

OBI-OBUIHA ABIAMAMELA

18/ENG05/040

MECHATRONICS ENGINEERING

FOOD PRODUCTION AND HEALTH AWARENESS.

POULTRY ENTERPRISE.



NAME OF BUSINESS: OBI POULTRY FARM.

ADDRESS: NO 1 LIMPOPO, MAITAMA, ABUJA, NIGERIA.

PRINCIPAL OF THE BUSINESS: TO PROVIDE GOOD AND EFFICIENT SERVICES FOR THE BENEFIT OF CUSTOMERS.

NATURE OF BUSINESS: SOLE PROPRIETORSHIP INTENSIVE POULTRY FARM.

An agricultural enterprise (Poultry) has been chosen to be embarked upon in order to produce profit. This would be talked about according to the guidelines of project preparation.

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- Identification/Selection
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Identification/ selection.

Raising poultry birds involves the production of broiler meat and chicken eggs. The types of birds being reared are Domestic fowl or Chicken (*Broilers and layers*).

It's one lucrative and wide industry that has attracted millions of investors over the years. This poultry project is an offshoot of an existing little poultry that has majorly been about sustenance of a single family up until this point. In order to widen the scope of income and enable economic diversity, this enterprise would be embarked upon. The business would be centered on layers, which deals with the production of eggs to sell.

The statement of the agricultural policy on the matter is “The general policy objectives of the livestock subsector are to put all available livestock resource into best use. This will be achieved through increased production either by expanding the resources base by increasing the productivity of the existing resources through systematic improvement of the national production system or both”.

The expansion of the business is in accordance with the below stated. This project is suitable in Nigeria due to adequate climate and high demand during particular seasons. The nearness of market is also a great influence in the choosing of this enterprise.

Project Preparation and Analysis.

LAND/ WORKSPACE.

Currently, the land being used is two hectares (the assume land that has been used for sustenance. After the proper kick off of the business an extra land should be acquired therefore moving the working space from one hectare to two. This translates that a small scale business would be practiced.

Location.

As for the location, it would be near a good market, Farmers Market in Abuja. Therefore, it would be located at number 1 Limpopo. This location has large uninhabited yard of land with a serene environment. The area isn't located near any residential buildings to avoid discomfort. From that location, there is a straight road to the market. The price of the land would also be cheap due to the area.

HOUSING REQUIREMENT OF THE BIRD.

An intensive system would be practiced where the chickens would be placed in battery cages.

This would help to keep a close eye on the chickens and protect them from harsh condition in case that arises.

Intensive system involves i. Deep litter, ii. Wire and slated floor, iii. Straw yard, iv. Battery cage

Deep Litter System- This system involves spreading wood shavings or saw dust on a concrete ground with the chickens placed on the floor and the dust serving as a 'cushion' for them. The dust is changed regularly, either by removing and replacing or by layering.

Deep litter system is used by a lot of poultry farmers because it increases efficiency and makes it easier to manage large flocks of birds but it allows for a faster spread of diseases when there is an outbreak and also makes it difficult to fish out unproductive birds. This would be practiced for the broilers.

Battery Cage System:- As for the battery cage system, metal cages are constructed inside a building to house the birds. The cages are usually split into different compartments to house small groups of birds. The cages also contain feeding and water troughs as well as laying nests.

Bird droppings fall on the floor and are cleaned mechanically by a scraper. This method is considered to be the most effective for egg production but the major downside of this method is that it is more expensive to construct and maintain compared to other forms of poultry housing systems.

If you are running a poultry farm for commercial purposes and you intend getting the best out of the business; with respect to high birds' productivity and efficiency. Then you should consider housing your birds using the intensive system. Note that each of the three housing system has its own advantages and disadvantages. Lastly, your poultry housing structure should be built at a particular angle; taking sunlight and wind into consideration. This is what would be practiced for the layers.

MARKETING STRATEGY

Obi Poultry farm will as a marketing strategy employs a marketer at full capacity; the marketer will be employed to sell the eggs produced in the farm from one egg depot to another. Through this marketing activity, many clientele bases will be created.

To make the marketing easier and more efficient, we will allocate a date for all our customers so each customer will have a day when they will be supplied eggs either by picking up the eggs or have it delivered to them at a price.

Asides from the layering aspect, broilers would also be sold. These are live chickens that have reached full market size. The produce would be available only for pickup not like delivery to reduce the risk taken in transporting whole chickens as well as lower the cost of transportation.

Gradually, a client base for this branch would also be setup.

Also, adverts will be placed on several online media which will also serve as a form of marketing.

Supply is normally in high demand during the Easter and Christmas periods; therefore market base would be easily established then.

BUSINESS REQUIREMENTS

The poultry business will need several equipment and tools for the smooth management of the business and they include:

- A shop in town will be needed to serve as the warehouse and egg depot, this helps in reducing the number of people who go to the farm which in turn reduces the risk of a break of security and bio-security.
- Semi-automatic battery cages of good quality will be purchased and installed for the birds.
- Other equipments needed for the business are feed (grower mash and layer mash), point of lay, different medications and vaccinations.

- The specialists in an agric project preparation team include, agricultural economist, animal scientist, agricultural extension specialist, engineers, financial analyst and nutritionist.

PRODUCTION.

Because of the use of an intensive system, the layers would be required to stay in their battery cages at all times and fed with layers mash. The eggs laid would be carefully collected from time to time by the laborers. These would be sent to the warehouse immediately before taken to the market.

For the broilers, they would be placed in the deep litter and fed with broiler mash until they reach marketable size. They would then be taken to the market directly for sale.

POULTRY FARM STAFFING AND MANPOWER

A certain number of staff would be employed for the menial work. An accountant as well as a site manager would also be given jobs. They would be aided with other mechanical equipment on site. Security men would also be employed to monitor the movement of equipment as well as personnel into and out of the site. There would also be a transport staff for the movement of the produce to the ware house or directly to the market.

Other staff includes the agricultural economist, animal scientist, agricultural extension specialist, engineers, financial analyst and nutritionist. The nutritionist would be a permanent staff in order to constantly watch over the welfare of the animals. A veterinary doctor would also be employed.

PROJECTED RETURN ON INVESTMENT.

The incubation period of the domestic fowl is 21 days. Birds would start being sold as early as 8 – 12 weeks but full maturity is reached between 20 – 24 weeks. The payback period of the poultry farming business is between 3 – 5 years.

CAPITAL INVESTMENT.

The capital would be provided by the entrepreneur. Capital from investors may also be accepted. Initial capital to be raised would be no more than 3 million naira because it is a small scale business.

POSSIBLE CHALLENGES OF STARTING A POULTRY FARMING BUSINESS.

- **Lack of support from the government**
- **High start-up capital**
- **Outbreak of diseases**

When the environment is dirty, disease and infection is inevitable. Birds like chicken are very sensitive to environmental changes. If the poultry environment is not properly taken care of, the chickens will be exposed to diseases like bacterial infection. So it would be ensured that the poultry environment is kept clean and disinfected.

Bringing in contaminated equipment would be avoided, vehicle and foot wears. Birds would be regularly de-wormed and constantly checked for ectoparasites such as mites. Also, visitors would not be allowed into the poultry environment and it would be ensured that hands are properly sanitized before touching birds

- **Non availability and affordability of vaccines**

In the agro-allied industry, especially poultry farming; this particular challenge affects the small scale poultry farmers more because; unlike the industrial or commercial poultry farmers who can afford the vaccines, the small scale poultry farmers can't afford the vaccines.

- **Adulteration and high cost of poultry food**

The price of poultry food is quite costly and birds consume a lot. So most poultry farmers economize or ration the food given to the birds and this affects the output. Also, adulterated poultry food flooding the market is another challenge for poultry entrepreneurs.

This is because the adulteration utters the necessary nutrients the birds need in order to grow well, thus making them unhealthy and reduces their immunity to diseases.

Appraisal.

First of all, a feasibility report is going to be prepared.

A FEASIBILITY REPORT OF THE AGRICULTURAL BUSINESS PLAN

A FEASIBILITY REPORT / BUSINESS PLAN FOR THE REARING OF A 2 PLOT OF DOMESTIC CHICKEN AND ESTABLISHMENT OF A BROILER AS WELL AS A LAYER MARKET AT OBI POULTRY FARM, NO 1 LIMPOPO, MAITAMA, ABUJA NEAR THE FARMERS MARKET.

The undersigned reader acknowledges that the information provided in this business plan is a confidential intellectual property; therefore the reader agrees not to disclose it to a third party without the express written permission of the promoters of the proposed business.

It is acknowledged by the reader that information furnished in this business plan is in all respect confidential in nature, other than information which is in the public domain through other means and that any disclosure or use of same by the reader, may cause serious harm or damage to the promoters of the proposed business.

Upon request, this document is to be immediately returned to the promoters of the proposed business

Signature:

Name:

Date:

CONTENTS OF THE FEASIBILITY REPORT

1. Executive Summary/ Brief Description of the Project
2. Sponsorship, Management and Technical Assistance
3. Market and Sales
4. Technical Feasibility, Resources and Environment
5. Government Support and Regulation
6. Timelines of Projects
7. Estimated Project Cost and Revenue
8. Funding Mechanism
9. Conclusion

Executive Summary/ Project Description.

Raising poultry birds involves the production of broiler meat and chicken eggs. The types of birds being reared are Domestic fowl or Chicken (*Broilers and layers*).

It's one lucrative and wide industry that has attracted millions of investors over the years. This poultry project is an offshoot of an existing little poultry that has majorly been about sustenance of a single family up until this point. In order to widen the scope of income and enable economic diversity, this enterprise would be embarked upon. The business would be centered on layers, which deals with the production of eggs to sell.

This project is suitable in Nigeria due to adequate climate and high demand during particular seasons. The nearness of market is also a great influence in the choosing of this enterprise.

This business plan examines the feasibility of and indeed economic viability of the development of a two plot poultry farm. The farm will produce about 100 chickens with 1000 eggs a year. There is high domestic demand for these products because of our huge population and production constraints leading to shortage of the commodity.

The proposed project will create economic opportunities and impact positively on the people. The project will create market access, improve income of farmers and contribute significantly to food security. It will also generate satisfactory returns for sponsors and investors.

Sponsorship.

The project is sponsored by Obi-Obuoha Abiamamela. With possible contribution from investor companies such as daisy limited. Government loans and grants would also be accepted.

Management.

As the business is a small scale business, there would be the owner at the apex. The owner/entrepreneur would be in charge of everything with certain workers under him. The manager would be second in charge, overseeing everything going on in the site. There would also be an

accountant and a nutritionist that will be on the farm at all times. Security staff would also be present as well as other farm laborers.

Technical Assistance.

The business has established close ties with Lorenzos Transport Company which would provide assistance in the aspect of provision of cars and other vehicles for the transport of input materials such as feed and supplements into the farm and the movement of output such as eggs and full grown chickens out of the farm.

Kevin's Agricultural Products LTD has agreed to assist in the provision of feed, both layers mash and broilers mash. They would also be responsible for the supply of supplements as well as pest control chemicals. Animals that are also ill would get their medication supplied from here as well.

State Hospital of Jos has allowed a contract with their veterinary doctors in case of disease or poor development of livestock.

Afolabi and Boys Security Company has allowed us contact some workers on a monthly basis for the maintenance of security in the premises.

Son Heu Ming Enterprises in China has agreed to supply the cutting edge equipment required such as battery cages amongst others.

Market and Sales.

Market orientation: domestic; North Central, Nigeria

Market Share: 5% niche market in North Central Nigeria.

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Competition analysis.

High population growth and growing income lead to increasing demand for poultry products in Nigeria. The poultry industry has emerged as the most commercialized and fastest expanding segment in the animal husbandry subsector but still faces many problems. The poultry market is greater in southern and eastern states but shows a decline as one approach the northern states.

Therefore competition would be at 3 to 5% in this area. During periods like Easter and Christmas, demand would be high therefore reducing competition as they few other poultry farmers would still have available market.

Tariff and Import Restriction.

Since the business is a small one, import and export restrictions are not taken into consideration.

Market Potential.

There is strong demand for chicken and chicken derivatives in the Northern part of Nigeria. The state of infrastructure though not perfect still supports production and trade within Nigeria.

Several states require the development of poultries in those areas and this business aims at potentially expanding to meet the needs.

Profitability.

A lot of capital would be required to be put into this business but at the same time, due to high demand of chickens and their products, there would definitely be a profit return. Diseases, malnutrition, cost of infrastructure as well as general capital may be hindrances to the profit of the business. However, technical, scientific and financial based solutions will be employed to hedge against risks and safeguard profit. High demand in areas of concentration would ensure profit.

Technical Feasibility.

The project is workable as the battery cages would be installed by professionals as well as other systems and facilities to be used. Drugs and supplements are to be assisted by the professionals available on the site. The security details and instructions would be given by the security officer. Generally operation of the business technically looks feasible.

Government Support and Regulation.

The project so far would generate employment opportunities for individuals as well as give more revenue to the government. It doesn't violate any rule or regulation. The project conform with the economic diversification objective of the government. It creates economic opportunities, market access, improved income for farmers and support food security objective of government. The project will benefit from government intervention fund in the agriculture sector. The project will contribute significantly to employment, output increase, stable price and stable exchange rate.

Project Timeline.

The project will be completed within 1 year preferably between September, 2020 to September,2021 because land clearing is mostly done in the dry season and time would be required to set up housing and other facilities needed by the livestock.

Estimated Project Costs and Revenue

Fixed Cost

(A) Land Clearing and installation.

Activity	QTY	₦	K
Land Clearing	1Hectare	100,000	00
Battery Cage Installation.	1Hectare	40,000	00
Sub total	1Hectare	140,000	00
Total	2 Hectares	280,000	00

(B) Equipment

Name	QTY	₦	K
Feeding trough	100	80,000	00
Battery Cages	200	100,000	00
Wire Fence	1	10,000	00
incubator	3	110,000	00

Drinker	100	90,000	00
Hatcher	3	90,000	00
Sub total		390,000	00

(C) Vehicle

Type	Model	QTY	₱	K
Pick up Truck	HILUX	2	10,000,000	: 00

Operating Cost

Working Capital		
	₱	K
Security/Ha	15,000	00
Fumigation/Ha	15,000	00
Sub total	30,000	00
For 2 Ha	60,000	00
Mechanization and storage	60,000	00
For 2Ha	120,000	00
Input / Ha	60,000	00
For 2Ha	120,000	00

Area yield insurance	13,000	00
Produce aggregation	5,000	00
Geo Spatial Service	4,000	00
Sub total	22,000	00
For 2Ha	44,000	00
Interest per hectare	11,000	25
For 2Ha	42,000	00
Total cost per hectare	172,000	00
Total cost for 2Ha	344,000	00
Loan principal and interest (cost per Hectare)	183,000	25
Total for 2Ha	366,000	00

Amortization

N K

Land clearing amortization (per hectare)	30,000	: 00
Land clearing amortization (2hectare)	60,000	: 00

REVENUE

Yield per hectare 500 chickens@ ₦2000 per chicken	
	₦ K
Revenue per hectare	1,000,000 : 00
For 2hectare	2,000,000 : 00
Net revenue for 1Ha(without amortization)	1,817,000 : 00
Net revenue with amortization(400ha clearing)	1,757,000 : 00
2nd Production Cycle(Christmas sales)	
Net revenue	1,795,000 : 00
Net revenue with amortization(400ha land)	1,735,000 : 00
Annual Net Revenue (1st + 2nd Cycle)	3,492,000 : 00
Workers salaries, feed, chemicals and miscellaneous	2,000,000 : 00
Annual Net Income	1,492,000 : 00

Currency conversion rate: ₦360.00 to 1USD

Funding Mechanism.

Obi-Obuoha Abiamamela will provide 2Ha of cleared farmland around maitama and lease it to the business. Government would provide some form of subsidies for purchase of certain chemicals and feed. Equity investor to provide equity for equipment and vehicles purchase.

Where possible equity investor to provide equity for working capital or otherwise secure loan at the rate of 9% through government intervention window at the Bank of Agriculture, Bank of Industry and Commercial banks.

Conclusion.

High revenue is being produced therefore the project is technically feasible and commercially viable. It is therefore recommended for funding.

Implementation/ Monitoring.

The scarce resources would be put into actuation and the work would be checked/ monitored for progress. Budget is closely monitored for variability and deviation since price is a dynamic variable that is determined by prevailing market conditions. If project stops being viable, the whole business is to be liquidated and income be shared amongst investors according to contributions.

Evaluation.

At this stage, the actual achievement is evaluated to learn some lessons as regard the entire project cycle. From the feasibility report above, it can be predicted that good report would come about.

