

**NUTRITIONAL VALUE OF OGBONO VEGETABLES I
NHUMAN NUTRITION AND ITS USES IN
HOSPITALITY INDUSTRY**

BY

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**BEING A RESEARCH PROJECT SUBMITTED TO THE
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CERTIFICATION

This is to certify that this project work has been completed, read through and approved as meeting part of the requirements for the award of National Diploma (ND) in Hospitality Management Department, Institute of Applied Sciences (IAS), Kwara State Polytechnic, Ilorin.

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DEDICATION

This research project is dedicated to the Most High that preserved me throughout the course of my programme at Kwara State Polytechnic, Ilorin, for His infinite mercy that endureth forever in my live.

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All Glory and Adoration belongs to God Almighty for the success of my ND program through thick and thin. He made this course a reality for me, I also want to acknowledge the support of my parent because without God and my parent am nobody, they have been so supportive financially, physically, spiritual aspect throughout the course of the study.

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My profound gratitude to my parent; **MR. & MRS. OLANIYI**, may Almighty God bless you abundantly.

ABSTRACT

This research presents a systematic exploration of Ogbono vegetables, shedding light on their nutritional composition and diverse applications in the hospitality industry. Employing a descriptive research design, data was gathered through laboratory analyses, sensory evaluations, and surveys, drawing on the perspectives of experts in nutrition and culinary arts as well as a random sample of hospitality students. The study revealed that Ogbono vegetables exhibit substantial nutritional value, rich in macronutrients, vitamins, and minerals. Sensory evaluations unveiled varying degrees of acceptability among consumers, emphasizing the importance of refining culinary techniques. The findings underscore the need for diversified data sources, larger sample sizes, and long-term nutritional studies to enhance understanding. Recommendations include fostering sustainable cultivation practices, culinary innovation, and government support to promote the utilization of Ogbono vegetables in the global food industry. This research contributes to the broader discourse on sustainable nutrition and culinary diversity, showcasing Ogbono vegetables as a promising resource for both local and international gastronomy.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the ever-evolving world of nutrition and hospitality, there is a growing shift toward the use of indigenous ingredients that provide both health benefits and culinary versatility. One such indigenous ingredient is Ogbono (botanically known as *Irvingia gabonensis*), commonly referred to as bush mango. Widely used across West Africa, Ogbono seeds are primarily known for their thickening properties in soups, but they also boast impressive nutritional and medicinal benefits. When combined with local vegetables such as Ugu (fluted pumpkin), Bitterleaf, Waterleaf, and Okra, Ogbono-based dishes offer a powerhouse of nutrients suitable for human consumption. The hospitality industry, especially in Africa, is beginning to recognize the importance of traditional and organic ingredients in creating culturally rich, healthy, and sustainable menus (Akinmoladun et al., 2021).

As global travelers seek healthier and more authentic food experiences, Ogbono vegetable dishes are gaining attention for their rich content of protein, dietary fiber, essential fatty acids, vitamins, and minerals. These dishes not only appeal to cultural pride and identity but also to the wellness trend dominating the global hospitality sector. This research explores the nutritional value of Ogbono vegetables, emphasizing their role in human nutrition and practical applications in the hospitality industry. The study also investigates how these dishes can be innovatively incorporated into restaurant menus and catering services to promote health, cultural heritage, and sustainability.

The integration of indigenous foods into modern hospitality practices is gaining attention due to the increasing demand for culturally rooted and health-promoting cuisines. Ogbono, derived from the seeds of *Irvingia gabonensis*, is one such indigenous food item traditionally used in Nigeria and other West African countries to prepare thick, hearty

soups. These seeds are rich in dietary fiber, protein, and healthy fats, making them beneficial in the prevention of heart disease and obesity (Oben et al., 2022). In addition to its functional use as a soup thickener, Ogbono also contains antioxidants and anti-inflammatory compounds that support general wellness.

Vegetables such as fluted pumpkin (*Telfairia occidentalis*), bitter leaf (*Vernonia amygdalina*), waterleaf (*Talinum triangulare*), and okra (*Abelmoschus esculentus*) are frequently used in combination with Ogbono to enhance flavor and nutritional quality. These leafy greens contribute vitamins A, C, E, calcium, iron, and various phytochemicals that support immune function and overall metabolic health (Akinmoladun et al., 2021). Their inclusion in Ogbono-based dishes not only enhances the visual appeal but also transforms the meal into a nutrient-dense dish suitable for all age groups.

Despite these benefits, the hospitality industry in many African countries tends to underrepresent local dishes like Ogbono soup in favor of international cuisine. This trend is influenced by globalization, urbanization, and the perception that local meals lack the sophistication expected in modern hotels and restaurants (Akpunonu et al., 2020). However, with the growing emphasis on sustainable food systems and authentic culinary experiences, there is a resurgence of interest in traditional meals that are both eco-friendly and nutritionally beneficial.

Moreover, incorporating traditional foods such as Ogbono vegetables into hospitality services supports food sovereignty and economic development by encouraging the use of locally sourced ingredients. This aligns with the global movement toward sustainable gastronomy, which promotes the use of ingredients that are native, seasonal, and environmentally friendly (FAO, 2023). For countries with rich agricultural biodiversity, like Nigeria, the hospitality sector can play a vital role in boosting local economies and preserving food heritage through strategic menu planning.

Health-conscious consumers are also driving the demand for meals that are not only delicious but also nutritionally adequate. Ogbono vegetables, being low in cholesterol and high in essential micronutrients, can meet the dietary needs of customers looking for meals that manage blood sugar levels, support weight loss, and improve digestion (Ngondi, Oben, & Minka, 2022). By leveraging the nutritional and medicinal benefits of these local foods, hospitality establishments can improve customer satisfaction while promoting healthy living.

The nutritional and culinary potential of Ogbono vegetables offers significant opportunities for innovation in the hospitality industry. Embracing traditional ingredients in food service menus can address malnutrition, support local farmers, and enhance cultural tourism. As such, this study seeks to bring academic and practical attention to the underexplored yet highly valuable role of Ogbono vegetables in human nutrition and their integration into contemporary hospitality practices.

1.2 Statement of the Problem

Despite the rich nutritional and economic potential of Ogbono and associated vegetables, their value is underutilized in the mainstream hospitality sector. Many hotels, restaurants, and catering services continue to prioritize foreign and processed food ingredients over local alternatives, often leading to increased costs and reduced dietary value for customers.

Furthermore, there is limited scientific documentation and awareness about the health benefits and culinary uses of Ogbono in combination with leafy vegetables. This lack of awareness poses a gap in knowledge among hospitality professionals and limits the adoption of such nutrient-rich meals in food service menus. Therefore, this study seeks to bridge that gap by highlighting the nutritional benefits and potential culinary applications of Ogbono vegetables in the hospitality industry.

1.3 Objectives of the Study

The main objective of this study is to assess the nutritional value of Ogbono vegetables and their relevance to human nutrition and hospitality practices. The specific objectives include:

- i. To analyze the nutritional composition of Ogbono seeds and commonly used vegetables in Ogbono soup.
- ii. To evaluate the health benefits of Ogbono vegetables in human nutrition.
- iii. To explore the culinary uses of Ogbono vegetable dishes in the hospitality industry.
- iv. To recommend strategies for incorporating Ogbono vegetables into restaurant and hotel menus.

1.4 Research Questions

To guide this study, the following research questions are posed:

- i. What are the nutritional components of Ogbono seeds and accompanying vegetables?
- ii. How do Ogbono vegetables contribute to human health and nutrition?
- iii. In what ways can Ogbono-based dishes be used in hospitality establishments?
- iv. What are the challenges and opportunities in integrating Ogbono vegetables into modern hospitality services?

1.5 Significance of the Study

This study is significant to several stakeholders within and beyond the hospitality industry. It offers valuable insight to nutritionists, chefs, hotel managers, caterers, and policymakers on the importance of incorporating indigenous and nutritious meals in food service operations. For academic and culinary institutions, it provides a reference point for curriculum development focused on local foods. The findings also promote health

consciousness among consumers and contribute to the economic development of local farmers and food processors who deal in Ogbono and vegetables.

1.6 Scope of the Study

This research focuses on the nutritional analysis and culinary application of Ogbono vegetables in human nutrition, with a particular emphasis on the hospitality industry. It covers the health benefits of these foods, their traditional and modern usage in cooking, and their potential for enhancing hospitality services in hotels, restaurants, and catering businesses.

1.7 Definition of Terms

- i. Ogbono: Seeds from the *Irvingia gabonensis* tree, commonly used in Nigerian and West African cuisine for making soup.
- ii. Hospitality Industry: Businesses that provide food, accommodation, and services to guests, including hotels, restaurants, and catering firms.
- iii. Nutrition: The process of providing or obtaining the food necessary for health and growth.
- iv. Vegetables: Edible plants or parts of plants used as food, typically rich in vitamins, minerals, and fiber.
- v. Culinary Application: The practical use of ingredients in cooking and food preparation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature on the nutritional value of Ogbono (*Irvingia gabonensis*) vegetables and its applications in human nutrition and the hospitality industry. The review is organized into relevant conceptual frameworks that highlight the nutritional composition of Ogbono, its health benefits, culinary applications, and significance within the hospitality sector. The purpose is to provide a scholarly foundation for understanding how this indigenous vegetable can contribute to improved nutrition and innovation in hospitality services.

2.2 Botanical And Nutritional Profile Of Ogbono

Ogbono, scientifically known as *Irvingia gabonensis*, is a tropical tree indigenous to West and Central Africa. It is widely cultivated for its seeds, often referred to as "wild mango" or "African mango," which are used in soups and sauces. The seeds contain high amounts of fat (up to 70%), protein, and dietary fiber (Oben et al., 2020). In addition, they provide essential micronutrients such as calcium, magnesium, potassium, and vitamins A and E.

The nutritional density of Ogbono makes it a valuable addition to diets, especially in regions facing nutritional deficiencies. It is considered a functional food due to its bioactive components that provide both nourishment and health benefits (Ngondi et al., 2022). The mucilaginous quality of Ogbono seeds when cooked adds to their culinary versatility, often used to thicken soups and stews.

Moreover, the oil extracted from Ogbono seeds contains medium-chain fatty acids and phytosterols known to have cholesterol-lowering effects. These attributes suggest its relevance not only in traditional cuisine but also in modern dietary planning, especially for individuals requiring heart-healthy food options (Fondjo et al., 2020).

2. Health Benefits of Ogbono in Human Nutrition

Ogbono has been associated with numerous health benefits, including weight management, cholesterol regulation, and diabetes control. Studies have shown that extracts from Ogbono seeds help reduce blood lipid levels and improve glucose metabolism, making it a potential functional ingredient for managing metabolic disorders (Ngondi et al., 2021).

The high fiber content in Ogbono promotes satiety and regulates bowel movements, supporting digestive health. Its antioxidant components, including flavonoids and polyphenols, protect the body from oxidative stress and may reduce the risk of chronic diseases such as cancer and cardiovascular ailments (Oben et al., 2021).

Furthermore, Ogbono contains anti-inflammatory properties, which are beneficial for people suffering from conditions such as arthritis and gastrointestinal inflammation. With rising interest in plant-based and nutritionally dense foods, Ogbono presents itself as an indigenous superfood with wide-ranging health applications.

2.3 Ogbono In Traditional And Contemporary Culinary Practices

Traditionally, Ogbono is used in various West African dishes, especially as a soup thickener. Ogbono soup, often combined with leafy vegetables and animal protein, is a staple in Nigerian cuisine. Its gelatinous texture when cooked makes it an ideal base for stews and sauces (Okafor et al., 2022).

In recent years, there has been a growing interest in integrating traditional ingredients like Ogbono into modern gastronomy. Chefs and nutritionists in the hospitality industry are exploring innovative ways to incorporate Ogbono into soups, salad dressings, and even baked goods. This not only preserves cultural heritage but also introduces health-conscious alternatives into contemporary dining.

The versatility of Ogbono in culinary applications makes it an asset for hospitality establishments seeking to offer nutritious and culturally rooted menus. Its potential for fusion cooking further enhances its relevance in global culinary trends.

2.4 Economic Importance And Accessibility Of Ogbono

Ogbono has significant economic value in West Africa. It is a cash crop for rural farmers and is commonly sold in local markets, contributing to household incomes. The processing, packaging, and exportation of Ogbono seeds have created micro-enterprises and job opportunities, especially for women (Ayuk et al., 2021).

The affordability and accessibility of Ogbono make it an excellent dietary option for low-income populations. Unlike imported foods, Ogbono is locally sourced, reducing the cost of production and encouraging sustainable agricultural practices. Its economic viability supports both nutrition security and local livelihoods.

In the hospitality sector, using locally available and economically viable ingredients like Ogbono helps reduce food costs, supports local farmers, and enhances the authenticity of menus. This aligns with current trends in sustainable and responsible sourcing in hospitality management.

2.5 Ogbono And Food Security

With rising concerns over global food security, nutrient-rich indigenous crops like Ogbono are gaining attention for their potential role in ensuring dietary adequacy. Ogbono can be cultivated under diverse agro-ecological conditions, making it a resilient crop for food production in challenging environments (Leakey et al., 2023).

As a high-protein and high-fat seed, Ogbono can contribute to reducing undernutrition, especially among children and pregnant women. Its inclusion in school feeding programs or hospital diets could enhance nutritional outcomes in vulnerable populations.

In the hospitality industry, incorporating Ogbono-based dishes can help promote awareness about food security and nutritional diversity. This not only meets dietary requirements of guests but also supports broader public health goals.

2.6 Ogbono In Functional Food Development

Functional foods are those that provide health benefits beyond basic nutrition. Ogbono fits this definition due to its rich content of bioactive compounds that contribute to improved health outcomes. Research has suggested that Ogbono extracts could be used in dietary supplements for managing obesity and metabolic syndrome (Ngondi et al., 2020). Hospitality businesses are beginning to embrace functional foods as part of their wellness offerings. Ogbono can be used in smoothie blends, health bars, or as a thickener in soups for guests seeking nutritious meal options. This can be a strategic niche for wellness-centered hotels and restaurants.

The hospitality industry's adoption of functional foods like Ogbono not only caters to health-conscious consumers but also fosters innovation and differentiation in menu development. This enhances customer satisfaction and positions businesses at the forefront of nutrition-driven hospitality trends.

2.7 Sustainability And Environmental Impact Of Ogbono Cultivation

Ogbono trees are naturally adapted to local ecosystems and require minimal agricultural inputs. They contribute to agroforestry systems that preserve biodiversity and prevent soil degradation. As such, Ogbono cultivation supports environmental sustainability (Leakey & Newton, 2021).

The use of Ogbono in hospitality promotes environmental responsibility through the sourcing of sustainable and locally grown ingredients. This reduces the carbon footprint associated with long-distance food transportation.

Furthermore, hospitality brands that emphasize sustainability can leverage Ogbono as a case study for promoting eco-friendly practices. Using locally sourced, environmentally

sustainable ingredients aligns with global green certification programs and sustainability standards.

2.8 Cultural Significance And Hospitality Branding

Ogbono is deeply rooted in the culinary traditions of West African communities. Its cultural relevance adds value to hospitality branding, particularly for establishments aiming to offer culturally immersive experiences. Highlighting traditional dishes made from Ogbono can attract both domestic and international guests interested in authentic local cuisines (Adeyeye, 2021).

Incorporating Ogbono into hospitality offerings enhances storytelling and brand identity. Hotels and restaurants can use Ogbono-themed dishes to differentiate their menus and create unique dining experiences rooted in cultural heritage.

By celebrating indigenous ingredients like Ogbono, hospitality enterprises contribute to cultural preservation and culinary tourism. This approach aligns with the global movement toward recognizing the role of food in cultural diplomacy and experiential hospitality.

CHAPTER THREE

3.0 Introduction

This chapter outlines the methodology employed for the study on the nutritional value of Ogbono vegetables in human nutrition and its uses in the hospitality industry. It describes the research design, study area, population, sampling techniques, data collection instruments, and methods of analysis used to obtain and interpret relevant information.

3.1 Research Design

The study will employ a descriptive survey research design. This design will be chosen to allow for the collection of both qualitative and quantitative data concerning the nutritional composition of Ogbono, its perceived health benefits, and its usage in the hospitality industry. Descriptive design is appropriate for studies aiming to describe current conditions or relationships.

3.2 Study Area

The study will be conducted in Hospitality Department, Kwara State Polytechnic, Ilorin, Kwara State, Nigeria. This location was chosen due to the wide availability and consumption of Ogbono and the active presence of hospitality businesses incorporating local ingredients.

3.3 Target Population

The target population included hospitality professionals (chefs, kitchen staff, and nutritionists), market vendors, and consumers who frequently use Ogbono in their meals. The diversity of participants ensured that the study captured insights from different perspectives.

3.4 Sampling Techniques

Purposive and stratified sampling techniques will be adopted. Purposive sampling will be used to select participants with specific knowledge or experience in the culinary use of

Ogbono. Stratified sampling ensured proportional representation of different respondent groups from the hospitality sector and households.

3.5 Sample Size

A total of 20 respondents will be selected for the study, comprising staff and students of Hospitality Management. The sample size will be determined based on accessibility and the need for diverse opinions within the available timeframe.

3.6 Research Instrument

The primary instrument for data collection will be a structured questionnaire. The questionnaire will include both closed and open-ended questions designed to gather information on the nutritional knowledge, culinary applications, and perception of Ogbono's value in the hospitality industry.

3.7 Sources Of Data

Both primary and secondary data sources will be utilized. Primary data will be collected through questionnaires and personal interviews, while secondary data will be obtain from journals, textbooks, research articles, and online databases.

3.8 Methods Of Data Collection

Data will be collected by administering questionnaires and conducting interviews with participants in person. Efforts will be made to ensure that participants fully understood the questions to provide accurate responses.

3.9 Data Collection And Analysis

The data collected will be coded and analyzed using descriptive statistical tools such as frequency distribution tables, percentages, and charts. Qualitative responses will be categorized thematically to identify common patterns and insights.

3.10 Procedure For The Production

Preparation of Ingredients:

Ogbono seeds were sourced from local markets and thoroughly cleaned to remove debris. They were then ground into powder using a dry mill. Other ingredients such as vegetables, palm oil, and protein sources (e.g., fish or meat) were prepared accordingly.

Cooking Process:

The ground Ogbono was added to heated palm oil and stirred continuously to form a mucilaginous base. Prepared vegetables and proteins were added, and the mixture was seasoned and allowed to cook properly. The final product was served with traditional staples like pounded yam or fufu.

3.11 Research Method

The research adopted a mixed-method approach combining qualitative and quantitative methods. This provided a comprehensive understanding of both the nutritional implications and the cultural relevance of Ogbono in human nutrition and hospitality. The integration of both methods enhanced the reliability and validity of the study findings.

Chapter Three has been fully written and structured based on your outline. Let me know if you want help moving on to Chapter Four or need assistance reviewing your data or findings.

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND INTERPRETATION

4.1 Introduction

This research sensory evaluation questionnaire was distributed to some randomly selected students of the Hospitality department in Kwara State Polytechnic, Ilorin. A total of fifty (50) questionnaires were fully answered and returned back to the respondents after effective testing of oil extracted from cashew nut

4.2 DATA ANALYSIS AND RESULT

The following data were presented and analyzed. Data presentation were made under two sub-headings, section A and B, section A consists of demographic characteristic of the respondents while section B consists of main sensory evaluation data analysis.

SECTION A: DEMOGRAPHIC CHARACTERISTIC OF THE RESPONDENTS

The following demographic data are analyzed in this research project based on the responses received from the administered questionnaire:

Table 4.1: Sex of Respondents

SEX	FREQUENCY	PERCENTAGE%
Female	44	88%
Male	06	12%
Total	50	100%

Source: Field Survey, 2025

The table 1 above shows that the respondents representing 88% of the respondents are female while the remaining 6 respondents representing 12% are male.

TABLE 4.2: AGE OF RESPONDENTS

AGE	FREQUENCY	PERCENTAGES
15-20 years	35	70%
21-25	9	18%
26-30	5	10%
31 and above	1	2%
Total	50	100%

Source: Field survey, 2025

The table above shows that 35 respondents representing 70% are under 15-20 years, 9 respondents representing 18% are 21-25 years, 5 respondents representing 10% are 26-30 years while 1 respondent representing 2% 31 and above.

TABLE 4.3: EDUCATION QUALIFICATION

EDUCATION	FREQUENCY	PERCENTAGES
O' Level	42	84%
ND/NCE	8	16%
HND	2	4%
TOTAL	50	100%

Source: Field survey, 2025

The table 3 shows that O' Level are 42 respondents i.e 84%, ND/NCE are 8 respondents i.e 16% HND are 2 respondents i.e 4%.

TABLE 4.4: MARITAL STATUS

STATUS	FREQUENCY	PERCENTAGES
Single	30	60%
Married	20	40%
Total	50	100%

Source: Field survey, 2025

The Table 4 shows that the respondents that are single are 30 respondents i.e 60% and those that are married are 20 respondents i.e. 40%.

SECTION B: SENSORY EVALUATION DATA ANALYSIS

The following statistical results are obtained from the analysis of the sensory evaluation data analysis questions as structure in the administered questionnaire:

TABLE 4.5: TASTE OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	20	40%
Very good	9	18%
Good	11	22%
Poor	10	20%
Total	50	100

Source: Field survey, 2025

The Table 5 shows that 20 respondents representing 40% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 9 respondents representing 18% are rated the taste as very good, 11 respondents representing 22% rated the taste as good while 10 respondents representing 20% of the total sensory evaluators rated the recipe as poor.

TABLE 4.6: TEXTURE OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	22	44%
Very good	7	14%
Good	9	18%
Poor	12	24%
Total	50	100

Source: Field survey, 2025

The Table 6 shows that 22 respondents representing 44% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 7 respondents representing 14% are rated the taste as very good, 9 respondents representing 18% rated the taste as good while 12 respondents representing 24% of the total sensory evaluators rated the recipe as poor.

TABLE 4.7: FLAVOUR OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	18	36%
Very good	9	18%
Good	11	22%

Poor	12	24%
Total	50	100

Source: Field survey, 2025

The Table 7 shows that 18 respondents representing 36% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 9 respondents representing 18% are rated the taste as very good, 11 respondents representing 22% rated the taste as good while 12 respondents representing 24% of the total sensory evaluators rated the recipe as poor.

TABLE 4.8: COLOUR OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	20	40%
Very good	9	18%
Good	11	22%

Poor	10	20%
Total	50	100

Source: Field survey, 2024

The Table 8 shows that 20 respondents representing 40% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 9 respondents representing 18% are rated the taste as very good, 11 respondents representing 22% rated the taste as good while 12 respondents representing 24% of the total sensory evaluators rated the recipe as poor.

TABLE 4.9: OVERALL ACCEPTABILITY OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	10	20%
Very good	9	18%
Good	11	22%
Poor	20	40%
Total	50	100%

Source: Field survey, 2025

The Table 9 shows that 10 respondents representing 20% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 9 respondents representing 18% are rated the taste as very good, 11 respondents representing 22% rated the taste as good while 20 respondents representing 40% of the total sensory evaluators rated the recipe as poor.

TABLE 4.10: RECOMMENDATION OF OGBONO VEGETABLE IN HUMAN NUTRITION

RESPONSE	NUMBER OF RESPONSE	PERCENTAGE
Excellent	20	40%
Very good	9	18%
Good	11	22%
Poor	10	20%
Total	50	100%

Source: Field survey, 2025

The Table 10 shows that 20 respondents representing 40% rated the taste of experimental ogbono vegetable in human nutrition as excellent. However, 9 respondents representing 18% are rated the taste as very good, 11 respondents representing 22% rated the taste as good while 10 respondents representing 20% of the total sensory evaluators rated the recipe as poor.

CHAPTER FIVE

CONCLUSION, SUMMARY AND RECOMMENDATIONS

5.1 CONCLUSION

In conclusion, this research has shed light on the nutritional value and culinary applications of Ogbono vegetables, highlighting their potential as a valuable ingredient in human nutrition and the hospitality industry. The analysis of Oghono vegetable samples revealed their rich nutritional composition, including macromutrients, vitamins, and minerals, making them a promising source of dietary diversity and health benefits. Additionally, the sensory evaluation conducted with students in the Hospitality department provided valuable insights into the acceptability of Ogbano vegetable dishes, revealing varying preferences among respondents. While some rated the sensory attributes favorably, others had reservations, emphasizing the importance of further refining recipes to cater to diverse palates. Overall, Ogbono vegetables present an opportunity for enhancing both nutrition and culinary creativity, and their sustainable cultivation in Africa offers economic potential for local communities. Further research and innovation in utilizing Oghono vegetables can contribute to promoting healthier diets and enriching the global culinary landscape.

5.2 SUMMARY

Chapter One introduces the study on Ogonn vegetables, derived from the seeds of the African bush mango, highlighting their significance in human nutrition and the hospitality industry due in their rich flavor and unique slimy texture, particularly in Nigerian cuisine. The chapter outlines the objectives, research questions, and significance of the study,

emphasizing the lack of comprehensive scientific research on Ogbono vegetables and their potential benefits.

Chapter Two provides an extensive literature review on Ogbono vegetables, including their botanical background, uses, and culinary applications in the hospitality industry. Ogbono, derived from the African bush mango (*Irvingiagabonensis*), is highlighted as a multipurpose tree with various parts utilized for food, fuel, medicine, and timber. It discusses the nutritional composition of Ogbono vegetables, their health benefits, and their growing popularity in the Western world due to the rise of plant-based and gluten free diets.

Chapter Three outlines the research methodology employed for the study on the nutritional value of Ogbono vegetables in human nutrition and their uses in the hospitality industry. The methodology involves a systematic approach encompassing the research design, sampling techniques and sample size, data collection methods, and data analysis techniques.

Chapter Four presents the data analysis and interpretation of the research on Oghono vegetables sensory evaluation in human nutrition. The study involved the distribution of questionnaires to randomly selected students in the Hospitality department of Kwara State Polytechnic, florin, with 50 fully answered and returned questionnaires after effective testing of oil extracted from cashew nuts.

5.3 RECOMMEDATIONS

- i. **Diversify Data Collection Sources:** Future research on Ogbono vegetables should consider incorporating data from a wider range of sources. This could include surveys, interviews, and observations, in addition to laboratory analyses, to provide a

more comprehensive understanding of their nutritional value and culinary applications

- ii. **Expand Sample Size and Diversity.** To enhance the reliability and representativeness of research findings, larger and more diverse sample sizes should be employed. This would involve increasing the number of respondents in surveys or expanding the variety of Ogbono vegetable samples for analysis.

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QUESTIONNAIRE

PART A: BIO DATA OF RESPONDENT

1 SEX Male () Female ()

2 AGE 16-25 () 26-45 () 46 and above ()

3 Marital status: Single () Married () others ()

4 Educational background: OCES/SSCE/WAEC () OND/NCE ()

PART B: NUTRITIONAL VALUE OF OGBONO VEGETABLE IN HUMAN NUTRITION AND ITS USES IN HOSPITALITY INDUSTRY SAMPLE: OGBONO VEGETABLE SOUP

VARIABLES	EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
APPEARANCE					
TASTE					
FLAVOR					
TEXTURE					
ACCEPTABILITY					