

UNIVERSITY OF NIGERIA NSUKKA

FACULTY OF AGRICULTURE

DEPARTMENT OF HOME SCIENCE NUTRITION AND DIETETICS

A BUSINESS PLAN SUBMITTED IN PARTIAL FULFILLMENT FOR

THE REQUIREMENT OF THE COURSE CED 342 (BUSINESS

DEVELOPMENT AND MANAGEMENT)

TOPIC: PRODUCTION AND DISTRIBUTION OF PACKAGED READY

TO EAT SNAILS

BY

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DELIGHTFUL SNAILS

PART 1

1.0 Executive Summary

- 1.1 The following report and recommendation relate to the proposal by Delightful Snail Company to establish a company that produces and packages ready to eat snails at Emene Enugu State Nigeria.
- 1.2 The project will require a start-up capital of **N234, 987.7**, made up of **N164, 740** for direct material cost, **N44, 300** for direct labour cost and **N25, 947.7** for indirect costs.
- 1.3 The company's vision is to be the most outstanding producer and distributor of hygienically prepared snails packaged in high quality materials of various kilogram sizes at affordable prices for the convenience and pleasure of our customers.
- 1.4 The project will be located at Enugu because of its easy access to target market from that location.
- 1.5 A huge market is available for the business to serve (gourmet stores, supermarkets, Kitchens, restaurants and hotels).
- 1.6 The financial projections show that the project would be financially stable and liquid by the time it matures.
- 1.7 The competitive edge of the business lies in its ability to produce and distribute fresh, frozen, cheap, easily accessible and hygienically packaged ready to eat snails in an area where the business is a one of its kind.
- 1.8 The profitability measures are as shown below:

YEAR	ESTIMATE SALES AND NET PROFIT (N)
1	505947.7
2	329200
3	229200
4	188200
5	556700

Part 2

2.0 Introduction

The planned processed and packaged snail project is the result of strong industry and needs assessment studies undertaken in the South Eastern zone of Nigeria, particularly Enugu by the promoters of this project. The studies reveal that the demand for already processed and packaged snails is high while there are very few companies to attend to this need. Also, the rising need for nutrient diversification in the country has a positive influence on the consumption rate of snails, as it is a good source of protein, potassium, vitamin E, iron, magnesium, phosphorus, copper and selenium. However, there is need to go beyond ordinary supply of snails because some people avoid purchasing it because of its method of processing before consumption. The needs assessment studies reveals that there will be an increase in snail consumption if it is sold in an already processed and

packaged form. This rising demand in snail consumption is expected to be sustained into the future.

2.1 Vision

To be the most outstanding producer and distributor of packaged ready to eat snails in the South East of Nigeria, especially in Enugu.

2.2 Mission

To procure, process and distribute packaged ready to eat snails of premium quality under standard hygienically approved conditions.

2.3 Key Success Factors

The key success factors are;

- a) The procurement of different sizes of snails which will be sorted to fit into the financial status of every customer.
- b) Snails do not die easily and they are not easily affected by diseases.
- c) Snails do not require much in terms of feeding.
- d) The main promoter has undergone training in entrepreneurship.
- e) Existence of reliable market outlets.

2.4 Inherent Risks

- a) Presence of predators such as insects, birds, lizards, toad, frogs, nematodes millipedes and fungi which feed on snails.
- b) Human interferences including vibration and unnecessary noise from automobiles and industries within.
- c) Theft
- d) The entrants of competitors to this line of business following the implementation of this project.
- e) Pens wetting especially during the dry season thereby affecting availability of snails.

2.5 Business Ownership

The business is a sole proprietorship wholly owned and managed by Elomba Afoma.

2.6 Locational Factors

The ready to eat packaged snail project is located at Emene Enugu. The choice of the location was based on the following:

- a) Existence of good road network and ease of market access.
- b) Availability of cheap and reliable labour.
- c) Its nearness to snail farms in Enugu will reduce the cost of transportation on snail procurement.
- d) Easy access to snail farms in Enugu.
- e) Availability of space.
- f) Good market potential.
- g) Less number of competitors.

2.7 Available Market

Information from survey shows that about 4000 medium paint buckets of snails are demanded yearly in Enugu area, while that of the south east of Nigeria has been put at above 1, 500,000 painters per annum. This demand figure is expected to rise as the population within the market area being targeted increases. Also, with the new form of delivery, the figures are expected to rise. Furthermore, within Enugu, survey has it that about 40% of snail demand is met by the existing snail providers living a supply gap of 60%. This is good news to new entrants into the snail providing business.

PART 3

3.0 Products

Delightful snails will provide ready to eat packaged snails in different sizes at an affordable prize.

3.1 Product Description

The ready to eat packaged snails will be of different breeds including Archachatina marginata, Achatina achatina. The large table size snails will weigh between 400g and 800g. They will be packaged in light recyclable plastic box containers which will be stored under refrigerating conditions before distribution.

3.2 Costing

This is done based on the price for procurement of snails, the processing requirements and the packaging process.

3.3 Market Demand

Delightful Snails is located at Emene in Enugu State which is within reach to gourmet stores, supermarkets, kitchens, restaurants and hotels. Also, feasibility assessment has revealed that there is high demand for the product in supermarkets especially Shoprite super market which is located at the heart of Enugu town.

3.4 Projected Annual Demand of Medium Paint Bucket of Snails In Enugu and its Environs (2016-2017).

As earlier stated, about 40,000 medium paint bucket of snails were demanded yearly in Enugu and its environs. This figure is expected to grow with the growth in population. Thus, since population growth rate in the area hovers around 2.5% to 3.25% for about five years now, it seems rational to expect that the demand for snails will grow with at least a growth rate of ½% for the next three years.

PART 4

Market, Customers and Competitors

4.0 Market Analysis

Delightful Snails has an exciting business opportunity since there is a huge market for snails in Enugu and its environs. The increase in population is good for business. Also, with the rising rate of health conditions which necessitates the need for snail consumption, things can only get better for the business.

4.1 Customers/Market Segmentation

The following are the classes of customers for the company:

- a) **Supermarkets:** These class of buyers buy to stalk in the shelves of their supermarkets. They usually buy in bulk and sometimes pay in advance.
- b) **Kitchens:** They usually buy in bits and they do not usually make advance payments.
- c) **Restaurants/hotels:** Like the supermarkets, they buy in bulk and sometimes make advance payment. However, they are price sensitive and they are particular about the sizes and quality of the snails as they are into hospitality business.

Delightful Snails plans to articulate appropriate marketing strategy for each class of customer.

PART 5

5.0 Marketing Plan

There are no major providers of ready to eat snails in Enugu area. Hence, there is complete absence of structured companies that can really put up commendable competition. Therefore, if Delightful Snails commences operations as planned, it will be a market leader in no distant time.

5.1 Marketing Strategy

The marketing strategy adopted includes the “4 Ps” method. The “4 Ps” are :

1. Product
2. Price
3. Place and
4. Promotion

- **Product:** The ready to eat packaged snails will be properly washed, packaged and weighed accordingly in order to be supplied to places of need.
- **Price:** The price of the snails depends on its weight and quality. The matured processed snail will cost N600 to N700 per snail.
- **Place:** The main sight of the company will be located in Emene Enugu. It is an industrial area, and there is readily available market for snail procurement. Also, the sight is easily assessable to prospective buyers.
- **Promotion:** Delightful Snails will embark on an aggressive awareness campaign on the health benefits of snails, also on the provision of snails in a better package than the one people are already used to (purchasing of raw snails). This will make the demand for snails to really increase, thereby increasing the demand for processed snails. To do this, Delightful Snails plans to use fliers, outreach sensitization programmes, radio and also television programmes. The will also sponsor cooking competitions to reach out to prospective customers. Also, discount shall be given with respect to quantities purchased. Some of the ready to eat snails will be made available to people who might want to taste the product.

PART 6

Technical Analysis, Management and Organization

6.0 Technical Aspects

6.1 Plant and Machinery Requirement

A standard refrigerator is required to keep the processed raw snails frozen before packaging. The packaging requires light plastic recyclable small boxes.

6.2 Raw Materials Required For The Business

The direct raw materials required for the business are:

1. Plastic aquarium for transportation of snails when procured
2. Manual water sprinkler
3. Lumps of alum
4. Light plastic recyclable small boxes for packaging
5. Salt
6. Soil(humus, from gardener’s shop)
7. Ashtray or small plastic box

6.3 Buying and Collecting: Breeds of snails can be purchased from competent snail farmer who ensures that the snails are of the same sizes are sold to enhance their reproduction. Snails are also collected freely from the environment during the rainy seasons. The best location for collecting snails are cities with green vegetables, under stones, damp, in a day that rainfall is expected or where it has

rained already, because that is the time when land snails come out. Note: make sure to buy or pick snails of about the same size, otherwise the reproduction will not be fertile enough.

6.4 Infrastructural Requirements:

There is access road to the snail processing company. There is also presence of constant power supply and water. The availability of a standard refrigerator is also of immense help to the business.

6.5 Environmental Analysis

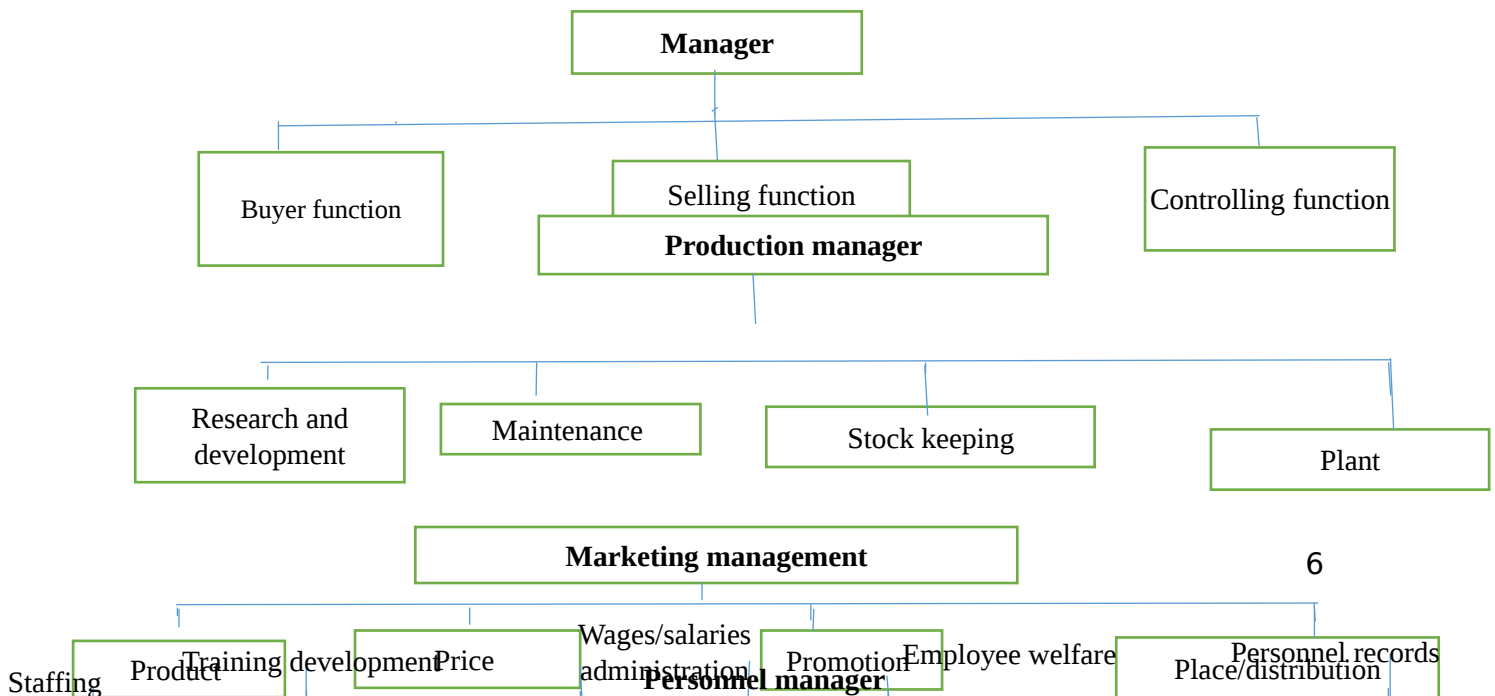
Snail production and packaging is environmental friendly and as such do not add any danger to the environment. Snails have no odour, no noise and no irritation. The presence of snails helps to reactivate the soil and makes it fertile.

Management and Organization

6.6 Form of Business and its Establishment

The business is a sole proprietorship business. The idea was considered lucrative prior to its high income earning capacity and simplicity of operation.

6.7 ORGANIZATIONAL STRUCTURE OF THE BUSINESS



6.8 Manpower Requirement

Both skilled and unskilled staff will work in the company. While some will work full time, others will work on a part time basis. Below are the names of expected workers and their respective functions.

Names	Tasks		
Uche	Buying	PT	USK
Abdul	Collecting	PT	USK
Ada	Packaging	FT	SK
Emeka	Maintaining	FT	SK
Ugo	Selling	FT	USK
Amaka	Recording	FT	SK
Obi	Managing	FT	SK
Kunle	Promoting	FT	SK
Audu	Distributing	FT	USK
John	Processing	FT	SK
Ladi	Securing	FT	SK
Oge	Sanitizing	FT	USK

KEY: PT=Part Time, FT=Full Time, SK=Skilled, USK=Unskilled.

NOTE: Number of workers SK=7, Number of workers USK=5, Number of workers FT=10, Number of workers PT=2.

TOTAL NUMBER OF WORKERS REQUIRED=12.

6.9 Manpower Cost

The manpower cost of the business depends on the hours spent on the processes of production and packaging, and the training of the worker (skilled or unskilled). The calculation for the manpower cost is done in the direct cost form and the indirect cost form respectively.

PART 7

Legal, Social and Regulatory Issues.

7.0 LEGAL AND REGULATORY FRAMEWORK

The legal responsibilities as I undertake the business will include

The following:

1. Paying taxes (sales tax, capital gain tax)
2. Getting licenses and permits
3. Registration with Corporate Affairs Commission, (CAC)
4. Obeying regulations regarding employees, such as working hours, holidays, occupational safety and health, sick leave, settling of disputes, injuries at the work place and minimum wages.
5. **Insurance:** The business shall be insured against drop in the demand of snails and snail's products. The uninsurable risks such as theft and invasion of predators into the snail's pen which can eat up a whole lot of them cannot be insured and as such, care and adequate security will be provided for it.

7.1 Social Issues

The implementation of the project will bring about social and economic benefits to the society. Snail is an export commodity, which has value next to gold in overseas countries. Economically, snail is a real export market that earns foreign revenue without you running from pillar to post. If your start-up capital is N100, 000 you can generate the sum of one million naira in one year. Socially, snail's shells are used for recreational purposes including beautification of homes, and many other events. This also boosts the economy of a country. The shell of snail is also of industrial importance as it is used in the manufacture of other raw materials. Its enzymes are used in genetic engineering for cell wall treatment. The supposed waste aspect of snail after processing is essential in agriculture and particularly in fish farming.

PART 8

8.0 Risk Analysis

Both systematic and unsystematic risks confront the business. The systematic risk includes government policies and this is external, while the unsystematic risks are internal and include the following:

1. Theft
2. Predators: ants, lizard, ear wigs, toads, millipedes
3. Harsh lighting
4. Unnecessary noise
5. Vibration
6. Human interference

8.1 Strategy To Mitigate The Risks

The litigants to the potential risks of the business include:

1. During the dry season, adequate water supply should be sprinkled over the pen to enhance their feeding, reproduction and keeping them alive. Failure to wet their pen makes them went on aestivation or period of dormancy.
2. Adequate security against theft
3. Avoiding any form of human interference to the pens, including the use of harsh lighting torch at night and unnecessary vibration and noise.
4. Insuring the business against unstable government policies, which is the most important systematic risk controlling the business.

8.1 SWOT Analysis

The SWOT analysis reveals the strengths, weaknesses, opportunities and threats of the business idea.

8.2.1 Strengths: The following constitutes the strengths of the business:

1. Adequate start-up capital
2. Low risks of production
3. Availability of high quality breeds of snails
4. High demand for snails
5. Good market potential
6. Best location (area with fresh vegetation)
7. Best weather condition
8. Few competitors
9. Availability of space
10. Good communication network
11. Good road network
12. Adequate manpower (skilled and unskilled)

8.2.2. Weaknesses: The following are the weaknesses open to the business:

1. Payment of taxes (e.g., sales tax, capital gain tax)
2. Getting licenses and permits
3. Registration (e.g., with corporate affairs commission, C.A.C)
4. Insurance (Certain risks such as fire, export credit and accident will be insured)
5. Local competitors (e.g., rural dwellers)
6. Obeying employers' regulation (e.g., granting of sick leave, holidays to workers, settling of disputes).

8.2.3. Opportunities: The opportunities includes:

1. Collection of snail breeds is free. Especially during rainy seasons, snails are collected from under stones, damp, leaves and cover crops.
2. Snail feeding is simple. Snails are vegetarians and as such their feeds are very local, mostly juicy vegetables which are available in the area.
3. It is easy to maintain. One only needs to change the feeds in the snail's pen once a week to prevent rotting. Their pens are simply covered with nets to protect them from predators.
4. As a part-time vocation, it can be successfully run alongside one's actual job or other businesses.
5. If a grower begins a snail farm with say 50 snails, it can produce averagely up to 250,000 adult snails worth over N500, 000 in a year.
6. The risk of losing snails in the farm is very low compared to other livestock farming.
7. Enugu State has one of the best climates for snail rearing.
8. Lastly, snails hardly fall sick, they are hermaphrodite; you don't have to buy food, you don't spent much to create an abode for them, they reproduce rapidly and are very important foreign exchange income earner of our days.

8.2.4. Threats: The basic threats to the business are mainly unsystematic risks which include the following:

1. Presence of predators such as insects, birds, lizard, toad, frogs, nematodes, millipedes, ear wigs and fungi.
2. Human interferences including vibration and unnecessary noise from automobiles and industries within.
3. Harsh lighting torch, lanterns and sounds.
4. Theft.

5. Pens wetting especially during the dry season.

The other threats confronting the business are systematic and as such, the business shall be insured to overcome unstable government policies and regulations. From the SWOT analysis above, it is crystal clear that the opportunities of the business outweigh the challenges. Hence, the business idea is feasible and can be executed without you running at lost because the financial benefits levels out the challenges.

PART 9

FINANCIAL ANALYSIS

9.0 Foreign Exchange Savings

The detailed cost of the business includes the direct materials costs, direct labour costs and indirect costs, which gives the total cost of the business.

9.1 DIRECT COSTS OF THE BUSINESS

Direct material cost form per item/1 batch of matured land snails

1	2	3	4
RAW MATERIAL	BUYING COSTS (N)	QNT/ITEM	COST/ITEM (N)
Breeds of snails	10/breed	300	3000
Plastic aquarium	450	40	18000
Manual water sprinkler	680	50	34000
Sponge or rag	150	14	2100
Humus rich soil	450/kg	85kg	38250
Lumps of alum	700	54	37800
Salt	450	55	24750
Light recyclable plastic for packaging	380	18	6840
TOTAL			164740

9.2 DIRECT LABOUR COST

Direct Labour Cost Form/ One batch of mature land snails

			Direct Costs	Labour (N)	Indirect Costs	Labour
1	2	3(N)	4	5(N)	6	7(N)
Uche, buying	160	2000	-	-	160	2500
Abdul, collecting	160	2500	-	-	160	2500
Ada, packaging	160	8500	160	8500	-	-
Emeka, maintainin g	160	8000	160	8000	-	-

Ugo, selling	160	2500	-	-	160	2500
Amaka, recording	160	2000	-	-	160	2000
Obi, managing	160	7800	160	7800	-	-
Kunle, promoting	160	6500	160	6500	-	-
Audu, distributing	160	2000	-	-	160	2000
John, processing	160	2500	-	-	160	2500
Ladi, securing	160	7500	160	7500	-	-
Oge sanitizing	160	6000	160	6000	-	-
TOTAL			960hrs	44,300	960hrs	14000

Note Direct labour cost = total pay for time in production=column 5

Total = N44300

Indirect labour cost = total pay for time not in production= column 7

Total = N14000

Direct labour cost per hour= total pay for time in production/total hours in production per month

$$=N 44300/960hours=N46.2$$

9.3 INDIRECT COSTS

Indirect costs form per month

Rent	N1000
Licenses and permits	N1250
Electricity and water	N1000
Interest on loan	N50
Insurance	N45.5
Stationary	N35.5
Promotion	N1500
Indirect labour(1)	N14000
Depreciation(2)	N1066.7
Miscellaneous	N6000
Total	N25947.7

9.4 DEPRECIATION

A refrigerator which will be used in refrigerating the processed snails before packaging and distribution will be purchased and used for a period of five years.

The cost price for the refrigerator is N64000

Calculation for depreciation:

Depreciation= total cost of buying the refrigerator

$$\frac{\text{Total cost of buying the refrigerator}}{\text{Number of years the refrigerator will be used}}$$

= N64000/5 years= N1280

Depreciation cost form

Refrigerator	
Bought	1 st year
Buying cost	N64000
Estimated to be used	5 years
Depreciation per year	
1 st year	N12800
2 nd year	N12800
3 rd year	N12800
4 th year	N12800
5 th year	N12800

Thus, depreciation per month = N12800/12 months=N1066.7

Detailed cost of the business = total cost of the business.

Thus, total cost = direct material costs+ direct labour costs+ indirect costs = N164740+N44300+25947.7

Total costs= N234, 987.7

Hence, **N234, 987.7** is required to start the business. Although the sum of N250,000 was required so that the balance of N9512.3 will serve as back up capital in the bank in case of any emergency.

9.5 Proposed Sources of Financing The Business

Delightful Snails has discussed with the Enugu small and medium Enterprise (SME) centre to offer, over a period of years, strong management and business support service. Also, the company will seek financial aid from the NYSC/CBN venture prize award and grants from any reputable nongovernmental organization (NGOs), including the National Directorate of Employment (NDE).

9.6 Financial Projections: 3-5 Years

The analysis of financial projections using financial indicators such as NPV, IRR, PI or BCR, PB, DPB, ARR (ROI) and sensitivity analysis, and cash flow plan are clearly calculated below:

CALCULATION FOR THE INDIRECT COSTS CHARGE

Indirect cost charge = total indirect cost/month divided by total direct material cost/month

From the labour cost form above,

Indirect cost charge = N14000/N164740×100= 8.5%

To cover up the total indirect costs for the business, 8.5% has to be added to the direct material costs of each material. This will be worked out in the production costing form below:

PRODUCTION COST FORM

	1	2	3
Product	Direct material cost/month (N)	Indirect cost/item (col. 1 ×8.5/100) N	Total cost/item (col. 1×col.2) N
Breeds of snails	10	$(10 \times 8.5 / 100) = 0.85$	8.5
Plastic aquarium	450	$(450 \times 8.5 / 100) = 38.25$	17212.5
Manual water sprinkler	680	$(680 \times 8.5 / 100) = 57.8$	39304
Sponge or rag	150	$(150 \times 8.5 / 100) = 12.75$	1912.5
Humus rich soil	450	$(450 \times 8.5 / 100) = 38.25$	17212.5
Lumps of alum	700	$(700 \times 8.5 / 100) = 59.5$	41650
salt	450	$(450 \times 8.5 / 100) = 38.25$	17212.5
Light recyclable plastic box	380	$(380 \times 8.5 / 100) = 32.3$	12274

CASH FLOW PROJECTIONS

The financial projection is for a period of five years.

Cash Flow Plan

S/N		1 st year	2 nd year	3 rd year	4 th year	5 th year
1	Cash at the start of the year	234987.7	150000	132000	100000	200000
2	Cash in from sales	564000	345000	263000	250000	541000
3	Any other cash in	-	-	-	-	-
4	TOTAL CASH IN	804487.7	495000	395000	350000	741000
5	Cashout for direct material cost	164740	102000	100000	98000	110000
6	Cashout for indirect labour cost	44300	44300	44300	44300	44300
7	Cashout for indirect cost	14000	14000	14000	14000	14000
8	Cashout for planned	6400	-	-	-	-

	investment eqn					
9	Any other cash out	6000	-	2000	-	-
10	TOTAL CASH OUT	298540	165800	165800	161800	1775300
11	CASH AT THE END OF THE YEAR	505947.7	329200	229200	188200	565700

Cash at the end of the year= total cash in –total cash out= N804487.7-N298540=N505947.7

Hence, estimates for each year are as follows:

YEAR	ESTIMATE SALES AND NET PROFIT (N)
1	505947.7
2	329200
3	229200
4	188200
5	556700

The cash flow projections show that the business cannot run out of cash at any period or year.

CALCULATIONS FOR NET PRESENT VALUE (NPV)

Now, assume that the snail processing and packaging business cost N250, 000 and is expected to generate year end cash inflows of N500000, N400000; N300000, N200000 and N100000 in years 1 through 5. And the opportunity cost of capital is assumed to be 10%.

YEAR	CASH FLOWS	PVF	PV
0	(250)	1.000	(250)
1	500	0.909	454.5
2	400	0.826	330.4
3	300	0.751	225.3
4	200	0.683	136.6
5	100	0.621	62.1
			N958.9

=N958900

The NPV of cash inflows (N 958900) is greater than that of the cash outflows (N 250000). Thus, it generates a positive NPV of N 958900. The business adds to the wealth of owner and therefore, it was accepted.

SENSITIVITY ANALYSIS

This is the method of recalculating NPV or IRR be changing each forecast. For example, let us assume that the cash inflows fall by 15%.

NPV SENSITIVITY AT 15% (N'000)

YEAR	CASH FLOWS	PVF	PV
0	(250)	1.000	(250)
1	425	0.909	386.325
2	340	0.826	280.84
3	255	0.751	191.505
4	170	0.683	116.11
5	85	0.621	52.785
NPV			N777565

Note: the NPV of cash inflows (N 77565) is greater than that of cash outflows (N 250000). Thus, it generates a positive NPV of N777565, implying that the business adds to the wealth of the owner(s).

IRR CALCULATION (N'000)

YEAR	CASH FLOW	DR=20 %	PV	DR=16 %	PV	DR=15 %	PV
(1)	(2)	(3)	(4) (2)×(3)	(5)	(6) (2)×(5)	(7)	(8) (2)×(7)
0	(250)	1.000	(250)	1.000	(250)	1.000	(250)
1	500	0.833	416.5	0.862	431	0.870	35
2	400	0.694	277.6	0.743	297.2	0.756	302.4
3	300	0.579	173.7	0.641	192.3	0.658	197.4
4	200	0.482	96.4	0.552	110.4	0.572	114.4
5	100	0.402	40.2	0.476	47.6	0.497	49.7
NPV			754.4		828.5		848.9

Now, PV required = N250, 000

PV at lower rate (15%) = N 1098900 PV at higher rate (16%) =N 1078400

Difference between PV required and PV at lower rate divided by

Difference between PV at lower rate and PV at higher rate

= N 250000 – 1098900 ÷ N1098900 - 1078500 = N848900 ÷ 204000 = N41.61

Therefore $r = 15.00\% + (16\% - 15\%) \cdot 848900 \div 204000$

$R = 15.00\% + 41.61\% = -26.1\%$

Thus, - 26% is the business IRR which equates the initial cash outlay of N 250000 with the constant annual cash inflows of N500000, N400000, N300000, N200000, and N100000 for 5 years.

PROFITABILITY INDEX, PI

This method of evaluating investment is also called Benefit-cost Ratio (BCR).

The acceptance rule is as follows;

Accept if PI is greater than 1

Reject if PI is less than 1

May accept if PI = 1

By using the 10% rate of discount, PI is calculated thus:

P1 OR BCR Calculation (N'000)

YEAR	CASH FLOWS	PVF	PV
1	300	0.909	454.5
2	400	0.826	330.4
3	300	0.751	225.3
4	200	0.683	136.6
5	100	0.621	62.1
NPV			N1208900

Now to calculate the PI or BCR=

PV of cash inflows/initial cash outlay=1208900/250000=N4.8

The PI is greater than 1, therefore the business has a hope of being accepted.

PAYBACK PERIOD (PB)

For a business that generates constant annual cash inflows, the payback period (PB) can be calculated thus:

PB=Initial investment/annual cash inflow

The acceptance rule is as follows:

□ If the PB is less than the maximum or standard PB set by management, it would be accepted and if not, it would be rejected.

□ As a method of ranking, it would accept the project with the shortest PB. Now, recall that for the third year, the PV of cash inflows at 16% rate of discount was calculated as N229200 and the initial business outlay was at N240489.7. Therefore,

PB= N240487.7/229200= 1.05 years

By the acceptance rule, the PB is less than the maximum or standard PB set by the management. Therefore, the business will hopefully be accepted. The business will pay all its debts in the first year.

DISCOUNTED PAYBACK PERIOD (DPB)

This is the number of period, taken in recovering the investment outlay on the present value basis. Note: The DPB fails to recognize the cash flows accruing after the PB.

Calculation for DPB at 10% PVF (N'000) is shown below:

YEAR	CASH FLOWS	PVF	PV
0	(250)	1.000	(250)
1	500	0.826	413
2	400	0.751	300.4
3	300	0.683	204.9
4	200	0.621	124.2
5	100	0.564	56.4
PB		1 year	
DPB			1.3 years
NPV			848900

ACCOUNTING RATE OF RETURN (ARR)

The ARR is also known as the **return on investment** (ROI). This uses accounting information, as revealed by the financial statement to measure the profitability of an investment.

The ARR (ROI) was found out by dividing the average after-tax profit by the average of the average investment.

Thus, ARR (ROI) = Average income/average investment

The acceptance criteria are that:

Accept the project whose ARR (ROI) is higher than the minimum rate established by management.

Reject projects with ARR (ROI) less than the minimum rate.

CALCULATION OF ARR (ROI)

PERIOD	1	2	3	4	5	AVERAGE
Nasir	10000	12000	14000	16000	20000	14400
Depreciation	8000	8000	8000	8000	8000	8000
Lesoy	2000	4000	6000	8000	12000	64000
Taxes (50%)	1000	2000	3000	4000	6000	32000
Mdal	1000	2000	3000	4000	6000	32000
Investment -B	4000	32000	24000	16000	8000	
Investment -E	32000	24000	16000	8000	0	
Investment-A	36000	28000	20000	12000	4000	20000

Therefore, ARR OR ROI = $3200 \times 100 / 20000 = 16\%$.

PART 10

10 Other Considerations and Conclusion

10.2 Economic and Social Justification

- Economically, snails are a source of great money-spinning venture. The business will definitely enhance the growth of the economy and bring in huge sum of money. Socially, snails are used for recreational activities and ornamentation. Snail serves as food to fish and our fish farmers have witnessed remarkable yield in fish production. Our pharmaceutical industries now have drugs that enhance the function of the circulatory system. Creams and Jewelleries are made from snails and its product. It is one of the easiest and least expensive type of business. All you need is a little space for your snail and then get your breeds of snail to start. Averagely a good breed of snail will lay about 400 eggs per clutch and

you have as much as say 50% hatchability. It is the main export commodity of our days.

- **Employment Generation:** Snail processing business is a form of self-employment and as such, will provide work for all category of people in the society including retirees, House wives, Young School Leaves, Inventors, Traders, Local Dwellers, applicants, Family Economic Advancement Programme (FEAP)/NGOs and Workers who need extra income to augment their Salary.

10.3 Commercial Viability

The commercial viability of the business is very clear. The project has been found to be commercially viable, having shown through projections an impressive sales, profits and cash flow positions.

10.4 Conclusion:

With all the analysis carried out for the purpose of commencing/implementing this business, there is proof that the business has great potentials to achieve in the economic world. Therefore, there is high hope that the business will be recommended for implementation.