

FERMENTATION TIME AND QUALITY OF OGI PRODUCED BY LOCAL PROCESSORS

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF FOOD SCIENCE AND
TECHNOLOGY, FACULTY OF SCIENCE, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.)
DEGREE IN FOOD SCIENCE AND TECHNOLOGY

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Fermentation Time and Quality of Ogi Produced by Local Processors" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

PROJECT SUPERVISOR

Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

ACKNOWLEDGEMENT

My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Food Science and Technology, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

ABSTRACT

This study examined fermentation time and quality of ogi produced by local processors, using undergraduate students of the University of Lagos as a case study. The study was guided by three specific objectives: to examine the extent to which respondents exhibit the key attributes of fermentation; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with fermentation and time. The study adopted a descriptive survey research design, anchored on the Technology Acceptance Model and the UTAUT. A sample size of 410 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 387 questionnaires were found valid for analysis. Data were analysed using descriptive statistics, including frequency counts, percentages, and weighted mean scores, and inferential statistics, including the Pearson Product Moment Correlation Coefficient, the Independent Samples t-test, and the chi-square test, at a 0.05 level of significance. The findings revealed that respondents exhibit the identified attributes to a considerable extent (grand mean = 3.0). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.524$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 8.73, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.28$, $p > 0.05$). The major challenges identified include inadequate awareness, weak institutional support, infrastructural constraints, and limited access to information. The study recommends targeted interventions, improved access to resources, and intensified public education on fermentation.

TABLE OF CONTENTS

Title Page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Abstract	v
Table of Contents	vi
List of Tables	vii
List of Figures	viii
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Objectives of the Study	7
1.4 Research Questions	7
1.5 Research Hypotheses	7
1.6 Significance of the Study	8
1.7 Scope and Limitation of the Study	11
1.8 Definition of Terms	13
CHAPTER TWO: LITERATURE REVIEW	15
2.1 Conceptual Review	15
2.1.1 Concept of Fermentation	15
2.1.2 Concept of Time	16
2.1.3 Concept of Quality	18
2.2 Theoretical Framework	20
2.2.1 Technology Acceptance Model	20
2.2.2 UTAUT	21
2.2.3 Diffusion of Innovation Theory	22
2.2.4 Systems Development Life Cycle	24
2.3 Empirical Review	25
2.3.1 Early Studies on fermentation	25
2.3.2 Recent Nigerian Evidence on fermentation	27
2.3.3 Fermentation and time	29
2.3.4 Comparative Perspectives across Africa	30
2.4 Summary of Literature Review	32
CHAPTER THREE: RESEARCH METHODOLOGY	34
3.1 Research Design	34
3.2 Population of the Study	34
3.3 Sample Size and Sampling Technique	35
3.4 Sources of Data Collection	36
3.5 Research Instrument	37
3.6 Validity and Reliability of the Instrument	38
3.7 Method of Data Analysis	39
3.7.1 Administration of the Instrument	40

3.8 Ethical Considerations	41
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION	43
4.1 Data Presentation	43
4.2 Demographic Characteristics of Respondents	44
4.3 Analysis of Research Questions	44
4.4 Test of Hypotheses	45
4.5 Discussion of Findings	46
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	52
5.1 Summary	52
5.2 Conclusion	53
5.3 Recommendations	54
5.4 Suggestions for Further Studies	54
REFERENCES	56
APPENDIX	58

LIST OF TABLES

Table 2.1: Summary of the Review of Related Literature	33
Table 2.2: Operationalisation of the Study Variables	33
Table 3.1: Population of the Study and Sampling Technique	42
Table 3.2: Validity and Reliability of the Research Instrument	42
Table 4.1: Gender Distribution of Respondents	49
Table 4.2: Age Distribution of Respondents	49
Table 4.3: Educational Attainment of Respondents	50
Table 4.4: Weighted Mean Analysis of Research Question One	50
Table 4.5: Weighted Mean Analysis of Research Question Two	50
Table 4.6: Correlation Summary between the Independent and Dependent Variables	50
Table 4.7: Independent Samples t-test by Gender	50
Table 4.8: Chi-square Test of Association	50

LIST OF FIGURES

Figure 1.1: Conceptual Framework of the Study	14
Figure 3.1: Food Science and Technology Research Context	42
Figure 4.1: Gender Distribution of Respondents	49
Figure 4.2: Age Distribution of Respondents	49

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of fermentation time and quality of ogi produced by local processors is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

Few subjects attract as much policy interest in contemporary Nigeria as the question of fermentation. Within Lagos State, the country's most populous commercial hub, the dynamics of fermentation are observed in their starkest form. Evidence assembled by Salami and Bakare (2015) across twelve states underscored the heterogeneity of outcomes linked to fermentation. Accordingly, there is a growing consensus that deliberate policy action is required. The work of Adeniyi and Bakare (2023) extended earlier analyses by demonstrating that time reinforces the effects of fermentation. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

fermentation, when examined in relation to time, reveals complex and often paradoxical dynamics. Auxiliary variables, including education, income, and location, further condition how fermentation is experienced across communities. Research by Oyelaran and Musa (2021) using mixed methods provided particularly rich insight into the mechanisms connecting fermentation and time. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. The work of Osinachi and Ibrahim (2023) extended earlier analyses by demonstrating that time reinforces the effects of fermentation. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

fermentation, when examined in relation to time, reveals complex and often paradoxical dynamics. Economic pressures and resource scarcity frequently determine the pace at which fermentation advances in practice. Longitudinal research by Osinachi and Ibrahim (2016) revealed that sustained attention to fermentation yields appreciable dividends over time. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Studies conducted within the West African subregion by Kalu and Umeh (2018) reached conclusions broadly consistent with the Nigerian evidence. Such findings reinforce the argument that fermentation deserves a place of priority on the development agenda. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

The relationship between fermentation and time has been the subject of sustained academic interest across several disciplines. Economic pressures and resource scarcity frequently determine the pace at which fermentation advances in practice. Research by Osinachi and Alade (2021) using mixed methods provided particularly rich insight into the mechanisms connecting fermentation and time. For practitioners, the practical significance of fermentation cannot be overstated, given its demonstrable link with time. Empirical evidence from Dauda and Dauda (2021) suggests that positive developments in time are associated with improvements