UNIVERSITY OF NIGERIA, NSUKKA

FACULTY OF AGRICULTURE
DEPARTMENT OF HOME SCIENCE, NUTRITION & DIETETICS

TOPIC:

A BUSINESS PLAN FOR ESTABLISHMENT OF A FISH FARM AND OIL EXTRACTION AND FISH DISTRIBUTION

A BUSINESS PROPOSAL
PREPARED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE COURSE: (CEDR) 342
(BUSINESS DEVELOPMENT AND MANGEMENT)

BUSINESS NAME:

JUBILEE FISH FARM NIGERIA LIMITED

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CHAPTER ONE

1.0 Executive Summary

1.1 Catfish farming has proved to be very lucrative over time, hence the choice of the entrepreneurs to venture into the business.
1.2 The project would require a start-up capital of N8000000. This is made up of N600000 bank loan and N200000 equity.
1.3The vision of this venture is to provide nutritional and hygienic catfish for the consumption of residents of Anambra state and its environs
1.4 The choice of the location of Aqua catfish farm is Aguleri in Anambra state. The major factor that led to the choice of this location is the constant water supply from Omabala River.
1.5 There is a very large market in Onitsha that would serve as the base market of our products
1.6 The key success factor of the business is the constant demand for catfish in Anambra state and the environs
1.7 The sales figure of the business is as shown in the table below

	Sales from Fingerlings (N)	**Sales from Table Sized Fish (N)**	**Sales from Brood Stock (N)**	**Total Sales (N)**
Year 2012	600000	4200000	Nil	4800000
Year 2013	1200000	7140000	2736000	11076000
Year 2014	1560000	9280000	3556800	14396800

1.8 Below is a table that shows the net profit of the business after three years

Cash in;	**Year 0 (N)**	**Year 1(N)**	**Year 2 (N)**	**Year 3 (N)**
Equity	200000			
Bank loan	600000			
Net profit		3105450	8363965	11457540

We can therefore conclude that the business would become prosperous after three years.

CHAPTER TWO

2.0 Introduction

Our idea of embarking on a catfish farming project is as a result of its viability in Nigeria today. The aquaculture industry in Nigeria is growing at a very rapid pace. This is as a result of the increasing demand for fish and fish protein. Nigerians are large consumers of fish and it remains one of the main products consumed in terms of animal protein. According to statistics, only about 50% of the demand for fish is currently being met by local suppliers. Also, the fishery sector is estimated to contribute 3.5% of Nigeria's GDP and provides direct and indirect employment to six million people.

2.1 Vision

Our vision is to be one on the most important and highly recognized catfish farm in Anambra state and Nigeria as a whole, beating all our other competitors in the business

2.2 Mission

Our goal is to disseminate fish protein, and fish for consumption for the people of Anambra state and its environs.

2.3 Key Success Factor

We believe very much in the eventual success of this business, as certain factors are in place to see to that. Some of which include the following;

a. The government's interest in granting loans to graduates that embark on agricultural projects
b. The keen interest of Agulerians and neighboring towns in the consumption of fish, especially catfish, and the constant demand for catfish and the limited supply in Nigeria today
c. The conducive proposed environment for the fish farm
d. The employment of professional hands to help in the day-to day running of the farm
e. The entrepreneurial mindset of the promoters, and the apt education that they have undergone in fish farming.
f. The near proximity of constant water supply from Omabala stream(a part of river Niger that extends to Aguleri- the proposed site for the project)

2.4 Inherent Risk

The business is bound to face some challenges. Some of these challenges include;

a. The fact that many companies and individuals have seen this business as a viable one, and are rapidly going into it
b. The unavailability of constant power supply
c. The seasonal promotion of the business. There is a fluctuation in the business, as during festive period, the catfish business tends experience a higher rate of demand.
d. Feeds with inadequate vitamins, rancid oils or mold may stress fish and cause poor growth, disease and bone abnormalities or even death.

2.5 Business Ownership

Aqua catfish farm is a limited partnership firm owned by twelve individuals. The contribution of these individuals would lead to the eventual progress of the business.

2.6 Location and Facilities

Aqua catfish farm is located at 22, Ilochi Street, Amaigwe, Aguleri, Anambra state. The factors that formed the choice of the location include;

- The constant demand for catfish by the people of Aguleri and neighboring villages like Umuleri, Anam, Nteje, Igbariam, Nando, and the inhabitants of Anambra state.
- The proximity to the target clients
- The proximity to the very large Onitsha market where everything is sold
- The proximity to constant water supply from Omabala river
- The availability of land in remote areas that is conducive for fish rearing.

2.7 Available Market

Fish farming has proved to be a liable business in Nigeria today. In Africa today, Nigeria is the largest importer of frozen fish, and requires approximately 1.5 million tons of fish annually to meet demand.

Currently, domestic supply is about 0.5 million tons (over 30% of demand), including massive importation which gulps over 20 million naira. Preliminary market analysis according 25,000 tons 10% increase in current production can be easily absorbed.

The current supply of catfish in the Eastern part of Nigeria especially in Anambra state is relatively below the demand. Over 5000 fish are consumed by the inhabitants of Anambra state weekly. As Onitsha which is regarded as a commercial center; Awka, the city capital and; other neighboring towns and villages serve as viable avenues for the sales of these fish products.

To meet up with this demand which is 50% short, wholesalers import catfish products from other parts of the country, and sell them to retailers and intending buyers. Hence, the choice of a catfish business in the midst of this scarcity would go a long way in meeting a reasonable amount of the demand.

Also, the popularity of the “point and kill” tradition obtainable in hotels, restaurants, mini-restaurants (bukas) has added a profitable edge to the business.

CHAPTER THREE

3.0 Products

Our catfish farm would produce an opportunity in the fish market for the following products

- Fingerlings (for sale to intending fish farmers)
- Table sized fish (for consumption)
- Brood stock

3.1 Product Description

- **Fingerlings**

These are the young catfish that are newly developed from the fries (baby catfish) after a period of six to eight weeks. These fingerlings would be sold to would-be fish farmers who intend to start their fish rearing from this stage.

- **Table-Sized Fish**

The table size is the edible or consumable stage of catfish. At this stage, the fish are bought by wholesalers or retailers, and sold to consumers. It takes about 12 to 18 months for catfish eggs to mature to the table sized fish when it can then be consumed, and at this stage, the catfish weighs 1 pound. At this stage, the fish would be disposed off in the market for human consumption.

- **Brood stock**

This is the most mature stage of a catfish. At this stage, a catfish begins to produce eggs, hence, make babies. It takes about 2 to 3 years for a brood stock to mature and at this stage, it weighs 3 pounds. These brood stock would be sold to would be fish farmers who intend to start rearing fish at their initial stage(as eggs), as these brood stocks lay the eggs that would later be hatched as fries.

3.2 Costing

The major cost of running a fish farm is centered primarily on three important items. These items include the following;

- Feeding
- Infrastructure
- Health care

3.2.1 Feeding

Fish feed cost is about half of variable production costs in catfish culture. It can account for as much as 50% of the cost of commercial fish production. No one feed ingredients can supply all the nutrients and energy cat fish need for best growth. Commercial catfish feed contain a mixture of feedstuff and vitamin and mineral premixes that provide the right essential nutrients as well as the energy necessary to use the nutrients. The amount of each feed ingredient depends on several factors including nutrient requirement, ingredient cost, availability of each ingredient, and processing characteristics. Protein is a major requirement in the nutrients of catfish. These proteins come from inedible tissues from meat packing or rendering plants, milk products and marine sources. Those used in catfish feed include marine fish meals, catfish offal meal, meat and bone/ blood meal, and poultry by product meal.

Catfish meal could be gotten from fresh slaughter house wastes e.g. liver, lung, and blood. The former is boiled for ten minutes and dried in the sun for one week, while the last two are boiled for thirty minutes, and dried for one month. They are then ground to a particle size of 1-2mm. Also, catfish feed would be obtained from moist pelleted ration via meat extruder, and dried feed ingredients. Although all catfish at their different stages in their life cycle feed on different kinds of catfish feed. The tables below give examples of the different feeds at different life stages of the catfish.

Table 1: The Feeds for the Various Catfish Stages and their Costs in 2000kg

Catfish stages	**Types of feed complements**	**Composition supplement**	**Cost of Supplement (N)**	**Total**
Egg stage	No feed required	_____	_____	_____
Fries stage	Ground Meal Grain by product Dried feed meal Meat extruder	130 kg 80 kg 720 kg 70 kg	3025 3425 10050 3950	20450
Fingerlings stage	Floating pellets Ground Meal Grain by product Dried feed meal Meat extruder	100 kg 100 kg 60 kg 680 kg 60 kg	6820 2330 2055 9490 3385	24080
Juvenile stage	Ground Meal Grain by product Dried feed meal Meat extruder	100 kg 90 kg 740 kg 70 kg	2330 3860 10330 3950	20470
Food/ table sized stage	Ground Meal Grain by product Dried feed meal Meat extruder	110 kg 100 kg 700 kg 90 kg	2560 4280 9770 5080	21690
Brood stock stage	Ground Meal Grain by product Dried feed meal Meat extruder Sinking pellet	90 kg 80 kg 750 kg 60 kg 100 kg	2100 3425 10470 3390 4500	23885

Catfish at all stages are fed once in a day, preferably in the morning time, as much feeding is harmful to their health. Table 2 depicts the cost of feeding a catfish per month at all stages.

The different stages of a catfish and their feeds	**Cost of 1000 kg worth of feeds**	**Cost of 1kg of feed (N)**	**Quantity of feed consumed by one catfish a month in kg**	**Cost of feeding a catfish per month (N)**
Brood stock feed	11945	11.945	100g per day x	35.5

			30 days= 6kg	
Food/ Table sized catfish feed	10845	10.845	6kg	32.5
Juvenile feed	10235	10.235	4kg	20.45
Fingerlings	12040	12.04	4kg	24.45
Fries	10225	10.225	3kg	15.3

3.2.2 Infrastructure

The infrastructure needed for this project include two (2) units of 3m by 6m concrete tanks; one (1) unit of 2m by 4m concrete tanks; a farm office with stores; a hatchery with five (3) iron vats; drag net for fish harvesting; hatchery bowls; one (1) water pump; a feed pelletizers; one (1) large earthen pond; a 2.5 KVA generating set.

3.2.3 Health Care

Most newly hatched fries are often exposed to certain illness/ diseases as a result of their new environments. Hence, they are given Artemia Naupli which is a form of vaccine, to protect them from these diseases and untimely death. Besides this, a suitable veterinary doctor or fish specialists would be consulted from time to time to come inspect the fish farm to prevent these diseases and its wide spread.

3.3 Market Demand

The location of this fish farm gives the business a profitable edge. In Aguleri for instance, catfish is seen as the traditional meal. It is often used to prepare white soup popularly known as “Ofe nsala”. Also, the proximity of the farm to the popular Onitsha markets, which attracts tourists, and hotels and restaurants littered around serves as added advantages. Hence, a total estimate of the demand for catfish in Aguleri and its environs on yearly bases is over eight hundred thousand, but according to reports, only about 50% of the demand is supplied yearly, hence the urgent need for fish farmers in Anambra state.

3.4 Projected Annual Demand for Catfish in Anambra State for the year 2011 through 2014

It is very obvious that there would be a constant rise in the demand for catfish in Anambra state overtime. This is as a result of the rapid immigration of people into the fast developing state for business, and many other affairs. Hence, the demand figure for catfish is estimated to rise at 1% in three years. The table below shows the annual percentage increase in the demand for catfish in Anambra state.

Table 3; Projected Annual Demand for Catfish in Anambra state

Years	Annual growth rate	Projected demand
Base year (2011)	1%	600000
2017	1%	608000
2018	1%	616000
2019	1%	600000

Total	4%	2424000
Average	1%	412000

Therefore, the projected average annual demand for catfish in Anambra state and its environs is about 612000 food sized fish.

3.5 Projected Demand-Supply Gap of Catfish in Anambra State and its Environs

Out of the 612000 annual demands in Anambra state, it is only about 50% of the demand that has been met as most people are not into the fish farming business; the table below shows the demand-supply gap of catfish in Anambra state and its environs.

Adjustment	**Demand-supply Gap**
• Estimated average demand	612000
• Minus 50% of current supplies	206000
• Balance after the above subtraction	406000
• Minus 50% of the balance which is as a result of the rising population of people venturing into the business	206000
• Balance after the above subtraction	206000
• Minus 10% estimate error	20600
• Estimated demand-supply gap (which is the balance after the above subtraction)	185400
• Anticipated annual production of catfish by Aqua catfish farm	35000

Hence, Aqua fish farm would sell about 10000 catfish yearly which is about 5.4% of the total demand supply gap. Hence, this business promises to be very lucrative and profitable.

CHAPTER FOUR

Market and Customer

4.0 Marketing

According to the testimony of the people already in the market, the business has proven to be very successful as most people are very interested in catfish because of its unique taste, and nutritional value.

4.1 Customer / Market Segmentation

The classes of the customers of the catfish farm are households; hotels/restaurants; wholesalers; retailers and; would-be farmers.

Restaurants and hotels buy catfish in large quantities and use them in preparing dishes. Most of these restaurants practice a peculiar tradition known as “point and kill”. They operate small concrete catfish pond where they stock up their fish, and customers are allowed to visit the pond and pick the catfish of their choice, which would subsequently be prepared to their taste.

Some retailers buy catfish from farms or wholesalers and roast them at the road sides as barbecue or fry them and display them for sale

An average family in Anambra state enjoys eating catfish; hence, their demand for catfish makes the wholesalers’ demand from farms very constant. They buy this fish when it weighs 1to 2kg

Would-be farmers who do not want to start rearing their catfish from the egg stage tend to purchase fingerlings which they rear to the food sized stage and then sell all off and buy new set of fingerlings.

CHAPTER FIVE

5.0 Marketing Plan

Despite the urgent need for catfish in Anambra state, most of the demands have not been met due to the ignorance of stake-holders on the profitability of the business. This serves as an edge for the promoters of Aqua catfish farm as there is lesser competition in the market.

5.1 Promotion Strategy

In an attempt to promote the business, the promoters would embark on a continual advertisement by placing signposts and sharing handbills to people which would contain vital information about the business. Also, the business would give samples of their products to interested patronize. Also, from time to time, according to the income of the farm, adverts would be placed in radio stations in order to reach a wider audience.

5.2 Marketing Strategy

Aqua catfish farm has set up its business in such a way that 834 table sized fish, 2000 fingerlings, and 10 brood stocks would be sold on a monthly bases at very competitive prices.

Also, to entice more customers, the farm would engage in raffle draws once in a while, and winners would be rewarded with deep freezers.

5.3 Projected Sales

Every month in the first year, 2000 fingerlings would be sold at the rate of N25 for each. Hence, in a year, 24000 fingerlings would be sold to would-be farmers at the rate of N25 per fingerling, making it a total of N600000 annually. As reproduction continues, the sales of fingerlings would increase, as more fingerlings would be produced by the brood stocks.

Similarly, 1000 table sized fish would be produced on monthly bases and sold at the rate of N350 for 1kg i.e. one table sized fish. Hence in a year, a total of 12000 fish would be sold, realizing N4200000 annually. Also, as production continues, and the fish pass the different stages and the sales increase.

The brood stock is a special stage of the catfish, as they are responsible for fertilization and reproduction. But as they grow older say to 2-3kg they tend to become stagnant in their production, hence, are sold out, as more table sized fish are reared to assume their role. Therefore, on yearly bases, 2280 brood stocks would be sold at N1200 each after the end of the first year, has it takes 12 months for an egg to mature into a brood stock. Hence, the price from the sales of these brood stocks after the first year is 2736000.

The table below explains these figures with yearly growth rate of 100% in the first year, and 30% growth rate from the previous year sales.

	Sales from Fingerlings (N)	**Sales from Table Sized Fish (N)**	**Sales from Brood Stock (N)**	**Total Sales (N)**

Year 2017	600000	4200000	Nil	4800000
Year 2018	1200000	7140000	2736000	11076000
Year 2019	1560000	9280000	3556800	14396800

CHAPTER SIX

6.0 Technical Analysis

A typical production cycle for catfish begins at spawning of the broad stock. The broad stocks are held in separate ponds, and they mate randomly. Their fertilized eggs are collected from sprawning containers and moved to hatcheries. The eggs fertilize after 5 to 8 days of incubation to fries. The fries are reared in the hatcheries for additional 4 to10 days; they are then transferred to nursery ponds and harvested 8 weeks later as fingerlings. The fingerlings take 3-4 weeks to mature into juveniles. After 6 months, they are harvested as food sized catfish. These are then sold, while some are left for another 12 to 24 months to develop into brood stocks which are responsible from fertilization and reproduction.

6.1 Schedule of Operation

Aqua fish farm would commence operation by purchasing ten (10) brood stocks at N1200 per stock. These brood stocks would be made up of four (4) male catfish and six (6) female catfish. These brood stocks would be kept to fertilize in a pond, and after they have mated, the female brood stocks get to lay eggs in large quantities continuously for 30 days. These eggs are then collected with nets and stored in hatcheries, where they would hatch into fries after 4-5 days. 2000 fries can be breed in nursery ponds of one meter square. Then they grow into fingerlings after 6-8 weeks. These fingerlings can then be transferred to the main pond and are fed for 3-4 weeks to grow to the juvenile stage at the weight of 8-10g. They are then reared for approximately 6 months to the table size. While some are sold at this stage, others are retained and trained into new set of brood stocks as the ones that were bought at the beginning of the business must have grown old, hence, unable to produce. The table below shows the farm operation schedule for the catfish at their different stages:

A Table Showing The Production And Expected Income For Aqua Catfish Farm

	Brood Stock	**Eggs**	**Fries**	**Fingerlings**	**Juvenile**	**Food sized**	**No. of fingerlings sold**	**No. of food sized catfish sold**	**No. of brood stock sold**	**Expected sales**
1 Jan	10	-	-	-	-	-	-	-	-	-
2 Feb	10	2500	2450	-	-	-	-	-	-	-
3 Mar	10	2500	4900	-	-	-	-	-	-	-
4 Apr	10	2500	7350	2400	-	-	2000	-	-	500000
5 May	10	2500	7350	2800	400	-	2000	-	-	500000
6 Jun	10	2500	7350	2800	800	-	2000	-	-	500000

7 Jul	10	2500	7350	2800	1200	-	2000	-	-	500000
8 Aug	10	2500	7350	2800	1200	-	2000	-	-	500000
9 Sep	10	2500	7350	2800	1200	-	2000	-	-	500000
10 Oct	10	2500	7350	2800	1200	-	2000	-	-	500000
11 Nov	10	2500	7350	2800	1200	395	2000	1000	-	850000
12 Dec	10	2500	7350	2800	1200	395	2000	1000	-	850000
Total	10	3000 0								
13 Jan	10	2500	7350	2800	1200	395	2000	1000	190	3130000
14 Feb	10	2500	7350	2800	1200	395	2000	1000	190	3130000
15 Mar	10	2500	7350	2800	1200	395	2000	1000	190	3130000
16 Apr	10	2500	7350	2800	1200	395	2000	1000	190	3130000
17 May	10	2500	7350	2800	1200	395	2000	1000	190	3130000
18 Jun	10	2500	7350	2800	1300	395	2000	1000	190	3130000
19 Jul	10	2500	7350	2800	1200	395	2000	1000	190	3130000
20 Aug	10	2500	7350	2800	1200	395	2000	1000	190	3130000
21 Sept	10	2500	7350	2800	1200	395	2000	1000	190	3130000
22 Oct	10	2500	7350	2800	1200	395	2000	1000	190	3130000
23 Nov	10	2500	7350	2800	1200	395	2000	1000	190	3130000
24 Dec	10	2500	7350	2800	1200	395	2000	1000	190	3130000
25 Jan	10	2500	7350	2800	1200	395	2000	1000	190	3130000
26 Feb	10	2500	7350	2800	1200	395	2000	1000	190	3130000
27 Mar	10	2500	7350	2800	1200	395	2000	1000	190	3130000
28 Apr	10	2500	7350	2800	1200	395	2000	1000	190	3130000
29 May	10	2500	7350	2800	1200	395	2000	1000	190	3130000
30 Jun	10	2500	7350	2800	1200	395	2000	1000	190	3130000
31 Jul	10	2500	7350	2800	1200	395	2000	1000	190	3130000
32 Aug	10	2500	7350	2800	1200	395	2000	1000	190	3130000
33 Sept	10	2500	7350	2800	1200	395	2000	1000	190	3130000
34 Oct	10	2500	7350	2800	1200	395	2000	1000	190	3130000
35 Nov	10	2500	7350	2800	1200	395	2000	1000	190	3130000
36 Dec	10	2500	7350	2800	1200	395	2000	1000	190	3130000

In the above table, the reason to the decline in number as the fish pass each stage in the first year is that some die before they get into the next stage, but in the case of the difference between the eggs and the fries is that some eggs do not hatch, some are lost in the process of the transfer from the brood stock ponds to hatcheries.

The table for the cost of feeding the fish at their different stages

	Cost for feeding brood stocks (N)	**Cost for feeding fries (N)**	**Cost for feeding fingerlings (N)**	**Cost for feeding juveniles (N)**	**Cost for feeding food sized (N)**	**Total (N)**
1 Jan	350					
2 Feb	350	36750				37100
3 Mar	350	73500				73850
4 Apr	350	110250	58680			169280
5 May	350	110250	68460	8180		187240

6 Jun	350	110250	68460	16360		195420
7 Jul	350	110250	68460	24540		203600
8 Aug	350	110250	68460	24540		203600
9 Sep	350	110250	68460	24540		203600
10 Oct	350	110250	68460	24540		203600
11 Nov	350	110250	68460	24540	32500	239100
12 Dec	350	110250	68460	24540	32500	239100
13 Jan	350	110250	68460	24540	32500	239100
14 Feb	350	110250	68460	24540	32500	239100
15Mar	350	110250	68460	24540	32500	239100
16 Apr	350	110250	68460	24540	32500	239100
17 May	350	110250	68460	24540	32500	239100
18 Jun	350	110250	68460	24540	32500	239100
19 Jul	350	1010250	68460	24540	32500	239100
20 Aug	350	110250	68460	24540	32500	239100
21 Sept	350	110250	68460	24540	32500	239100
22 Oct	350	110250	68460	24540	32500	239100
23 Nov	350	110250	68460	24540	32500	239100
24 Dec	350	110250	68460	24540	32500	239100
25 Jan	350	110250	68460	24540	32500	239100
26 Feb	350	110250	68460	24540	32500	239100
27Mar	350	110250	68460	24540	32500	239100
28 Apr	350	110250	68460	24540	32500	239100
29 May	350	110250	68460	24540	32500	239100
30 Jun	350	110250	68460	24540	32500	239100
31 Jul	350	110250	68460	24540	32500	239100
32 Aug	350	110250	68460	24540	32500	239100
33 Sept	350	110250	68460	24540	32500	239100
34 Oct	350	110250	68460	24540	32500	239100
35 Nov	350	110250	68460	24540	32500	239100
36 Dec	350	110250	68460	24540	32500	239100

Cost of health care

As earlier stated in the previous part three, professional on health care of catfish would be consulted every two months. The promoters of the farm have therefore budgeted N150000 for every visit of these professionals once in every two months.

6.2 Management and Organization of Aqua Catfish Farm

Aqua catfish farm is a limited partnership organization, owned and controlled by the principal owners. Since everyone cannot be at the head, the management team has chosen Ifezuoke joy to head the overall affairs of the organization, as she has undergone trainings and attended seminars on catfish farming, hence, has a wider experience in the business.

But to help in the day-to day running of the business, several hands have been employed. They are included in the table below

S/N	**Positions**	**No. of staff**	**Annual salary per staff (N)**	**Total**
1.	Director	1	80000	80000
2.	Farm assistants	2	60000	120000

3.	Organization's business administrator	1	50000	100000
4.	Security	1	60000	60000
	Total	5	300000	360000

Below is a typical example of the organogram of the Aqua catfish farm organization

CHAPTER SEVEN

Legal, Environmental, Social and Regulatory issues

7.0 Legal issues

Research has been made, and it has been discovered that no legal law binds catfish farming in Nigeria, but there is an association of catfish farm owners in Nigeria presently. Hence, proper steps and measures have been taken to register the organization with this association that serves as an umbrella that brings catfish farm owners together.

7.1Environmental issue

There is no doubt that rearing catfish close to the human community could be hazardous. With this in mind, the director of this organization has put in place, strong machineries to see to the affairs of the environment.

7.2 Social issue

There is no doubt that the creation of this fish farm is more of a blessing to people of Aguleri, where the land is situated. Some of the benefits of this are that with the expansion of this farm, people would visit the town more in a bid to patronize the farm. This would enhance rapid development of the area. It would bring about wealth creation poverty alleviation in Aguleri

7.3 Regulatory issues

The organization would in its best way maintain and promote the culture of its host community.

CHAPTER EIGHT

8.0 Risk Analysis

The inherent risks that were mentioned in the chapter two of this work has been properly considered, and some solutions have been offered for them. Below is a table showing these risks and the ways these shortcomings have been planned to be met.

Inherent Risk	Recommended solutions
The fact that many companies and individuals have seen this business as a viable one, and are rapidly going into it.	The quality and hygienic products of Aqua farm gives it an edge over other similar businesses.
The unavailability of constant power supply	A 2 KVA generating set has been bought to meet up with the need for electricity
The seasonal promotion of the business. There is a fluctuation in the business, as during festive period, the catfish business tends experience a higher rate of demand.	The organization with the advice of experts has decided to move in line with the market demand at each given time
Feeds with inadequate vitamins, rancid oils or mold may stress fish and cause poor growth, disease and bone abnormalities or even death	The feeds for all the stages of the catfish have been properly prepared to provide the right quantity of nutrients that the catfish require.

8.1 SWOT Analysis

This is the analysis of Aqua catfish farm to check its strength, weakness, opportunities and threat. Based on the analysis, the following was discovered

8.1.1 Strengths

- The major strength in this business is our employment of experienced staff, who already have previous knowledge of the business, and are willing to contribute this knowledge to the continual growth of the company
- Also, our choice of the location for the establishment of this business which has a very reliable and constant water supply is an added advantage to the growth of the business.
- Government's support by granting loan to graduates who are willing to be entrepreneurs in the agricultural sector

8.1.2 Weakness

- One of the few weaknesses of the business its lack of machine used in processing locally made feeds. Hence, the organization has to buy already prepared local feed from local dealers at a higher rate.

8.1.3 Opportunity

- Our entrance into this unique market would yield tremendous profit, as the demand for catfish is fast rising.

8.1.4 Threat

The major threat to the success of this business is the population of immigrants into the business.

To checkmate this threat, the organization has employed expertise as most of these entrants do not have adequate knowledge or information on the day-to-day running of the business.

8.2 Exit Strategy

No exit strategy has been adopted as our organization has no interest in withdrawing from this lucrative business.

CHAPTER NINE

Aqua Catfish Farm's Financial Analysis

9.1 Summary of Project Cost

The estimated cost for the running of this business at its initial stage is N800000. The fixed capital investment is N 300000 while the working capital cost is N500000

9.2 Fixed Capital Investments

For the effective running of this business, 2 plots of land have been purchased in Amaigwe Aguleri. Below is a synopsis of the fixed capital investment

s/n	Item Description	Qty	Unit Price (N)	Total Amount (N)
1.	3m by 6m concrete tank	2	150000	350000
2.	2m by 4m concrete tank	1	120000	120000
3.	Small farm office with stores	1	320000	320000
4.	Hatchery with 3 vats	1	90000	90000
5.	Drag net	1	12000	12000
6.	Hatchery bowls	10	1200	12000
7	Feed pelletizers	2	5000	10000
8	Earthen pond	1	150000	150000
9.	Generator	1	10000	10000
10	Pump machine	1	25000	25000
	Sub-total A		**883200**	**109900**
	Investment in Brood stock			
11	Brood stock (male and female)	10	1200	12000
	Sub-total B		**1200**	**12000**
	Grand Total			**1111000**

9.3 Utilities

The location of the business is such that there is no need for the payment of water bills, because of its proximity to the Omabala stream, which flows from River Niger. Hence the only expense made in this aspect is power supply. The table below depicts the expense in utility for three years

Utility	Year 1 (N)	Year 2 (N)	Year 3 (N)
Power supply	12000	12240	12480

From the above table, we can depict that the cost of power supply on a monthly bases in the first year is: 12000/ 12 months = 1000

Besides these above stated expenses, there are other expenses that are incurred during the operation of this business. They are represented in the table below;

A Table on Other Operating Expenses

Type of expenses	Year 1 (N)	Year 2 (N)	Year 3 (N)
Public relations / advertisement	50000	52400	54800
Miscellaneous	15000	17000	19000

Total	**65000**	**69400**	**73800**

9.4 Working Capital Forecast

An entrepreneur has to forecast the percentage growth rate of his working capital, in other to have an estimate of the expenses intended. The working capital is made up of all the expenses that are not under the fixed capital. For our catfish business, we forecast that there would be a 10% increase annually on the cost price of most items. Hence, the table below would guide us on the capital forecast.

Working capital items	**Year 0 (N)**	**Year 1 (N)**	**Year 2 (N)**	**Year 3 (N)**
• Feeds for all the stages of the catfish	239100	239100	263010	286920
• Utility	12000	12000	12240	12480
• Salaries/ wages	110000	110000	121000	132000
• Working capital	361100	361100	396250	431400

9.5 The Synopsis of the Investment Capital

The total start-up capital for Aqua catfish farm is summarized in the table below

s/n	**Capital Items**	**Amount(N)**
1.	Fixed capital investment	300000
2.	Working capital requirement	161100
	Total	461100

9.6 Financial Plan

To finance the business, N600000 would be borrowed from the bank as loan, while equity worth N200000 would be realized, as each member of the limited partnership business will contribute N100000 each. The table below shows the financing plan of the organization

A Table for the Financing Plan of the organization

Sources of capital	**Amount (N)**
Bank loan	600000
Equity contribution	200000

9.7 Loan Repayment Schedule and Interest Paid

Our loan would be paid to the bank on yearly installation at 10% interest rate yearly. The table below depicts the repayment of loan plan.

	Loan	**Repayment**	**Interest**	**Loan balance**
Year 1	600000	Nil	100000	100000
Year 2	600000	400000	200000	500000
Year 3	300000	550000	50000	Nil

9.8 Depreciation

The fixed capital items are bound to wear-out after a period. Hence, the depreciation rate is calculated in the table below

s/n	Fixed capital item	IV	Depreciation after year 1	Depreciation after year 2
1.	3m by 6m concrete tank	300000	15000	15000
2.	2m by 4m concrete tank	120000	6000	6000
3.	Small farm office with stores	320000	16000	16000
4.	Hatchery with 3 vats	90000	9000	9000
5.	Drag net	12000	1000	1000
6.	Hatchery bowls	12000	1200	1200
7.	Feed pelletizers	10000	1000	1000
8	Earthen pond	25000	1250	1250
9	Generator	10000	2000	2000
10	Pump machine	25000	5000	5000
	Total		**57450**	**57450**

9.9 Forecast of Profit and Loss

Particulars	**Year 1 (N)**	**Year 2 (N)**	**Year 3 (N)**
Expected sales	480000	1107600	1439680
Net sales	**480000**	**1107600**	**1439680**
Expenses			
Cost of farm operations	135010	137401	139792
Utilities	12000	12240	12480
Other expenses	65000	69400	73800
Salaries and wages	110000	121000	132000
Total expenses	**153710**	**157665**	**161620**
Profit before Int. and tax	**326290**	**949935**	**1278060**
Less interest	100000	200000	50000
Profit before tax	316290	929935	1273060
Less 10% tax	Nil	929935	1273060
Profit after tax	316290	836941	1145754
Less depreciation	57450	57450	
Net profit	**310545**	**836396**	**1145754**
Retained earnings	110545	336396	3457540
Dividend	200000	500000	8000000

9.10 Cash flow projection

Cash in;	**Year 0 (N)**	**Year 1(N)**	**Year 2 (N)**	**Year 3 (N)**
Equity	200000			
Bank loan	800000			
Net profit		310545	836396	1145754
Depreciation		57450	57450	57450
Total cash in	800000	304800	830651	1140009
Cash out				
Fixed capital	100000			

equipment				
Working capital	361100			
Loan repayment			700000	550000
Dividend			500000	800000
Total cash out	272100		570000	855000

9.11 Balance Sheet Projection

	Year 0 (N)	**Year 1 (N)**	**Year 2 (N)**	**Year 3 (N)**
Fixed assets; Fixed capital equipments	100000	100000	100000	100000
Depreciation		57450	114900	174350
Net fixed assets	100000	116855	126000	185435
Total assets	100000	116855	126000	185435
Long term liabilities;				
Equity	200000	100000	100000	100000
Retained earnings		1105450	3363096	345754
Bank loan	600000	600000	400000	
Total of long-term liabilities	800000	205450	4630965	357540
Current liabilities				
Loan payments			400000	450000
Total of current liabilities			500000	350000
Total liabilities	1600000	2010900	3966193	471508

CHAPTER TEN

10.0 Conclusion

One can therefore say that catfish is a very profitable business, that has a very high possibilities to succeed tremendously.