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PREPARATION OF A BUSINESS PLAN FOR AN AGRICULTURAL ENTERPRISE

MAIZE PRODUCTION BUSINESS PLAN

INTRODUCTION

Description

In Nigeria today, the dry season is a threat to many farmers, however the idea of maize production is an opportunity to make substantial profit. The main objective of this business is to take advantage of the dry season situation and satisfy the needs of salivating consumers and still be able to make great profit.

Water should be pumped on a daily basis to a reservoir as it is the bedrock for everything. The land which would be used may have been abandoned for years or months, hence it needs to be cleared and ridged in preparation for planting. Drought intolerant maize variety seeds can be gotten from an Institute of Agriculture e.g International Institute of Tropical Agriculture Ibadan, this is to enhance optimum performance and high yield. Two weeks after germination, insecticide should be duly applied on the sprouting seedlings for maximum protection against insect pests. Six weeks after planting, weeding of the whole maize plot should be carried out to prevent competition with the maize stands, and by 10 weeks after planting harvesting should be gradually initiated up till the harvesting of the last maize cob on the plot, and this should be done within a period of 2-3 weeks to prevent quality loss.

Objective

The main aim is to make a lot of profit by taking advantages of the fact that it is hard to go into farming nationwide during dry season and meet the needs of the public by providing a vast number of maize product that would still have the same quality as though it was planted during the raining season.

Management Structure

To begin with, a competent farm manager should aim at the achievement of the business targets and objectives. The owner(in a case whereby he/she is not the manager) should be frequently contacted and updated on any development that might come up during the production or marketing phase. All records(financial)should be properly kept for future references.

Marketing Strategy

Marketing is essential in production, an effective production can be inefficient when there is a lax in marketing. Even though there is a ready-made demand for fresh maize in the market, more still needs to be done to ensure rapid distribution and profitable sale of the maize. It has been postulated by experts that with increasing Nigerian population, the demand of maize as food will increase.

It is imperative that before setting up a maize farm, the following has to be determined:

Whether middlemen or retailers would be used

Whether the products would be sold in bloc(of items) or in unit packs

Whether it is going to be given a befitting package or not

Whether it would be sold at prevailing market price or farm gate price

Whether to sell the processed maize or raw maize.

The most important thing is to make choice of decisions that would give optimal results given the resources available.

However, high market demand for this common(but scarce during dry season) staple foods create a way for deep penetration into the market. With a well followed and calculated approach, the product would be sought for during glut(this usually occurs during raining season) because the farmer has been there for them during the dry season.

FINANCIAL ANALYSIS

Cost>Returns Analysis

The following table gives a summary of all the cost that would be involved in carrying out this plan.

Table 1: Fixed and Variable Cost

FIXED COST	N	N
Drip irrigation system	800,000	
Borehole	500,000	
Total Fixed Cost	1,300,000	
		1,300,000
VARIABLE COSTS		
INPUTS		
6 bags of fertilizer	33,000	
5l super gro	5,000	
3l of insecticides	4,500	
3 bags of drought tolerant maize seeds	30,000	
Fuel(3l/day for 75 days)	32,625	
LABOUR		
Land clearing	80,000	
Ridge making	100,000	
Weeding	30,000	
1 Farm manager(3months)	60,000	
1 Farm assistant(3 months)	30,000	

Miscellaneous	10,000	
Total Variable Cost	415,125	
		415,125
TOTAL COSTS		1,715,125

This table was made based on the assumption that investor has a 2.5acres of land i.e 1ha; and he has a generator that can power a 1hp submersible pumping machine.

RETURNS

A standard and recommended spacing for sole maize cultivation is 7.5cm x 2.5cm = 0.75cm x 0.25m. Also 2.5ac = 1ha = 10,000m²

No of stands/ha= $10,000\text{m}^2 / (0.75 \times 0.25)\text{m}^2 = 10,000\text{m}^2 / (0.1875)\text{m}^2 = 53,333\text{stands/ha}$

Hence, 53,333 stands of maize are expected on 2.5ac land.

Meanwhile during the dry season, maize cobs will be sold per unit of 3 i.e making a total of $53,333/3 = 17,777\text{units}$ and each would be sold at 100. The total revenue expected from 1ha sole maize plantation in dry season is minimum of $(17,777 \times 100) = \text{N}1,777,700$.

Meanwhile during the rain season, maize cobs will be sold per unit of 5 i.e making a total of $53,333/5 = 10,666\text{units}$. The total revenue expected from 1ha sole maize plantation in rainy season is: $53,333/5 = 10,666 \times \text{N}100 = \text{N}1,066,000$ hence, in a planting year, the total $(17,777 + 10,666 = 28,443)$ units would be sold.

FEASIBILITY AND VIABILITY ANALYSIS

The financial viability was carried out using the Net Present Value(NPV), Internal Rate of Return(IRR), Return per Capital Invested and Benefit-Cost ratio. The table below shows the NPV and IRR. Given the positive NPV, the project can be accepted as viable. The all year round maize project feasibility and sustainability can also be accepted given the fact that the IRR is greater than the assumed market interest rate(i.e 115% > 25%). It therefore shows that if the maize project is carried out with an initial outlay of N1,715,125 on a loan of the said amount, entrepreneur should be expecting N2,844,300 in twelve months

because the rate of return carried out on the investment(which is 115%) is greater than the assumed interest rate on loan(which is 25%).

Given the status of labour and other input materials remains in the next 5 years, the NPV and IRR are analyzed as follows:

ESTIMATED NPV AND IRR OF THE ALL YEAR ROUND MAIZE PRODUCTION PROJECT				
YEARS	ANNUAL CASH FLOWS	YEARS	ANNUAL CASH FLOWS	
Year 1	2014050		Initial Outlay	-1715125
Year 2	2014050	Year 1		2014050
Year 3	2014050	Year 2		2014050
Year 4	2014050	Year 3		2014050
Year 5	2014050	Year 4		2014050
Total Present Value	NGN 5,416,344.38	Year 5		2014050
Initial Outlay	-1715125		IRR	115%
NPV	NGN 3,701,219.38			

Return per capital invested= Net income/ Gross return = $(2,014,050 - 1,715,125) / 2,014,050$
 $= 298,925 / 2,014,050 = 0.148 = 0.15$

The return per capital invested is found to be 0.15 which means that for every naira invested in the maize project, a N15,000 gain would be realized. The Benefit Cost Ratio was also estimated and found to be :

Benefit Cost Ratio(BCR)= Benefit / Cost

= N 2,014,050 / N 1,715,125

=1.17

The maize production project can be for sure adjusted to be a viable venture since the BCR is greater than 1.

SWOT ANALYSIS

It is not satisfactory to emphatically judge a business to be profitable and viable without a proper analysis of its: Strengths, Weaknesses, Opportunities and Threats at one's disposal. A good detailed and convincing SWOT analysis is the mainframe of any successful business. Therefore, the SWOT analysis of this proposed maize projects is important to its success. The strengths, weaknesses, opportunities and threats of this maize project are as follows:

1.Strengths: One of the factors critical to a successful outcome of any investment at all, is the availability of time to personally concentrate on the management, it is one of the greatest strengths of the project. In a situation whereby there is hardly time to manage this business plan, a farm manager should be employed(someone who can effectively and efficiently manage the project given the volume of his experience in project managements especially with regards to farming). Lessons from past business management experience of the investor must have been learned and should be re-invigorated while executing future plans to extract the best from his courage, devotion and wholesome commitment.

2.Weaknesses: Without means of finance, even the best of ideas may not come to fruition or reality. Paucity of funds is usually a greater constraint in most cases. However a financial support/backbone should be from a reliable source.

3.Opportunities: The high demand for maize during the dry season, coupled with the inactivity of competitors(farmers) or farmer's apathy during this season, leaves a loop hole to exploit and a goldmine to diligently explore.

4.Threats: During the dry season, most of "buffer crops/weeds" are generally absent or limited, hence exposing a planted sole crop to insect pest infestation. To curtail this however, effective organophosphate insecticide should be applied on the emerging maize seedlings as at when due. However theft or threat is likely to disturb the farm depending on the farm's location and there is no threat from climate change that can be imagined because there won't be dependence on rain.

CONCLUSION

The proposed maize production plan above has a reasonable chance of success at the start and it is sustainable, it has the propensity to be produced efficiently and can be marketed effectively.