans have large household size which might serve as a cheap source of family labour to help in soyabeans production in terms of educational level, 22.50% of the majority (77.50%) of the respondents have acquired formal education ranging from primary to tertiary level. Education is very essential in the adoption of modern farming in the study area. About 20.00% of the respondent have farming experience of one to five years while majority (80.00%) of the respondents have farming experience of more than six years enhance soyabeans capability of managing the crop efficiently it will also enhance their risk management capacity. The result in table I also showed that majority (75%) of the respondents have between less than one to four hectares of farm land for soyabean production, while 25.00% of the respondents have five hectares and above as farm size. By implication, majority of the soyabean farmers were small holder farmers. Also, 87.50% of the respondents have no access to credit facilities, while only 12.50% affect their expansion of farms. In the same vein, 73.33% of the respondents have no access to extension agents, only 26.67% of the respondents have access to extension services. Extension agents are very important for the training and leading of farmers in the adoption of the best farming practices that will boost soyabean production in the study area.

Table I Socio-Economic Characteristic of Soyabeans Farmers (N = 120)

Variable	Frequency	Percentage
Age		
18 – 25	16	13.33
26 – 30	30	25.00
31 – 35	34	28.33
36 & above	40	33.33
Sex		
Male	70	85.33
Female	50	41.67
Marital Status		
Married	65	54.17
Single	55	45.33
Household Size		
1 – 4	21	17.50
5 – 10	49	40.83
11& above		
Educational Level		
Non- Formal Education	27	22.50
Primary Education	33	27.50
Secondary Education	40	33.33
Tertiary Education	20	16.67
Farming Experience		
1 – 5	24	20.00
6 – 10	42	35.00
11 & above	54	45.00
Farm Size		
1 – 2	46	38.33
3 – 4	44	36.67
5 & above	30	25.00
Access to Credit		
Yes	15	12.50
No	88	73.33

Average Costs and Returns/Ha of Soyabeans Production

The result in table 2 revealed that soyabeans farmers in the study area incurred a total cost of production of N67,250/ha. While the variable costs was N58,600/ha. The result further showed that, the Gross income, Gross margin and Net farm income per hectare of N112,500, N53,900 and N45,250/ha respectively. The return on Naira invested was N0.67k. this result indicated that soyabeans production is highly profitable in the study area.

Table 2 average costs and returning ha of production costs/returns

Variable costs	Values (N)
Seeds	5,500
Fertilizer	9,500
Herbicides	3,900
Labour	32,500
Transportation	2,200
Other Expenses	5,000
Total variable costs	**58,600**
Fixed cost	
Lent on Land	5,000
Depreciation of Fixed Assets	3,650
Total Fixed Cost	**8,650**
Returns	
Gross Income	112,500
Gross Margin	53,900
Net Farm Income	45,250
Return on Naira Invested	N0.67

Source: Field Survey,2020.

Constraints To Soyabeans Production

The result in table 3 showed that 95.83% of the respondents were confronted with the problem of inadequate funds in the production of soyabeans. This might be due to their inability to access credit facilities from the bank due to the stringent loan conditions. Also, 91.67% of the respondents complained of high costs of farm inputs, such as: fertilizer, herbicides. Similarly, 87% of the

respondents have problems of lack of adequate storage faced with the problem of the respondents were which is mainly done manually. The state of insecurity constituted 79.17% of the problem affecting soyabeans farmers, this makes many farmers to fled the area for the safety of their lives and properties. In the same vein, 85.00% of the respondents have no access to improved seeds. This makes farmers resort to the use of local plant seeds which is less productive, thereby resulting to low yields.

Table 3 constraints to soyabean production (n = 120)

Constraints	Frequency	Percentage
Inadequate Funds	115	95.83
High Cost of Farm Inputs	110	91.67
Lack of Storage Facilities	105	87.50
High Cost Lobour	100	83.33
Insecurity	95	79.17
Lack of Access to Improve Seeds	102	85.00
Multiple responses		

Source; *Field Survey, 2020*

Conclusion

Based on the major findings of this study it is concluded that, soyabeans production is highly profitable in the study area. It is also discovered that, most of the soyabeans farmers in the study area are small holder farmers who lacked access to credit facilities and extension services. The soyabeans farmers are bedeviled with the problem of inadequate funds, high cost of farm inputs, as well as insecurity.

Recommendations

Based on the major findings of this study, the following recommendations are made:

1. Soyabeans are encouraged to form or join Cooperative Society in order to access credit, facilities from Government and financial institutions.
2. Government should subsidize farm inputs such as: improved soyabeans, seeds, fertilizer and herbicides in order to make them

affordable and accessible to farmers to boost soyabeans production in the study area.

3. Adequate security measures should be taken by Government security agencies in order to safe guard the lives of farmers and their farmers. This will also helps to prevent the attack of farmers by herdsmen who invades farms causing destruction of crops by their livestock.

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