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# A STUDY OF PROCESSING AND MARKETING OF GROUNDNUT OIL AND CAKE IN JIGAWA STATE: A CASE STUDY OF SHUWARIN MARKET

BY

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(ADBM/14/BAM/016A)

BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF BUSINESS ADMINSTRATION AND MANAGEMENT, COLLEGE OF BUSINESS AND MANAGEMENT STUDIES, JIGAWA STATE POLYTECHNIC, DUTSE.

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AUGUST, 2015

#### APPROVAL PAGE

This research project has been read and approved to meet the standard requirements of the award of Advanced Diploma in Business Administration in the College of Business and Management Studies, Jigawa State Polytechnic, Dutse.

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Signature and Date

#### DECLARATION

I, Talatu Abba Sambo, hereby declare that this, research work is a product of my research effort, under the supervision of Mal. Auwal Muhammad. All sources of information consulted have been duly acknowledged through references.

Talatu Abba Sambo ADM/14/BAM/016A Date

### DEDICATION

This research work is dedicated to my late mother: Hajiya Fatima Abdulazeez, for her love, caring and support throughout her life time. May her soul rest in peace, amin.

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#### ABSTRACT

This study examined the processing and marketing of groundnut oil and cake in Jigawa State; taking Shuwarin market as a case study. A total of fourty (40) respondents were randomly selected and questionnaires were administered to them for the purpose of data collection. Descriptive statistics in form of frequency distribution and percentages were used. Also, budgeting analysis in form of cost and return estimation was used. The result indicated that most of the groundnut processors in the study area were married, with a household size of 1 - 5 persons, and had their initial capital for the business from personal savings. A total of\_  $\frac{12}{2}$ ,816.73 was spent as processing cost per respondent and  $\frac{141}{156.50}$  was realized from the sales of processed products as income. Therefore, a profit level of  $\frac{18}{339.77}$  was realized per respondent. Also, the business is performing very well with a marketing efficiency ratio of 1.80. The major constraints faced by the processors include inadequate capital, lack of support from government and price variation. To improve the processions formation of cooperative societies to improve their business activity with generation of more income.

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## 1.0 CHAPTER ONE: INTRODUCTION

#### 1.1 Background of the Study

Groundnut is an important source of vegetable oil in most parts of Nigeria. Oil from groundnut form a stable part of the diet of many people, not only in Nigeria, but the world over. Most of the traditional methods of processing groundnut oil in Nigeria is carried out in the Northern states of the country. The source of the raw materials is mainly the local market with hardly any processor growing his own nuts (Umar, 1990).

Groundnut crushers could be used to produce groundnut cake popularly known as 'Kuli-Kuli'. It is also an important ingredient in numerous kinds of foods we eat, such as in making 'Suya' meat, ice cream, coatings, etc.

The popularity of groundnut oil arose from its' attributes, it does not smoke and does not absorb odours easily like other cooking oils (Ahmed, 2004).

However, groundnut might have lost its' position as the chief foreign exchange earner for Nigeria, it still remains one of the most important crops in the country.

This study is expected to examine the processing and marketing of groundnut oil and cake in Shuwarin area, being one of most prominent places where the commodities are being produced and marketed in Jigawa State.

#### **1.2 Problem Statement**

A lot of researches have been carried out in Nigeria to promote its' production and marketing. However, little attention has been paid to local processing of groundnut in to important products like oil and cake, which is assuming to be popular, especially in the Northern Nigeria. Most people do not engage in groundnut processing because it is tedious. Thus neglect this aspect which has a lot of economic impact on those in the rural area.

Also, less research work has been conducted on the local processing of groundnut which has been the major occupation of the rural dwellers, especially the women. Further, there is little information concerning the performance of the traditional marketing system in Nigeria.

It is also noticed that little or no study has been done about the processing and marketing of groundnut products in the study area despite the fact that it is one of the chief production area in the state.

#### 1.3 Justification for the Study

It became necessary that this study should be conducted in areas where groundnut products are being produced, processed and marketed. This study therefore, is justified as it aims at providing relevant information about these vital activities, which could be used by policy makers, processors, marketers and financiers to improve the flow of the commodities to the prospective consumers.

The economic benefits of the stakeholders are expected to be analysed so that they could be assisted to improve their activities leading to a better standard of living for the rural inhabitants.

## 1.4 Aims and Objectives of the Study

The main aim of the study is to examine the processing of groundnut in to oil and cake, and their marketing in Shuwarin market of Jigawa State.

The specific objectives of the study include the following:

- i. To identify the socio-economic characteristics of groundnut processors in the study
- ji. To determine the cost, returns and profitability of groundnut processing into oil and cake among the rural women in the study area.
- iii. To determine the marketing performance of groundnut products in the study area.
- iv. To examine the problems of groundnut processing in the study area.
- v. To make recommendations towards minimizing the identified problems.

#### 1.5 Hypothesis

The Hypotheses of the research were stated as follows

- a. Null Hypothesis (Ho): There is no profitability in the groundnut processing business.
- b. Alternative Hypothesis (H1): There is a profitability in the groundnut processing business.

These hypotheses will be tested in the course of the study.

### 1.6 Scope and Limitations of the Study

The groundnut processors in Shuwarin market were mostly women. They are involved in processing the groundnut in to oil and cake and then they bring them to the market for sale. The scope of the study will therefore cover Shuwarin market. The study is limited to Shuwarin market only as it is the most important market for the groundnut products. Also, due to time and financial limitations not many areas will be covered by the study. However, regardless of these limitations, the study is expected to give accurate information from the

representative of groundnut processors in the state.

#### 1.7 History of the Area of Study

The study area, Shuwarin Market is located in Kiyawa local government area (LGA) of Jigawa State. Historically, shuwarin market is popular and has been in existance over the years in terms of dealing with grains such as millet, guinea corn, beans, as well as groundnut and its' products such as groundnut oil and cake.

people from far and near used to patronize the market, usually during the market days i.e. every Monday. According to the head of the marketers, Shuwarin market was in existence since 1940 i.e. during the colonial era, and it was well known for handling food items.

#### 1.8 Definitions of Key Terms

- Market: This is a place for organizing and facilitating business activities and deciding on what to produce and distributes. It could also refer to any arrangement that brings buyers and sellers together.
- Marketing: Marketing involves the movement of product from the place where it is produced to the consumer or manufacturer. Through the marketing system products are matched with market through which transfer of ownership is effected.
- Processing: This involves changing the form of a product by engaging in some activities which adds value to the initial product. Groundnut seeds could be processed by grinding and pressing to produce oil and cake.
- Groundnut: This is a crop grown for its' seed. It is a very important source of oil. The oil is used in cooking and for industrial purposes. Also groundnut cake knowns as *Kuli-Kuli* is being produced and used as a food item as well as added to animal

feeds.

### 2.0 CHAPTER TWO: LITERATURE REVIEW

#### Origin of Groundnut 2.1

Groundnut is a native of Brazil which was introduced into Africa by the Portugese. It is now grown extensively in the tropical and subtropical areas of the world.

Groundnut, (Arachis hypogaea) is both a food and a cash crop and its foliage or haulm provides a valuable fodder for livestock. The crop does well in the densely populated areas of the savannah zone in Nigeria and in Senegal, Niger and Gambia, (Anochili, 1984).

#### **Processing of Groundnut** 2.2

The processing of groundnut can be as simple as cleaning, grading and packing fresh groundnut.

Traditional processing evolved from society's need to enhance the usefulness of groundnut products. The basic methods employed for this purposes are preservation and separation, (Smartt, 1995).

The main sub-products of groundnuts include groundnut oil and groundnut cake. Their processing is being discussed below:

#### Local Processing of Groundnut Oil 2.2.1

The processing involved in the local processing of groundnut oil are as follows:

#### a) Sorting

Groundnut bought are shelled and visually sorted out by hand into about 4 different

grades as follows:

i)

Those which are dark and withered are of no use and therefore, thrown away. Those which are small and withered, but are with a normal colour are put ii) aside to be used as sauce because it is felt that they contain no oil.

- The ones with the right colour and the right size but with no skin are put aside iii) to be washed first then roasted separately.
- The final grade is to be one with the right colour (that is cream, white, brown iv) or brick red skin colour) of the right size and with skin on it. This comprise about 95% of the total batch, (Smartt, 1995).

Traditional oiling technique b)

The traditional oiling technique is discussed under the processing of groundnut in to cake, as they are processed together.

#### 2.2.2 Processing of Groundnut into cake "kuli-kuli"

In the world vegetable oil production, groundnut oil rank second only to soya bean oil. Groundnut seeds are crushed for their oils.

In the local method of processing groundnut for oil, the nuts are first dried out in case it is not properly dried. The nuts are shelled, cleaned and roasted lightly. There are generally two seeds in each nut. The nuts are white but with a brown red skin. Next, the skin is removed by rubbing individual kernels against each other by hand or with the aid of a peeling slab, dirts are removed. The skinned kernels may be grounded using grinding stones or grinding machines to a smooth paste. The oil-rich paste is kneaded and pressed by hand to remove the oil. A small quantity of warm water is added following each pressing operation until as much of the oil-water mixture as

possible has been extracted. The oil-water mixture is fried over a low fire to remove most of the water, (Ihekoronye and Ngoddy, 1985).

The resulting cake is mixed with seasoning, shaped and then deep fat fried in the groundnut oil until golden brown, (Ihekoronye and Ngoddy, 1985).

#### 2.3 Uses of Groundnut

As a crop of global economic importance, groundnut crops are grown for their kernels, the oil and meal derived from them and the vegetative reside (haulms). The kernels are eaten raw by humans, lightly roasted or boiled, sometimes salted or made into paste, which in the U.S.A. and Europe is known as "peanut butter" and is valuable both for local use and export, (Smartt, 1985). Meal is made from the nuts and used in soup as meal substitute. In Senegal, the leaves of the plants are used for seasoning vegetables and as a frying medium. The choice however, varies from place to place.

The kernels are roasted, grounded, made into paste and boiled, oil rises to the surface and is skimmed off. The best oil is obtained by simple pressure and is called pressed oil, (Weiss, 1997).

The dry pericarp of the matured pods (known variously as hells or husks) may be used as fuel, as a soil conditioner, as a filler in feeds, or as an absorbent of moisture in flour (Harkness, 1975).

The haulms of groundnut are reported to be nutritionally valuable comparable with grass hay and are used as such in many countries to feed livestock (Gibbons and Pain, 1985).

At present, about 40% of the world's yield of the crop is processed into oil, which has a multitude of domestic and industrial application. It may be used for cooking, for making

margarines and dressing vegetables (or ghee), for softening in pastries and bread, for pharmaceutical and cosmetics products, as a lubricant and emulsion for insecticides and as a

The peanut butter is by far the most important product made from groundnuts in the United States of America. Consumption level reaching about 1.4kg per person.

peanut oil may be used for margarine, pharmaceutical and cosmetic industries, lubricant and emulsion for insecticides, and as fuel for diesel engines, (Cameroon, 1986).

In the U.S.A, about half of the groundnut harvest is used to make peanut butter, salted groundnuts and confectionary products (James, 1984).

#### 2.4 Uses of Groundnut Cake

The pressed groundnut cake containing 40 - 50% protein is used locally as food ingredient. It is usually grounded into flour and can be used for enhancing or enriching the nutritive value of vegetables and tuber flours that are low in protein such as cassava flour. Also, the groundnut cake is added into livestock feed, mainly poultry to enrich its nutritive value (Asiedu, 1992).

## 2.5 Demand and Supply for Groundnut Oil

The demand for edible oil has increased worldwide due to population growth, rising standard of living as well as consumer preference, arising partly from health considerations, (Wood and Beatite, 1981).

Groundnut becomes a crop of global economic significance, not only in the wide spread geographical areas of its production, but also in the even wider areas of its processing and <sup>consumption</sup> (Smartt, 1995). World Bank (1988) explained that the 1984 and 1985 crop year

been characterised by sharply large world oil seed supplies, and weak soy bean meal demand. Groundnut oil demand has remained strong especially in the USA, World Bank [1988]. Also world oil seed production (supply) in 1984 – 1985 increased to 21 metric tonnes, mainly because of large yield increase in many countries notably groundnuts in

## 2.6 Socioeconomic Characteristics of the Processors

The commonest socioeconomic characteristics of the processors include age, educational level, marital status, household size and source of capital income. According to Emokaro et al (2008) age of garri processors in Edo state ranged between 32 to 62 years and 90% of them had primary education. Sesame processors had 73% of them that are married in Taraba state (Wulnam, 2005). Shipi (2001) stressed that most of the groundnut processors in Bauchi state had 1 to 5 persons in their households. These assisted in the processing activities within their families. The same author also revealed that the sources of the respondents capital income varies from personal savings to loans from friends and relatives. None of them sourced credits from financial institutions such as banks.

#### 2.7 Cost and Returns of Product Processing

Processing costs are the actual expenses incurred in the processing of a commodity as it change form through value addition. Adegeye and Dittoh (2009) listed the processing costs as follows: cost of the acquired raw materials, processing equipment, transportation and handling charges, cost of packaging, marketing charges, taxes and levies.

The returns are the margin or profit level generated as a result of marketing the processed Moducts. According to Abbot (1993) the margin or return is the difference between the price Paid by the consumer and that received by the producer. The size of the marketing margin is

usually influenced by the degree of processing of the commodity in question, its bulkiness, its unit values and perishability (Adegeye and Dittoh, 2009).

#### 2.8 Marketing Performance of Products

Marketing efficiency is the term frequently used in marketing to measure its performance. An efficient marketing system, according to Dieter (1988) is one that gives the public as nearly as possible what it wants. Abbot and Makeham (1990) defined marketing efficiency as the movement of goods from producers to consumers at the lowest cost possible in consistence with provision of goods and services, which is the consumers' desire. Olukosi and Isitor (1990), on the other hand, defined marketing efficiency as the maximization of the ratio of output to input. They went on to explain that marketing inputs are the costs of providing services, whereas marketing outputs are the benefits or satisfaction created or the value added to the commodity to create time, place, and form utilities as it passes through the marketing system. They further noted that the higher the ratio of the consumers' satisfaction through the goods and services provided by the marketing costs of obtaining that consumers satisfaction, the greater the marketing performance or efficiency.

#### 2.9 Problems in Groundnut Processing

According to some authors like Lyman and Carlo, (1981), Vernon and Eugene, (1981), Huges and Philippe, (1988), the major constraints in processing agricultural products include the followings:

#### 2.9.1 Price Variation

Prices are generally beyond farmers control except possibly through some types of cooperative effort or government action. Both input and output prices are variable but output price variability is the most important. Because of time lag in agricultural production, the price received for a commodity may be greatly different from the price at the time the production decisions are made.

The prices of most agricultural commodities vary seasonally within a year as well as changing from year to year. Both production and marketing decisions are under uncertainty because of this price variation.

#### 2.9.2 Government Policy

Many government policies, programmes, rules and regulations are subject to change, creating another problem for farmers. Environmental protection, controls on the use of insecticides and herbicides and land use planning. Government policies regarding inflation, unemployment, money supply and foreign trade influence price levels and other factors.

#### 2.9.3 Financial Problem

This relates to the financing of business. The increased use of borrowed capital and unpredictable cash flows create the problem of not having enough cash to meet all obligations which could ultimately mean disaster. There is also the problem of losing the lease on the farm land. Also Quisumbing, (1995) stated that if women were given the same resources as men, development would see significant increase in agricultural productivity.

#### 2.9.4 Technical Problem

Weather, disease, insects and weeds are examples of factors which can be accurately predicted and can cause yield variation. Even if the same quality and quantity of inputs are used every year, these and other factors will cause yield variations which cannot be predicted at the time most input decisions must be made.

#### 2.9.5 Societal restriction

According to Abdullahi (1991) Islam frowns at women's ownership of land. He said that the religion encourage women to stay at home to look after the children. These circumstances make women to be lazy, redundant and less productive to the economy of a nation.

#### 3.5 Target Population and Sample Size

The target population is the processors and marketers of groundnut oil in the study area. However, a representative sample of fourty (40) respondents was dráwn mainly from the women processors who equally market the processed groundnut product i.e. oil and cake, in Shuwarin market. This is the sample size used for the study.

#### 3.6 Method of Data Collection

The data for this study will be collected using structured questionnaires to be administered to the respondents by the researcher. Personal interview will be conducted in order to get the necessary information of the study from the respondents.

#### 3.7 Methods of Data Presentation and Analysis

The tools of data presentation and analysis to be used in this study will be the descriptive statistical tools such as means, percentage and frequency distribution. Also, the Gross Margin analysis will be used to determine the level of profitability of the enterprises. The efficiency ratios will be used to determine the marketing performance of the enterprises.

#### CHAPTER FOUR

### 4.0 DATA PRESENTATION AND ANALYSIS

#### 4.1 INTORDUCTION:

The data collected from the respondents were analysed, presented and discussed. Also the Hypothesis was tested based on the research findings.

The tabulated form of data were presented showings the frequency distribution and percentages of the respondents. Also, the costs and return analysis was made and presented.

#### 4.2 PRESENTATION OF DATA AND ANALYSIS:

#### 4.2.1 Socio-economic Characteristics of the Respondents:

The study examined the Socio-economic background of the respondents. Groundnut processing is a predominant occupation. The personal characteristics of the respondents covered by the study include Age, Marital status, Household size, Occupation, Processing experience, Educational background and Sources of Capital for processing business.

# Table 1: Distribution of the respondents by age

Age (Years)	Frequency	· · · D
Below 30	01	··· Percentage 2.50
30 - 39	04	10.00
40 - 49	16	40.00
50 and Above	19	47.50
Total	40	100

Source: Field Survey 2015

Table 1 shows that most of the respondents (47.5%) falls in the age bracket of 50 years and above. This is followed by the respondents within 40 - 49 years of age which constituted 40% of the respondents, and 10% of them falls within the age of 30 - 39 years.

#### Distribution of the respondents based on marital status Table 2:

	Frequency	Percentage
Marital Status		5.00
<u></u>	02	5100
Single		
	29	72.50
Married	29	
viaincu		15.00
	06 /	15.00
Widow		
		7.50
	03	
Divorced		

	A CONTRACTOR OF THE REAL PROPERTY OF	
Total	40	100
Source: Field Sur	vey 2015	100

Table 2 shows the distribution of the respondents based on marital status. Thus, the result indicated that 72.50% of the respondents were Married, 15% were Widowed, 7.5% were Divorced while only 5% were Single. Thus shows that majority of the groundnut processors were married in the study area.

### Table 3: Distribution of the respondents on Household size

Household size	Frequency	Percentage
5	17	42.50
5 - 10	16	40.00
11 and Above	07	17.50
Statistics (C. P. )		100

Source: Field Survey 2015

Table 3 shows that majority of the respondents have 1 to 5 persons in their household. This constituted 42.5%. This is followed by the respondents with persons between 6 to 10 in their household. This constituted 40% of the respondents. Only 17.5% of them have 11 and above persons in their household.

# Table 4: Distribution of the respondents based on their occupations.

Occupation	Frequency	Percentage
1. Full time Groundnut Processing		
B	31	77.50
2. Other activities beside processing	09	22.50
Total	40	100

Source: Field Survey 2015

Result presented in Table 4 indicated that most of the respondents were engaged in full time groundnut processing. This constituted 77.5% of the total respondents. The remaining 22.5% of the respondents were engaged in other activities beside processing which include grain processing, weaving, dyeing, food vending, etc.

#### 

Frequency	Percentage
07	17.50
09	22.50
11	27.50
13	32.50
	100
	07 09 11 13

Source: Field Survey 2015

Table 5 revealed that most of the respondents are highly experienced in groundnut processing with 30 years and above. This constituted 32.5% of the respondents. Also 27.5% of them had 20 - 29 years of experience in groundnut processing venture. As more than half of the respondents are well experienced in the processing activity, this made their work more efficient in the study area.

Educational level	Frequency	Percentage	
Primary education	09	22.50	
Secondary education	02	5.00	
Tertiary education	01	2.50	
Qur'anic education	27	67.50	
Adult education			
Never been to School	1	2.50	
Total	40	100	

#### Table 6: Distribution of the respondents based of educational level

Source: Field Survey 2015

Table 6 shows the levels of the respondent's education. The level of education of the respondents usually influences their decision making process. Majority of the respondents representing 67.5% had Qur'anic education followed by 22.5% who attended Primary schools and 5% attended Secondary schools. Those who had Tertiary education constituted 2.5% of the respondents and similar percentage (2.5%) of the respondents had never been to any school.

#### Table 7:

Distribution of the respondents based on sources of Capital for processing.

36	90
	90
10	25
04	10

\*Multiple response

Table 7 shows the distribution of the respondents based on their sources of capital for groundnut processing business. Thus, 90% of the groundnut processors in the study area sourced their capital for the business mainly through Personal savings. About 25% of them obtained financial assistance or loans from their families and friends, while 10% of the respondents obtain their capital fund from Cooperative societies in their localities.

Table 8: Distribution of the respondents based on Points of Sale (POS) for

*Frequency	Percentage
40	100
32	80
02	05
	40 32

The result in Table 8, indicated that the major Points of Sales for the groundnut processed products (oil and cake) is the rural market i.e. Shuwarin market. This was attested by all the respondents (100%).

In addition to that, 80% of them also take the products for sale to the Dutse urban market, while only 5% of them sales their processed products through middlemen.

Table 9: Distribution of the respondents based on benefits obtained from groundnut processing

24	60.00
27	67.50
13	32.50
32	80
	27 13

\*Multiple responses

Table 9 shows the benefits obtained by the respondents due to groundnut processing in the study area. It revealed that the proceeds obtained from groundnut processing business is used in buying new clothes and jewelleries as indicated by 80% of the respondents. Also, 67.5% of the respondents opined that the income form groundnut processing business is used to improve the living conditions of their families. 60% of the respondents used the proceeds to pay the school fees of their children, while 32.5% of them used to assist their spouses and close relatives to solve their financial problems in the study area.

# 4.1.2 Average costs and Returns of processed Groundnut products

Naira per res         Variable cost items         i.       Value of raw material (groundnut) 50kg         ii.       Salt         iii.       Water         vi.       Fire Wood         v.       Labour         Total variable cost (TVC)         Fixed Cost items         i.       Depreciation on Frying pan         ii.       Depreciation on Mortar and Pestle         iv.       Depreciation on Bowls and Plates         iv.       Depreciation on Frunels, Spoons, etc         Total fixed cost (TFC)	20,362.50 115.50 30.38 398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	Percentag 89.24 0.51 0.13 1.74 0.90 92.53 0.75 0.63 2.44 3.00
<ul> <li>i. Value of raw material (groundnut) 50kg</li> <li>ii. Salt</li> <li>iii. Water</li> <li>vi. Fire Wood</li> <li>v. Labour Total variable cost (TVC)</li> <li>Fixed Cost items</li> <li>i. Depreciation on Frying pan</li> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bouls and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	115.50 30.38 398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	0.51 0.13 1.74 0.90 92.53 0.75 0.63 2.44 3.00
<ul> <li>iii. Water</li> <li>vi. Fire Wood</li> <li>v. Labour Total variable cost (TVC)</li> <li>Fixed Cost items</li> <li>i. Depreciation on Frying pan</li> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	115.50 30.38 398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	0.51 0.13 1.74 0.90 92.53 0.75 0.63 2.44 3.00
<ul> <li>iii. Water</li> <li>vi. Fire Wood</li> <li>v. Labour Total variable cost (TVC)</li> <li>Fixed Cost items</li> <li>i. Depreciation on Frying pan</li> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	115.50 30.38 398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	0.51 0.13 1.74 0.90 92.53 0.75 0.63 2.44 3.00
<ul> <li>vi. Fire Wood</li> <li>v. Labour Total variable cost (TVC)</li> <li>Fixed Cost items</li> <li>i. Depreciation on Frying pan</li> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	30.38 398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	0.13 1.74 0.90 92.53 0.75 0.63 2.44 3.00
<ul> <li>v. Labour Total variable cost (TVC)</li> <li>Fixed Cost items</li> <li>i. Depreciation on Frying pan</li> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	398.00 206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	1.74 0.90 92.53 0.75 0.63 2.44 3.00
Total variable cost (TVC)         Fixed Cost items         i.       Depreciation on Frying pan         ii.       Depreciation on Grinding stone         iii.       Depreciation on Mortar and Pestle         iv.       Depreciation on Bowls and Plates         iv       Depreciation on Bottles and Gallons         v.       Depreciation on Funnels, Spoons, etc	206.25 21,112.63 172.00 143.00 556.25 683.60 138.00	0.90 92.53 0.75 0.63 2.44 3.00
Total variable cost (TVC)         Fixed Cost items         i.       Depreciation on Frying pan         ii.       Depreciation on Grinding stone         iii.       Depreciation on Mortar and Pestle         iv.       Depreciation on Bowls and Plates         iv       Depreciation on Bottles and Gallons         v.       Depreciation on Funnels, Spoons, etc	21,112.63 172.00 143.00 556.25 683.60 138.00	92.53 0.75 0.63 2.44 3.00
<ul> <li>Fixed Cost items</li> <li>Depreciation on Frying pan</li> <li>Depreciation on Grinding stone</li> <li>Depreciation on Mortar and Pestle</li> <li>Depreciation on Bowls and Plates</li> <li>Depreciation on Bottles and Gallons</li> <li>Depreciation on Funnels, Spoons, etc</li> </ul>	172.00 143.00 556.25 683.60 138.00	0.75 0.63 2.44 3.00
<ul> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	143.00 556.25 683.60 138.00	0.63 2.44 3.00
<ul> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	143.00 556.25 683.60 138.00	0.63 2.44 3.00
<ul> <li>ii. Depreciation on Grinding stone</li> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	143.00 556.25 683.60 138.00	0.63 2.44 3.00
<ul> <li>iii. Depreciation on Mortar and Pestle</li> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	556.25 683.60 138.00	2.44 3.00
<ul> <li>iv. Depreciation on Bowls and Plates</li> <li>iv Depreciation on Bottles and Gallons</li> <li>v. Depreciation on Funnels, Spoons, etc</li> </ul>	683.60 138.00	
iv Depreciation on Bottles and Gallons v. Depreciation on Funnels, Spoons, etc	138.00	0.00
v. Depreciation on Funnels, Spoons, etc	11.05	0.60
	11.25	0.05
	1,704.10	7.47
Total Cost (TVC + TFC)	22,816.73	100.00
Returns (Income)		
	10,707.75	26.00
a) Returns on Groundnut oil	30,448.75	74.00
<ul> <li>b) Returns on Groundnut cake Total Returns (Total Income)</li> </ul>	41,156.50	100.00
Net Returns (Net Income) (TR - TC)	18,339.77	
Marketing Margin (TR -TVC)	20,043.87	
Returns per naira invested (NR /TFC)	10.76	
Returns per naira invested (* Marketing Efficiency (ME) Ratio	1.80	

Table 10 presents the average cost and returns of processed groundnut products by the respondents in the study area. It shows that the total variable cost of N21,112.63 was spent in purchasing basic raw materials for processing groundnut. This constituted 92.53% of the total cost of the processing activity. Also, the total fixed cost of N1,704.10 was calculated based on depreciated values of equipment used in processing. This constituted 7.47% of the total cost of groundnut processing activity. Therefore, the total cost of groundnut processing husiness was found to be N22,816.73.

The total returns (total income) of N41,156.50 was obtained from the proceeds of groundnut oil and groundnut cake offered for sale in the market by the respondents. Thus, a net return of N18,339.77 was obtained. This indicates that groundnut processing business in the study area is highly profitable.

The marketing margin was estimated to be N20,043.87 and returns per naira invested in the business was found to be 10.76, confirming the above statement that groundnut processing is profitable in the study area.

Also, in terms of market performance, the study shows that processed groundnut products are efficiently marketed in the study area with an ME ratio of 1.80

## 4.1.3 Constraints to Groundnut processing

# Table 11: Distribution of the respondents based on Constraints

	* Frequency	Percentage
Constraints		
	35	87.50
i. Inadequate capital		15.00
ii. Lack of modern processing facilities	06	15.00
iii. Lack of access to market		

v. Lack of support from government	08	20.00
	22	55.00
	24	60.00

Table 11 shows that majority of the groundnut processing in the study area or 87.5% complained about inadequate capital to improve their business activities. This is followed by lack of support from government in form of soft loans/credit to improve their activities. Those that faced the problem of price variation constituted 55% of the respondents, followed by those who faced the problems of lack of access to market. Also, 15% of the respondents complained about the problem of lack of modern groundnut processing facilities to improve their activities in the study area.

#### 4.2 HYPOTHESIS TESTING

According to the Null Hypothesis (Ho) there is no profitability in the groundnut processing business, while the Alternative Hypothesis (A1) stated that there is profitability in groundnut processing business. Based on the findings of the study these hypothesis were tested especially on the results of the average costs and returns of groundnut processing as presented in Table 10. From the results, it was indicated that the total cost of groundnut processing business was N22,816.73, while the total income (returns) was found to be N41,156.50. This gives a profit level of N18,339.77 for processing a 50kg bag of groundnut into oil and cake per respondents. Thus, the groundnut processing business is very profitable in the study area. Therefore, we reject the Null Hypothesis and accept the Alternative Hypothesis.

#### FINDINGS 4.3

The key findings of this study indicated that the groundnut processing business in Shuwarin market is very profitable, as indicated by the level of returns per naira invested in the business to be 10.76. This means that for every naira invested in business of groundnut processing, it generates N9.76k

Also, most of the businesses activities are being conducted in the rural market at Shuwarin were many people patronizes their products. It was also found that there is less interference of the middlemen in the business.

In terms of marketing performance of the processed groundnut products, the study indicated that the business is highly efficient as it has a marketing efficiency ratio of 1.80. This means that marketing system for the processed groundnut products is efficient and is performing very well in the area.

Furthermore, the study also revealed that groundnut processing business faces many problems especially as regards to inadequate income and lack of government support to improve the capital base for expansion and business improvement.

Based on the fact that most of the respondents were well experienced in the groundnut processing business, as revealed by the study, any financial assistance will contribute significantly towards boosting their business venture with the anticipation of generating more income to improve their welfare in the study area.

## CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS 5.0

#### 5.1

The study was conducted to examine the profitability of groundnut products processing and marketing as a form of business enterprises, aimed at economically empowering the rural populace especially women in Shuwarin market of Kiyawa Local Government area of Jigawa State.

Data were collected using questionnaires from 40 randomly selected women processors in the study area and analysed by descriptive statistics (frequency distribution and percentage) as well as the budgeting analysis (cost and returns analysis).

The results revealed that most of the groundnut processors (47.5%) are within the age of 50 years and above. Also most of them were married (72.50%) with majority (42.5%) having household size of 1 - 5 persons, and 32.5% of them had 30 years and above in terms of processing experience. Most of the respondents (67.5%) had Qur'anic education.

Initial capital is very critical in any form of a business enterprises. The study revealed that most of the groundnut processors (90%) had their initial capital for the business from personal savings. None had the opportunity of approaching any

commercial bank for any form of credit. In terms of cost and returns of the groundnut processing business, an average cost of N22,816.73 was incurred per processor and generated a total income (returns) of N41,156.50. Thus giving a profit level of N18,339.77 per respondent. Also the business is performing very well as it had a marketing efficiency ratio of

1.80.

The major constraints faced by the groundnut processors include inadequate income, lack of support from government and price variation.

#### Conclusion 5.2

The study indicated that groundnut processing is a very important business engaged mostly by rural women in the study area. The business venture was found to be very profitable and the respondents benefits tremendously from it.

However, based on their commitment to the business, it is therefore important for them to be economically empowered so that they will contribute significantly to, not only maintain their homes efficiently, but also assist to develop the rural economy in general.

#### 5.3 Recommendations

Based on the research findings, the following recommendations were made:-

- 1. The groundnut processing business requires modern processing facilities to improve the level of output and subsequently income of the processors. Thus, there is a need to provide such facilities especially through the government or non-governmental organisation to assist the processors to improve their business productivity.
- 2. The development and commercial banks in the study area should grant soft loans to the Women to meet their financial obligations for the business to develop

3. It is also recommended that the processors should form cooperative unions or societies, so that they can get some form of financial and technical support to procure new improved oil extraction machines in order to make their business

effective and efficient.

4. A uniform pricing system of the processed produce and unit quantity of measurement should be introduced and enforced by all marketing agencies in the State to minimize the problems of price variation.

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# APPENDIX 1: RESEARCH QUESTIONNAIRE

### JIGAWA STATE POLYTECHNIC DUTSE

#### COLLEGE OF BUSINESS AND MANAGEMENT STUDIES

#### ADVANCE DIPLOMA IN BUSINESS ADMINISTRATION

### A STUDY OF PROCESSING AND MARKETING OF GROUNDNUT OIL AND CAKE IN JIGAWA STATE: A CASE STUDY OF SHUWARIN MARKET

### Dear Respondent

I am a research student conducting a study of processing and marketing og groundnut oil and cake in Shuwarin market. Kindly assist by ticking the following question appropriately.

Your response will be treated in confidence for research purpose only.

Talatu Abba Sambo

Research Student

A	Socio-Economic Characteristics								
1.	Age of the respondent (years)								
2.	Marital Status: Iarried ( ) b) Single ( ) c) Widowed ( ) d) Divorced ( )								
a) N	farried ( ) 0) Singer ( )								
3.	Number of Children:								
4.	the work a full time processor?								
	a) Yes ( )								
	b) No ( ) If No, what other works do you undertake?								
E	If No, what other works do you undertaker and How long have you been engaged in groundnut processing? (years)								
5.	the store been engaged in groundnut processing. O								
6.	How long have you been								
	33								

1	Educ	ational background						
7.	a)	Primary	(	)				
	b)	Secondary	(	)				
	c)	Tertiary	(	)				
	d)	Quar'anic	(	)				
	e)	Adult education	(	)				
	f)	Never been to so						
8.	W	nat are your reasons	for en	gaging	in proc	essing of ground	nut?	
9.	W	That is your source o	f capit	al for pi	ocessir	ıg?		
	a				(	)		
		b) Loan from Far		iends	(	)		
		c) Loan from Ba			(	)		
•		A) Loan from co	operati	ves	(	)		
	B Processing Information (Costs and Returns)							

.....

Which aspect of groundnut processing are you engaged in? В.

1.

2

		1	)		
a)	Groundnut oil	(	,		
a)	Groundnut cake	(	)		
b)	Groundhut callo		``		
	Both a and b	(	)		
c)					
d)	Others specify				
4)			de mille	aina	

d) indicate the materials used for processing.

•	Plea	Se maron	Quantity Amor	int purchase/unit
	i.	Frying pan		
	ii.	Grinding stone	34	

iii.	Grinding engine	 
iv.	Mortar & Pestle	 
v.	Bowl & Plate	 
vi.	Bottle & Gallon	 ••
vii.	Others (please specify)	 
DI		

3. Please give the following information on processing.

				Quantity	Amount
i.	Quantity of	Groun	dnut per mudu		
ii.	Salt				
iii.	Water				
iv.	Firewood				
v.	Labour (no.	of pers	sons involved ir	processing)	
4. How man	y bottles or g	gallons	of groundnut of	l do you obtain ir	processing?
a) Bo	ttle			b) Gallon	
5. How muc	h do you seli	l a bottl	le or gallon?		
a) Bo	ttle	N		b) Gallon	N
6. How man	y mudus of ध	groundr	nut cake 'Kuli-k	uli' do you produ	ice per week?
7. How muc	h do you sell	a mud	u?		
8. Where do	you normall	y sell y	our groundnut	oil and cake?	
i. At Shuwar	in market	(	)		
ii. Taken to t	own market	(	)		
iii. Through 1	niddlemen	(	)		

iv. Others (please specify) ...

9. What do you benefit from the proceeds of your business?

a) Pay the school fees of my children		
b) Improved	(	.)
b) Improve the living standard of my hous	e(	ì
c) Assist my husband and close relatives		,
d) Due	(	)
d) Buy new clothes and jewelleries	(	)
e) Others (please specify)		,

## C. Constraints to Processing

1. Do you encounter any problem as a result of groundnut processing?

Yes ()				at prot
	No	(	)	
2. If yes, please indicate the problem be	low			
a) Inadequate Income				
		(	)	
b) Lack of modern processing facilities		(	)	
c) Lack of access to market			,	
		(	)	
d) Price variation		(	)	
e) Societal Restriction			,	
		(	)	
f) Lack of support from government	1	(	)	
g) Others (please specify)			1	
//				

Thank you.