PROCESSING AND UTILIZATION OF BAMBARA NUT FOUR FOR PRODUCTION OF CAKE

BY

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BEING A RESEARCH PROJECT SUBMITTED TO DEPARTMENT OF HOSPITALITY MANAGEMENT AND TECHNOLOGY, INSTITUTE OF APPLIED SCIENCES (I.A.S) , KWARA STATE POLYTECHNIC,ILORIN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN HOSPITALITY MANAGEMENT AND TECHNOLOGY

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CERTIFICATION

This is to certify that this project was carried out by **ADEDIMEJI ALIMOT ADERONKE (ND/23/HMT/PT/000**5), it has been record and approved as meeting part of the requirements for the award of National Diploma (ND) in the of Hospitality Management Technology, Department Institute of Applied Sciences, Kwara State Polytechnic ,Ilorin.

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DEDICATION

This project is dedicated to the Almighty Allah who gave me the strength, ability, power and wisdom to complete this course successfully Also I appreciate my caring, affectionate parents who eagerly show their patience and maximum support both financially and morally throughout the period of this project work, and my studies. I pray you all enjoy the fruits of your labour, Amen

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I wish to express my deepest and most heartfelt gratitude to my parents, for their unwavering support, both morally and financially, from the beginning of my education to the point in time .Your valuable support has been a corner stone of my success, and I deeply appreciate it. May Almighty God continue to bless you in all your endeavor and grant you the health and strength to reap the fruit of your labor, amen I also extend my sincere thanks to my supervisor for her timely advice and support, ensuring this write up meets the desire standard.

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TABLEOFCONTENT

CHAPTER ONE

1.0 INTRODUCTION

Bambara nut (vigna subterranean) is an underutilized legume crop grown in many part of Africa. It is rich in protein, carbohydrate, and essential nutrient, making it a valuable food source, especially in rural communities. Despite it nutritional benefit, Bambara nut remains underused in commercial food processing compared to more common legumes like soybeans or groundnuts.

One of the innovative ways to increase its usage is by processing Bambara nut into flour and incorporating into popular food product such as cakes, being a widely accepted snack food provides an excellent platform for exploring the potential of Bambara nut flour as a health affordable alternative or supplement to wheat flour.

This study focuses on the processing of Bambara nut into flour and its utilization In cake production, aiming to promote local ingredient, improve food diversity, and reduce dependence on imported wheat flour.

1.1 Background to the Study

Bambara nut is a drought-resistant legume with high nutritional values, especially in protein (about 18-20%) and carbohydrates. It is often cultivated in marginal soil and is well adapted to the climate of many Africa countries however, its use to traditionally limited to boiling or roasting for direct consumption.

With the rising cost of wheat flour and the need for more locally sourced, nutritious ingredients, there is increasing interest in using Bambara nut flour in baked products. Processing Bambara nut into flour allows for broader application in food industries, particularly in baking.

Utilizing Bambara nut in cake production not only enhances the nutritional quality of cakes but also encourages local farming, reduces importation of wheat, and creates new economic opportunities. This study seeks to examine the steps involved in processing Bambara nut into flour, evaluate its baking properties, and determine the acceptability of cakes made with this flour.

1.2 Statements of the Problem

Although Bambara nut possesses high nutritional value and grows well under harsh conditions, it is not commonly used in mainstream food production. The lack of awareness, in adequate processing knowledge, and limited commercial application has hindered its utilization.

Additionally, the dominance of wheat flour in baking excludes individuals with gluten sensitivity and limits the development of indigenous flour alternatives. This study addresses these gaps by exploring the processing of Bambara nut into flour and assessing its suitability in cake production.

1.3 Objective of the study

1.3.1 General objective of processing and utilization of Bambara into flour for production of cake.

To evaluate the processing of Bambara nut into flour and it application in the production of cake.

1.3.2 Specific Objective

i. To process Bambara nut into instant Bambara flour for production of snacks.

ii. To indentify the nutritional content of Bambara nut and their health benefit.

iii. To access the acceptability level of product from Bambara nut.

1.3 Research Questions

I. How can Bambara nut be processed into instant flour suitable for snack production?

II. What are the nutritional components of Bambara nut, and what are their health benefits?

III. What is the level of consumer acceptability of snacks made from Bambara nut flour?

1.4 Significance of the Study

This study contributes to the development of alternative, nutrient-rich flours for cake production. It promotes the value addition of underutilized crops like Bambara nut support efforts toward food diversification and security. The scale food processors and bakers to adopt locally available food ingredients thereby supporting local agriculture and reducing enhance on imported wheat flour.

1.5 Scope of the Study

The study is focused on the process of Bambara nut into flour and its use in baking cake. It includes flour preparation, cake formulation and sensory

evaluation. The research is limited to laboratory-scale production and organoleptic assessment, and does not extend to large scale commercialization or cost analysis.

1.6 Limitation

- Limited access to industrial-grade processing and baking equipment.
- Small sample size for sensory evaluation, which may affect generalization.
- Financial and time constraints limiting extended product testing and shelf-life analysis

1.7 Definitions of Terms

- Bambara nut: A drought resistant legume native to Africa valued for it high protein and carbohydrates content Sensory evaluation a scientific method used to measure analyse and interpreted human reactions to food base on the sense

CHAPTER TWO

Literature Review

2.0. Introduction

The increasing demand for alternative and underutilized legumes in food processing has brought renewed interest in Bambara but (Virginia subterahea) a resilient nutrients rich legume commonly grown in sub Harlan Africa despite its high protein content and ability to thrive in harsh conditions, Bambara but remain largely under exploited in mainstream food industries largely . One promising avenue for its utilization is the production of four , which can be incorporated into various baked products such as cakes, as a partial or full substitute for conventional wheat flour.

2.1. ORIGIN AND BOTANICAL DESCRIPTION OF BAMBARA NUT.

Bambara Nut(vigna subterranean) is an indigenous AFRICA legume widely grown in west, eternal and Southern Africa. It is a drought resistance crop that thrive in poor soils and is often cultivated by small holder farmers. The plant belongs to the family fabeceae and is characterized by self pollinating and matures within 90-180 days

2.2. NUTRITIONAL COMPOSITION OF BAMBARA NUT

Barbara but us know for its balanced nutritional profile. It contains approximately 18-24% protein 59-65% carbohydrates and 5-7% fat. It's also rich in essential amino acids, dietary fiber and iron . It's high lysine content complements cereals, making it's suitable for composite flour production

2.3. TRADITIONAL AND INDUTRIAL USES

Traditional Bambara nut is boiled roasted or grind into flour for local dishes. In recent times it's flour has been explored into the development of weaning foods, snacks and baked products. It's veracity and health benefits food processing.

2.4 PROCESSING OF BAMBARA NUT INTO FLOUR

Processing involved cleaning, soaking doublings, drying and milling. Soaking help reduce anti. Nutritional factor such as tarnish and physiatrist. Dehulling improves texture and color, while drying and milling ensure she if stability proper processing enhance the flour functional properties makings it suitable for baking

2.5 UTILIZATION OF BAMBARA NUT FLOUR IN CAKE PRODUCTION

Several studies have explored substituting wheat flour with Bambara nut flour into cakes partial substitution (10-40%) has been shown to improve the protein content and overall nutritional quality without significant affecting taste or texture . However higher substitution levels may affect the cakes volume and softness

2.6. FUNCTIONAL AND SENSORY PROPERTIES

Bambara nut flour exhibits good water absorption emulsification and foaming capacity important for cake better formulation . Sensory evaluation often reveal that cakes with up to 30% substitutions are acceptable intake texture and appearance

2.7 HEALTH AND ECONOMIC BENEFITS

Utilization Bambara flour promote food security adds value to local crops and reduce dependence of imported wheat. It's nutritional profile support a Better health outcomes especially in protein deficiency communities

2.2. THEORETICAL REVIEW

The theoretical foundation for this study is anchored on the key concept related to food science , nutritional and the utilization of local agriculture resources.

These theories support the transformation of underutilized crops like Bambara but into value added food products to enhance food security nutrition and economic development

2.2.1 THEORY OF FOOD PRODUCT DEVELOPMENT

This theory emphasizes the development of new improved food product by utilizing available resources and technologies it support the ideal that Bambara but can used it cake production to meet nutritional demand and consumer preference particularly in regions with limited access to wheat flour

2.2.2 FUNCTIONAL THEORY OF FOOD

Functional food theory focus on using food ingredients that offer health benefit beyond basic nutrition, Bambara nut flour contain protein dietary fiber. And essential micronutrient. Making it suitable for creating functional baked goods like cake that promote better health outcome.

2.3 SUMMARY OF LITERATURE REVIEW

The review of existing literature reveal that Bambara but is a high nutritious underutilized legume with significant potential in food processing. Several studies have confirmed its rich protein carbohydrates, and fiber content. As well as it's suitability for conversion into flour . Research also support its incorporation into bakery products like cakes showing improvement in nutritional value and acceptable sensory characteristics particularly at substitution levels between 10-30% The properties of Bambara nut flour such as water absorption and emulsion which are contribute to food security and promotes the value addition indigenous crops.

CHAPTER THREE

3.0 Introduction

This chapter outlines the methods and procedures adopted in conducting the research on the processing of Bambara nut into flour for cake production. It include the research design, study are target population. Sampling techniques sampling size, instrument for data collection method soft data collection and data analysis techniques

3.1 Research Design

This is comprehensive plan that outlines how research studies will be conducted. It's essentially the blue print for the research guide on how to collect analyses and interpret data to address once research question. This plan comprise overall strategy and analytical ensuring coherent and logical integration of different study components

This study adapts to a descriptive experimental research design. The experimental aspect involved processing but into flour and using it in cake production, the description part involved it in cake production. The descriptive part involves collecting feedback from selected respondent to assess the quality and acceptability of the cakes

3.2 Study Area

The study area refers to the specific geographical location or setting where research study is conducted. It's provide background information about setting including its social cultural and institutional or physical characteristics that are relevant to the study.

The study was carried out in the department of hospitality management where the researchers is focused was chosen because of its relevant to food science and nutrition a s consumer studies the study area provided a suitable environment for evaluating utilization of Bambara but in production of cake as both trained students and lecturers in food related discipline and untrained customers students and staff from the department

3.3 Target Population

Target population is the complete group of individuals or entities that study aims to generalize it findings or to about . It represents the entity set of units (people, objective etc) that share specific characteristics relevant to the research questions

The target population for the study consist of students and staff of the Kwara state polytechnic Ilorin. This was chosen because they represented diverse demographic interns of age, education background and exposure to cake products including both explore acceptability across different pattern and preferences.

3.4 Sampling Techniques

Sampling techniques refers to the method used to selected a subset of individuals items of data point for a larger population to represents the whole . It is used in research and project studies to collect data efficiently, reduce cost and time and improve nature that conclusion drawn are statistically valid and generalize.

The study employed to select individual's knowledge in banking or food texting, this method was chosen to ensure that relevant and informed responses were obtained

Sample Size

Sampling size is the total number of particles observation or units from a large population of inclusion in a study. It represent the portion of the population that's is actually studied to draw conclusion and to make presentations about the entire population

A total number of 50 respondents are consider to participate in the study . This sample size is considered sufficient to obtain meaningful sights of a small scale evaluation of customer preference. The size strike a balance between manageability and representation given the scope of the research and resources limitations

3.6. Research Instruments

This entails instrument used in gathering relevant information needed to achieve the objective of the study as contained in chapter one

3.6.1 Measurement of Variable

Key variable measure in the study include sensory property taste aroma texture appearance customers acceptability and nutritional awareness sensory property will be rated on a scale like demographic and awareness variable will be categorized and measured ended for analysis.

3.7 Data Collections

Data collection is the systematic process of gathering information from relevant sources in order to answer research question, text hypothesis and evaluate outcome.

It involved the uses of tools such as questionnaires interviews, observation and laboratory equipment to obtains accurate and suitable analysis data collection will be carried out

1 survey stage: administration of questionnaire and sensory evaluation sheet to select respondent during testing session

3.8 Data Analysis

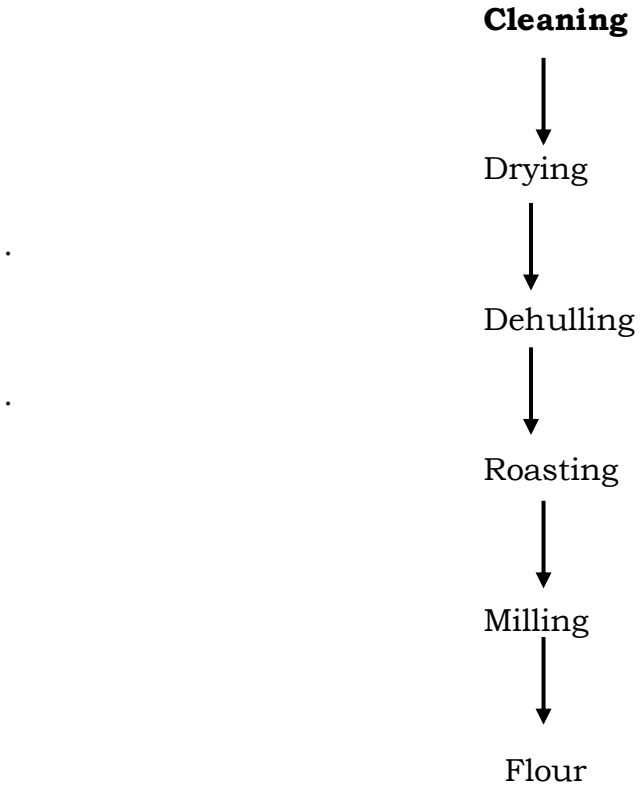
Data analysis is the process of systematically examine organizing , transferring and interpreting collected data to extract useful information, identifying patterns, valid conclusion . It's invoice the uses of both descriptive statistics such as mean, percentage and frequency.

Data analysis from production trails, nutritional analysis and sensory evaluation of Bambara but into flour to produced cake , will contract and consumers acceptability

METHODOLOGY

MATERIAL AND METHOD

Flow chart for the processing of Bambara but into Bambara flour



Cake production

Method of preparing of Bambara but into flour for cake production begin with harvesting or sourcing raw Bambara nut, a protein rich legume commonly used in African cooking

Cleaning

The nuts are to clean to remove dirt, stones and foreign material. This ensure the final flour is hygienic and safe for consumption

Drying

The cleaned nuts are sun dried on an oven to reduce their moisture content. This makes them easier to process and help prevent spoiler during storages

Dehulling

Once the nut are Dehulling to remove the outer seed coat. This improve the texture and color of the final flour

Roasting

The Dehulling nuts are lightly roasted to improve flavors reduce the being taste and enhance shelf life roasting also makes milling easier

Milling

The roaster nuts are ground into fine powder using a milking machine or dry grinder this powder is Bambara but flour

Flour

The resulting flour is diver to ensure uniform textured. It can use immediacy or packaged for storage

Equipment

Mixing bow

Sieve

Measuring tools

Cake production

Use the flour Capone or mixer with wheat flour) to prepare cake better

Mix with egg, sugar, milk baking powder margarine and flavoring Bake at recommended temperature (usually 180o for about 30-40 minute

MATERIAL

Bambara flour

Butter

Sugar

Eggs

Baking powder

Liquid milk

Vanilla

Salt

Nutmeg

EQUIPMENTS

Working table

Mixing bowl

Measuring cup

Rolling pin

Baking pan

Sample A.

Recipe for Bambara nut into flour cake (100%)

Recipe	Quantity
Bambara flour	350kg
Butter	250kg
Sugar	250kg
Eggs	3 piece
Baking powder	1 teaspoon
Liquid milk	1
Vanilla	to taste
Salt	10g
Nutmeg	1/2 teaspoons

Method

- preheat oven 180o (350 r)
- grease your baking pan and dust with flour or line with baking powder
- cream the butter and sugar together until light
- add egg one at a time, beating well after each addition
- mix in vanilla
- in a separate bowl, mix Bambara nut flour baking powder and salt.
- gradually add the dry ingredients to the creamed mixture, alternating with milk. Mix gently
- pour batter into pan and level the top
- bake for 30 to 40 minute or until a tooth pick come out

Cool the cake, then slice and serve

Sample B.

Recipe and Quantity for Bambara flour and all purpose flour (80/20)

Bambara (80) all purpose flour (20)

Recipe	**Quantity**
Bambara flour	262.5kg
All purpose flour	43.75kg
Butter	250kg
Sugar	250kg
Eggs	3 piece
Baking powder	1 teaspoon
Liquid milk	1
Vanilla flour	To taste
Salt	To taste
Nutmeg	1/2 teaspoons

Method

- preheat oven 180o (350 r)
- grease your baking pan and dust with flour or line with baking powder
- cream the butter and sugar together until light
- add egg one at a time, beating well after each addition
- mix in vanilla
- in a separate bowl, mix Bambara nut flour baking powder and salt.

- gradually add the dry ingredients to the creamed mixture, alternating with milk. Mix gently

- pour batter into pan and level the top

- bake for 30 to 40 minute or until a tooth pick come out

Cool the cake, then slice and serve

Sample C.

Recipe and Quantity for Bambara flour and all purpose flour (50/50)

Recipe	Quantity
Bambara flour	175kg
All purpose	175kg
Butter	250kg
Sugar	250kg
Eggs	3 piece
Baking powder	1 teaspoon
Liquid milk	1
Vanilla flour	To taste
Salt	10g
Nutmeg	1/2 teaspoons

Method

- preheat oven 180o (350 r)

- grease your baking pan and dust with flour or line with baking powder

- cream the butter and sugar together until light

- add egg one at a time, beating well after each addition

- mix in vanilla

- in a separate bowl, mix Bambara nut flour baking powder and salt.

- gradually add the dry ingredients to the creamed mixture, alternating with milk. Mix gently

- pour batter into pan and level the top

- bake for 30 to 40 minute or until a tooth pick come out

Cool the cake, then slice and serve

Sample D.

Recipe and Quantity for Bambara flour and all purpose flour (70/30) Bambara (30) all purpose flour (70)

Recipe	**Quantity**
Bambara flour	262.5kg
All purpose flour	87.5kg
Butter	250kg
Sugar	250kg
Eggs	3 piece
Baking powder	1 teaspoon
Liquid milk	1
Vanilla flour	to taste
Salt	10g
Nutmeg	1/2 teaspoons

Method

- preheat oven 180o (350 r)

- grease your baking pan and dust with flour or line with baking powder

- cream the butter and sugar together until light

- add egg one at a time, beating well after each addition

- mix in vanilla

- in a separate bowl, mix Bambara nut flour baking powder and salt.

- gradually add the dry ingredients to the creamed mixture, alternating with milk. Mix gently

- pour batter into pan and level the top

- bake for 30 to 40 minute or until a tooth pick come out

Cool the cake, then slice and serve

Sample E.

Recipe and Quantity for all purpose flour (100%)

100% All purpose flour (control)

Recipe	**Quantity**
All purpose flour	350kg
Butter	250kg
Sugar	250kg
Eggs	3 piece
Baking powder	1 teaspoon
Liquid milk	1
Vanilla flour	to taste
Salt	10g

Nutmeg 1/2 teaspoons

Method

- preheat oven 180o (350 r)

- grease your baking pan and dust with flour or line with baking powder

- cream the butter and sugar together until light

- add egg one at a time, beating well after each addition

- mix in vanilla

- in a separate bowl, mix Bambara nut flour baking powder and salt.

- gradually add the dry ingredients to the creamed mixture, alternating with milk. Mix gently

- pour batter into pan and level the top

- bake for 30 to 40 minute or until a tooth pick come out

Cool the cake, then slice and serve

CHAPTER FOUR

4.1 INTRODUCTION

Sensory evaluation questionnaire were distributed from the hospitality department at Kwara state polytechnic Ilorin. A total of 50 sensory evaluation forms were collected and analyzed. They are organized into two characteristics respondents and section b which presents the sensory evaluation on data analysis

Section a: demographic characteristics of respondent the demographic data analysis in this research work based on response received from the administered sensory evaluation form

Table 1; GENDER OF RESPONDENTS

Gender	No of Respondents	Percentage %
Male	24	48%
Female	26	525
Total	50	100

Source; **FIELD SURVEY 2025**

The table above shows that 26% respondents representing 50% of the total respondents were female, while 24 respondents which is 48% were Male.

Table 2: age of respondents

Age group	No of Respondents	Percentage %
16-25	22	44%
26-45	18	36%
46 above	10	20%

Total	50	100

Source; **FIELD SURVEY 2025**

The table above indicate that 22 respondents (44%) were aged 16-25 years, therefore 18 respondents (36%) were aged 26-45 years and 45and above is 10 respondent 20% were aged 45 and above

Table 3 : educational background

Qualification	No of Respondents	Percentage %
SSCE	15	30%
OND/NCE	21	42%
HND/B.SC	12	24%
POST GRADUATE	2	4%
Total	50	100

Source; **FIELD SURVEY 2025**

The table represent that 15 respondents (30) had SSCE, 21 respondent (42%) held a OND/NCE, 12respondents (24%) of them is HND/B.sc degree and 2 respondents (4%) held a post graduate.

Table 4 marital status of respondents

Marital status	No of Respondents	Percentage %
Single	18	36%
Married	32	64%
Total	50	100

Source; **FIELD SURVEY 2025**

The table above shows that 18 respondents (36%) of the total respondents are single, while 32 respondent representing 64% were married.

Section B

Table 5: research based responses on the appearance of cake produced from Bambara nut flour?

Choice	No of Respondents	Percentage %
Excellent	24	48%
Very good	16	32%
Good	10	20%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table above shows that 24 respondents representing 48% of the total respondents at the overall used the appearance of cooking produced from Bambara nut flour as excellent , 16 respondents (32%) rate it as very good, 10 (20%) rated it as good, no respondent for fair and poor.

Table 6: Research based on the flavor of cake produced from bambara nut

Choice	No of Respondents	Percentage %
Excellent	16	32%
Very good	4	8%
Good	30	60%

Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The above table indicates the 16 respondents representing 32% of the respondent of the flavor of cake produced from Bambara nut as excellent 4 respondent (8%) rated it very good and 60% rated it as good, no response for fair and poor.

Table 7: Research based on the colour of cake produced from Bambara nut

Choice	No of Respondents	Percentage %
Excellent	10	20%
Very good	30	60%
Good	10	20%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 10 respondents representing 20% of the total respondent rated the colour of cake produced from Bambara nut is excellent. 30 respondents (60%) rate it has very good and 10 respondent (20%) rate it as good as no response for fair and poor.

Table 8: research based response on the texture of cake produced from Bambara nut

Choice	No of Respondents	Percentage %
Excellent	18	36%
Very good	16	32%
Good	16	32%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 18 respondents representing 36% of the total respondent rated the colour of cake produced from Bambara nut is excellent. 16 respondents (32%) rate it has very good and 16 respondent (32%) rate it as good as no response for fair and poor.

Table 9: research based on overall acceptability of cake produce from Bambara nut.

Choice	No of Respondents	Percentage %
Excellent	22	44%
Very good	18	36%
Good	10	20%
Fair	-	-%
Poor	-	-

Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 22 respondents representing 44% of the total respondent rated the overall acceptability cake produced from Bambara nut is excellent. 18 respondents (36%) rate it has very good and 10 respondent (20%) rate it as good as no response for fair and poor.

Table 10: research based on the responses of appearance of cake produced from Bambara nut (flour)

Choice	No of Respondents	Percentage %
Excellent	4	8%
Very good	30	60%
Good	16	32%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 4 respondents representing 8% of the total respondent rated the overall acceptability cake produced from Bambara nut is excellent. 30 respondents (60%) rate it has very good and 16 respondent (32%) rate it as good as no response for fair and poor.

Table 11: research on the response of on the flour of cake produced all-purpose flour control

Choice	No of Respondents	Percentage %
Excellent	30	60%
Very good	15	30%
Good	5	10%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 30 respondents representing 60% of the total respondent rated the flour of cake produced all- purpose flour control nut is excellent. 15 respondents (30%) rate it has very good and 5 respondent (10%) rate it as good as no response for fair and poor.

Table 12: research based on the colour of cake produced from all purpose flour control

Choice	No of Respondents	Percentage %
Excellent	16	32%
Very good	4	8%
Good	30	60%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 16 respondents representing 32% of the total respondent rated the colour of cake produced from all purpose flour control nut is excellent. 18 respondents (36%) rate it has very good and 12 respondents (24%) rate it as good as no response for fair and poor.

Table 13: research based on the texture of cake produced from all purpose flour control.

Choice	No of Respondents	Percentage %
Excellent	20	40%
Very good	18	36%
Good	12	24%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 20 respondents representing 40% of the total respondent rated the research based on the texture of cake produced from all purpose flour control excellent. 18 respondents (36%) rate it has very good and 12 respondent (24%) rate it as good as no response for fair and poor

Table 14; research based responses on the overall acceptability of cake produced from all purpose flour control

Choice	No of Respondents	Percentage %
Excellent	20	40%
Very good	16	32%
Good	14	28%
Fair	-	-%
Poor	-	-
Total	50	100

Source; **FIELD SURVEY 2025**

The table shows that 20 respondents representing 40% of the total respondent rated the research based responses on the overall acceptability of cake produced from all purpose flour control excellent. 16 respondents (32%) rate it has very good and 14 respondent (28%) rate it as good as no response for fair and poor

CHAPTER FIVE

5.1 CONCLUSIONS

From the findings in this research work, it can be concluded that Bambara nut can be a viable in the production of cakes, offering several advantages. Its use can provide a gluten-free option, improve texture, and enhance nutritional content. wheat products can cater to diverse consumer needs, including those with gluten intolerance or preferences for unique flavors and textures.

Advantages of Bambara nut

Processing involved cleaning, soaking doublings, drying and milling. Soaking help reduce anti. Nutritional factor such as tarnish and physiatrist. Dehulling improves texture and color, while drying and milling ensure she if stability proper processing enhance the flour functional properties makings it suitable for baking

5.2 RECOMMENDATIONS

i. Further Research: Conduct further research on optimal rice varieties, processing as well as Formulations for cake production.

ii. Product Development: Develop a range of Bambara nut cake products to cater to diverse consumer preferences and needs.

iii. Market Testing: Conduct market testing to assess consumer acceptance and Preferences for Bambara nut cakes.

iv. Industry Collaboration: Collaborate with industry stakeholders to promote the use of Bambara nut in production and to develop commercial products. By establishing the advantages of Bambara cake as an alternative in wheat snack production, manufacturers can create innovative, nutritious, and gluten-free products that meet evolving consumer demands.

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