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Editorial

This edition of NIU Journal of Social Sciences focuses on Development Administration, Security Studies, Citizens Journalism, Religious Studies, Social Media Communication and Social Psychology.

One of the papers, in this issue, highlights the importance of trust in institutions, created through credible and transparent digital communication, which is reinforced by interactive dialogue, whereas misinformation erodes it. The paper, therefore, suggests that the government of Edo State focus on credible and timely communication, setting of digital fact-checking mechanisms, and sustaining citizens' engagement to bolster their trust.

Another paper also identifies cruel administration, incompetence and inefficiency, corruption and extortion, reaction to self-failure, lack of accountability and impunity among others as causes of anger in public service. While the effects of anger on public service delivery include erosion of trust, decreased citizen participation, possibility of societal discontent and reform obstacle. The paper therefore, recommends enhanced communication, improved service quality promoting trust and emotional support as effective ways to management anger in the service.

Readers are advised to make proper use of the ideas presented by the various authors in this issue of NIU Journal of Social Sciences. Some of these papers are empirical in nature while others have theoretical base. Each of them focuses on one specific social and management problem or the other; trying to proffer solutions to them.

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Employing Ethical Ideology in Employee Welfare: An Analytical Study of the Opinions of a Sample of Employees at the Karbala Education Directorate

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Abstract. The objective of this research was to analyze and explain the nature and effect of the independent variable (ethical ideology) and its dimensions (moral idealism, moral relativism) on the dependent variable (employee welfare) and its dimensions (workplace welfare, psychological welfare, and life welfare). This was reflected in the major question: (What is the relationship between ethical ideology and employee welfare?) The study was carried out in the Karbala Education Directorate and involved a random sample of (278) respondents who held a bachelor's degree or higher from the research population of (1000) employees. The main data collection method was a questionnaire developed using a five-point Likert scale. The study relied on a number of descriptive and analytical statistical approaches, the most important of which are the arithmetic mean, standard deviation, correlation coefficient, and linear regression. The data were evaluated and processed with the aid of modern statistical software (SPSS). This study has led to several findings and applications, the most noteworthy of which was the significant and beneficial effect of ethical ideology in its dimensions on the enhancement of the welfare of employees in the studied business. Based on the results, it was advised that the Directorate of Education adopt and update its code of ethical conduct and provide a supportive work environment that contributes to improving the professional and psychological welfare of its administrative and instructional staff.

Keywords: Ethical Ideology, Employee Welfare, Karbala Education Directorate.

1. Introduction

Ethical ideology is regarded as the most essential cognitive philosophy and behavioral guide for human resources in modern organizations. It is the frame of reference people use to understand circumstances and make decisions in organizations. In view of the rapid pace of change, the notion has become a crucial motivator to improve employee welfare in its psychological, professional, and life aspects, being the cornerstone to attain institutional stability and a sustainable competitive advantage.

The importance of this research is highlighted by the provision of a theoretical and practical framework that links the ethical ideology with the welfare of the employees in the educational service sector (Karbala Education Directorate), which contributes to providing practical insights for the administrative leaders to improve the work environment and formulate policies that achieve the compatibility between ethical principles and practical flexibility.

The research gap is the lack of Arabic studies, especially in the Iraqi context, that have addressed the direct interaction between the dimensions of ethical ideology (idealism and relativism) and their comprehensive impact on the three dimensions of employee welfare (workplace, psychological, and life), especially in the institutional sectors of a service and educational nature. Several difficulties hampered the research, especially identifying and securing the cooperation of administrative workers under daily job pressure, as well as the initial unwillingness of certain interviewees to reveal their ethical and psychological orientations. To tackle these problems, the secrecy and

solely scientific character of the questionnaire were stressed.

The research was divided into four portions. The first covered the technique, the second the theoretical framework, the third the practical elements, and the fourth and final portion presented the results and recommendations based on the statistical analysis.

2. Research Method

The problem, aims, significance, study technique, methods for data collection and analysis, and statistical processing are explained in this part as follows:

2.1 The Research Problem

The epistemological problem is that there is a lack of administrative literature and studies at the local and Arab levels that have addressed the direct and integrated interaction between the dimensions of ethical ideology (idealism and relativism) and their simultaneous impact on the total dimensions of employee welfare (workplace, psychological welfare, and life welfare). The majority of the existing literature has been concentrated on these factors individually. It has not provided a holistic explanatory model that explains how an individual's ethical philosophy helps develop organizational and personal welfare in the educational service sector.

The practical concern is the increasing organizational obstacles and pressures on administrative and pedagogical staff in the Karbala Education Directorate, and the occasional discrepancy between convictions and ethical actions when coping with changing events. This will have future implications for the levels of psychological stability and sense of welfare at work and in life of the employees, requiring a concrete field evaluation to establish the extent to which staff comprehend ethical principles and their role in increasing their overall welfare.

Thus, the research problem is connected with the following main question:

- What is the relationship between ethical ideology and its dimensions and employee welfare in the organization under study?

This primary question gives rise to the following sub-questions:

- How are the comprehension and application of ethical ideology elements (ethical idealism, ethical relativism) by employees in the Karbala Education Directorate?
- What is the status of employee welfare in its dimensions (workplace welfare, psychological

welfare, and life welfare) obtained at the organization under study?

- Is there a statistically significant association and influence of ethical ideology and its aspects on employee welfare in the sample under the research?

2.2 Research Goals

The main goal of this research is to develop a scientific and accurate understanding of the nature of the variables researched and the interrelationships among them in the organizational field environment. This will be achieved via the following objectives:

- a. Building and framing an intellectual and conceptual framework that is comprehensive enough to clarify the ideas and dimensions related to ethical ideology and employee welfare and offer a solid scientific formulation that contributes to enriching Iraqi academic libraries with a modern explanatory model.
- b. To identify the levels of awareness and application of the aspects of ethical ideology (idealism and relativism) and the level of employee welfare in its three dimensions (workplace, psychological, and life) among the employees investigated in the Directorate of Education in Karbala.
- c. To test and verify the nature of the association and the strength of the statistically significant effect of ethical ideology and its dimensions on employee welfare in the company under study.
- d. To reach a set of scientific results and practical procedural recommendations that enable administrative leadership to improve the general welfare of its staff based on sound ethical grounds.

2.3. Importance of the Study

Theoretically, the present study provides an intellectual and cognitive framework that relates the variables of (ethical ideology) and (employee welfare). This will add a sound scientific contribution to administrative literature and Iraqi academic libraries by examining the interaction between the dimensions of these two variables, thus opening new horizons for future researchers studying behavioral and ethical variables in the organizational environment.

The practical value is clear in providing diagnostic indicators and field recommendations applicable to administrative officials in the Directorate of Education Karbala. They assist in the use of ethical principles and staff philosophy to enhance working conditions and ease the everyday demands, therefore increasing levels of job and psychological welfare to maintain the stability of human capital and develop its performance.

2.4 Sample model

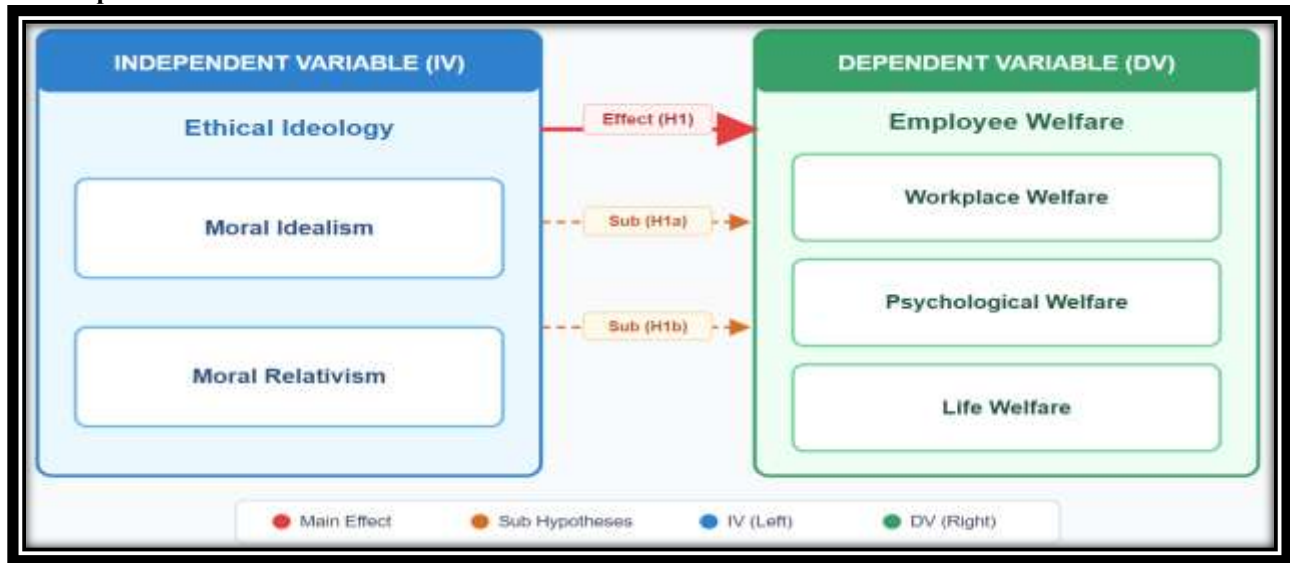


Figure (1) Research Hypothesis Model

Source: Prepared by the researchers based on scientific literature.

2.5 Research Hypotheses

The hypotheses can be formulated based on the title as follows:

H1	The moral idealism dimension has a statistically significant effect on employee welfare in the organization under study.
H2	The moral relativism dimension has a statistically significant effect of the moral relativism dimension on employee welfare in the organization under study.

Main Hypothesis (First): There is a statistically significant effect of ethical ideology, in its various dimensions, on employee welfare. The following hypotheses branch out from this main hypothesis.

H1 The moral idealism dimension has a statistically significant effect on employee welfare in the organization under study.

H2 The moral relativism dimension has a statistically significant effect of the moral relativism dimension on employee welfare in the organization under study.

2.6 Demographic Characteristics of the Research Sample and the Response Rate

The research community in this study is all employees in the Karbala Education Directorate, whose number is (1000) employees. The research was conducted, and the hypotheses were tested in the Karbala Education Directorate, as it is one of the vital service and educational institutions in the governorate and has a distinguished group of highly experienced and competent administrative and educational staff. This makes it a realistic field and a rich source of specific data relevant to the study variables.

The researcher utilized the purposive random sampling method and targeted employees who possess Bachelor's, Higher Diploma, Master's, and Doctorate degrees. The purposeful selection is justified by the fact that the respondents are of adequate intellectual and cognitive maturity to cope with the specific concepts of the questionnaire and to judge the dimensions of ethical ideology and employee welfare appropriately. According to scientifically accepted sample size tables (Krejcie & Morgan, 1970), a minimum of 278 respondents is required for a representative sample of 1000 individuals.

To meet this quorum and to avoid missing questions, the researcher distributed 290 questionnaires to the selected sample. In all, 285 questionnaires were returned. Following statistical analysis, 7 surveys were invalid and thus

excluded. Thus, the total number of valid questionnaires for final statistical analysis was 278, giving a response rate of 95.86%. This high proportion accurately and reliably reflects the research population.

The study sample was characterized to a greater or lesser extent in personal or professional characteristics, including the variables: age, gender, educational qualification, years of service, and job position, according to the five-point Likert scale, as shown in the following table:

Table (1) Personal Information of Study Sample

Classification Variable	Classification Variable Divisions	Repetition (F)	Percentage (%)
Educational Qualification	Bachelor's/Higher Diploma	216	77.7%
	Master's	46	16.5%
	Doctorate	16	5.8%
Gender	Male	159	57.2%
	Female	119	42.8%
Years of Employment	Under 5 years	27	9.7%
	5-10 years	63	22.7%
	11-15 years	84	30.2%
	16-20 years	58	20.9%
	Over 20 years	46	16.5%
Age Group (in years)	25-30	31	11.2%
	31-35	55	19.8%
	36-40	69	24.8%
	41-45	51	18.3%
	46-50	37	13.3%
	51-55	23	8.3%
	56 and above	12	4.3%
Job Title	Department Manager/Assistant	21	7.6%
	Division/Unit Head	40	14.4%
	Employee/Administrator	217	78.1%

Source: Researchers based on a questionnaire and field research.

As shown in Table (1), the demographic and functional features of the research sample of the (278) respondents from the personnel working in the Karbala Directorate of Education are presented. You may evaluate the data as follows:

- **Educational Qualification:** The results show that the largest share of sample members came from the category of holders of Bachelor's/Higher Diploma degrees, as their proportion reached (77.7%), equating to (216) respondents. This was followed by the group of holders of a Master's degree at (16.5%), amounting to (46) respondents. The percentage of holders of a PhD was (5.8%), amounting to only (16) respondents. This distribution reflects the administrative and executive nature of the work environment in the Directorate. It suggests that the sample has a sufficient educational and cultural level to support understanding and accurate responses to the questionnaire items.
- **Gender:** The sample had a balanced gender distribution, with a slight advantage for males (57.2% or 159 respondents) over females (42.8% or 119 respondents). This is because of the work environment requires a balance of both genders, allowing the study to capture complete and unbiased viewpoints on the factors of ethical ideology and employee welfare.
- **Years of Service:** Respondents had diverse field experience. The largest group was the 11-15 year age group (30.2% or 84 responses), followed by the 5-10 year age group (22.7%) and the 16-20 year age group (20.9%). The group with more than 20 years of experience was 16.5%, and finally, the group with less than 5 years of experience was 9.7%. This shows that most of the sample (more than 90%) has more than five years of professional experience, which strengthens their depth of field experience and their knowledge of ethical ideals and the conditions that influence their mental and professional welfare.
- **Age Group:** The age distribution indicated the 36-40 age group was the most frequent at 24.8% (69 respondents), followed by the 31-35 age group at 19.8%, then the 41-45 age group at 18.3%. The other percentages were accounted for in the following age groups: 46-50 years (13.3%), 25-30 years (11.2%), 51-55 years (8.3%), and 56 and older (4.3%). These results confirm the dominance of the youth and middle-aged (between 31 and 45 years of age) demographic, a grouping marked by activity, vigor, employment stability, and intellectual maturity.
- **Job Position:** The results indicated that the (employee/administrator) category represented the majority of the sample, at (78.1%) with (217) respondents, followed by (division and unit heads) at (14.4%) with (40) respondents, and then (department managers and assistants) at (7.6%) with (21) respondents. This distribution is consistent with

the hierarchical nature of government organizations, making the results comprehensive and providing a reasonable approximation across all levels of the employment hierarchy.

2.7 Validity and Reliability of the Study Instrument and Normal Distribution:

Reliability refers to the consistency or stability of the study instrument (questionnaire) in producing the same results when the same sample is tested under identical settings. The statistical dependability coefficient might vary from zero to one. The closer the value is to one, the higher the reliability and precision of the instrument. The Cronbach's alpha coefficient was utilized to examine the reliability of the present research scale (including the variables of ethical ideology and employee welfare). In management and behavioral research, Nunnally & Bernstein (1994) consider a value of 0.70 or greater to be statistically acceptable. Self-validity (or credibility) refers to the ability of the scale items to really measure the dimensions and concepts that they were supposed to measure. It is statistically calculated by the square root of Cronbach's alpha coefficient. A value higher than 70% or 0.70 is regarded as statistically acceptable. The data were checked for normality using skewness and kurtosis to determine which statistical tests (parametric or non-parametric) were appropriate for processing the data of the present research. There is no absolute rule that firmly determines upper and lower bounds for values, as observed by Wegner (2013: 83). Skewness and sphericity, and based on the accepted formula and the common standard. The values of skewness and sphericity that fall within the range of (-1.96) to (+1.96) are a sufficient indicator of normality in the research data, and thus justify the use of parametric statistical methods in analyzing the results.

Table (2) Research scale Validity, Reliability, and Normality

Dimensions and Variables	Number of paragraphs	Stability coefficient (Alpha)	Self-validity coefficient	(Skewness)	Std. Error	Z-score	(Kurtosis)	Std. Error	Z-score
Ethical Idealism	7	0.842	0.918	-0.216	0.148	-1.459	-0.187	0.294	-0.634
Ethical Relativism	7	0.818	0.904	0.185	0.148	1.250	-0.249	0.294	-0.849
Ethical Ideology (Independent Variable)	14	0.830	0.911	-0.016	0.148	-0.105	-0.218	0.294	-0.739
Workplace Welfare	6	0.837	0.915	-0.276	0.148	-1.865	0.218	0.294	0.741
Psychological Welfare	6	0.857	0.926	-0.165	0.148	-1.115	-0.174	0.294	-0.379
Life Welfare	6	0.823	0.907	0.166	0.148	1.122	0.257	0.294	0.874
Employee Welfare (Dependent Variable)	18	0.839	0.916	-0.092	0.148	-0.619	0.100	0.294	0.343

"Source: compiled by investigators relying on the SPSS v.26 outputs".

Table (2) demonstrates that the values of Cronbach's alpha coefficient indicated a high degree of internal consistency for the study scale, ranging from 0.818 for the dimension of moral relativism to 0.857 for the psychological welfare dimension. The total measures obtained a value of 0.830 for the independent variable (ethical ideology) with 14 items and a value of 0.839 for the dependent variable (employee welfare) with 18 items. All values exceed the statistically permissible minimum of 0.70 based on Nunnally & Bernstein (1994), supporting the stability and validity of the research instrument.

The findings reveal high levels of self-validity for all variables and dimensions studied, computed using the root-mean-square reliability coefficient. The values for the sub-dimensions ranged from a low of 0.904 for the moral relativism dimension to a maximum of 0.926 for the psychological welfare dimension. The self-validity value is 0.911 for the ethical ideology variable and 0.916 for the employee welfare variable. These are exceptionally high values, indicating the construct strength of the scale and the ability of its items to measure what they were created to measure.

The findings of statistical analysis indicate that the calculated Z-score values for both skewness and kurtosis ranged from -1.865 to +1.250 for skewness and from -0.847 to +0.874 for kurtosis for all dimensions and overall variables. All these values are in the normal range of the accepted standard range of ± 1.96 at a significance level of 0.05 (Wegner, 2013), which demonstrates the normality of the data of the study and its eligibility for advanced statistical analysis.

3. Theoretical Aspect

3.1 Ethical Ideology

3.1.1 The Concept Arries (2021: 4) defines it as an integrated system of beliefs and values upon which human resources base their analysis and moral decisions. It is a cognitive and behavioral guide to ethical responses, oriented toward maximizing good outcomes and addressing risks.

Tsitseli (2023: 3) defines it as a set of common values and ideas that provide the intellectual and moral foundation of a community in an economic and social system. It is designed to foster strong interpersonal relationships and to lessen the uncertainties that lead to anxiety and confusion of thought.

Chan et al. (2024: 866) described it as an essential moral philosophy that might guide judgment on ethical concerns. This philosophy is based on one's point of view, circumstances, and scientific evidence.

3.1.2 Importance: Buye (2021: 6) stated that ethical ideology is the most important tool for controlling human resources in terms of individual and social behavior in accordance with laws and procedures, as well as the mechanism for their adoption based on ethical principles (justice, equality, sustainable development, and human rights) as a basis for the process of decision-making within an ethical ideological framework based on societal values.

According to Roszk et al. (2021: 8), it has an important function in the development and shaping of behaviors and attitudes by strengthening them with ethical mechanisms that allow the adoption of effective organizational decisions and actions.

It aids in understanding of social dynamics and human resource behavior through the intellectual interaction of ethical ideology. It thus helps build a key relationship in establishing a vision for organizational contexts and constructing human and ethical standards (Resende et al., 2024: 7154).

3.1.3. Dimensions. Dominations. The dimensions used from the paradigm of Donelson (R., 2008) are (moral idealism and moral relativism), which we shall examine below:

a. Moral Idealism. According to Suasthi (2018: 27), it involves acting based on ethical principles that produce positive and proper results, and on the moral sense of the human resource toward humanitarian situations. It takes a good attitude, not a negative approach that causes harm.

Idealism is a principle that contains the enormous potential that Abou Hashi (2019: 9) indicated helps in the decision-making process that meets the criteria of all parties. It strengthens justice and equality in organizations.

b. Moral Relativism: Bajrami (2019: 113) argued that this idea is used to defend biased practices, and it is an indicator of personality variance. People build their moral beliefs through internal interactions shaped by their cultural and social upbringing at work or through socializing. Tenhave (2021: 4) believes that human resources can operate with moral relativism, adjusting to ambiguity and accepting ethical shifts. This is because they do not stick strictly to ethical ideals and are therefore flexible in dealing with change.

There is a sense that morality is relative to different societies, more of a reflection of cultural and social conventions than a dedication to strict ethical standards and practices (Muslih, 2023: 91).

3.2 Employee welfare:

3.2.1 The concept of Employee welfare is defined by Zhao & Lin (2020: 294) define employee welfare as a set of pleasant sentiments, a sense of happiness at work, and self-actualization through meeting needs and desires. It is the state where individuals operate efficiently and can maintain this efficiency, which is shown by great physical and intellectual performance, according to Duan et al. (2019: 18). It was characterized by Jaskeviciute et al. (2021:119) as a type of welfare and physical and familial comfort, devoid of hindrances that obstruct performance.

3.2.2 Importance: Stankeviciene et al. (2022:989) emphasize the importance of employee welfare, stating that it is the basic thing that helps employees to execute their work effectively. It also addresses the environmental circumstances in which employees operate, helping the firm achieve its immediate and future goals.

Duan et al. (2020:427) note that employee welfare is a foundation for creating fun at work and pleasant interactions with colleagues and supervisors, which in turn creates job satisfaction and hence job loyalty. A significant factor for competitive advantage that enterprises count on is the expertise, talents, and loyalty of their employees, which increases organizational performance and achieves excellence and leadership (Gelencser et al. 2023: 3).

3.2.3 Dimensions: The dimensions used were those described by Zheng et al. (2015) and Khoreva & Whechtler (2018): psychological welfare, workplace welfare, and life welfare. These are discussed below:

- Psychological Welfare: According to Kim et al. (2021: 3), it is described as the happiness of employees in reaching goals, fulfilling wishes, being fulfilled, having the ability to accomplish, being happy, and having self-worth. It is defined as coming from the development of real capabilities, potential, and personal experiences in a conducive work environment and pleasant connections with colleagues and superiors (Morales-Rodrigues et al., 2020: 4).
- Workplace Welfare: Khairunisa & Muefi (2022:12) defined it as the feeling of satisfaction directed toward employees' self-actualization, their contribution to effective work performance, their active participation in society, and the provision of appropriate conditions to support employee performance and the achievement of organizational goals.
- Putra et al. (2024) stated that creating an organizational environment free from physical and psychological stress, conducive to happiness and contentment, and generating a feeling of welfare at work promotes employees' physical and mental health.
- Life Welfare is employees' feelings and emotions about their work lives and their mutual feelings with colleagues that create a positive work environment (Wang et al., 2021:4). Kundi et al.2020: 739) It is a cognitive assessment and evaluation that considers the life requirements of the workers, as well as the good emotion away from the negatives, which develops for them a welfare of work life and family life.

4. The Practical Part

4.1 Descriptive Statistics / Description, Diagnosis and Analysis of Research Variables

The researchers sought to identify the current status, level, and importance of the research variables (ethical ideology and employee welfare) in the Karbala Education Directorate, based on the responses of 278 respondents from the sample. The descriptive analysis used the arithmetic mean of responses for each dimension item, the standard deviation, and the relative relevance (weight) and percentage of each questionnaire item, at both the sub-item level and the level of the main dimensions and variables analyzed.

For this purpose, the opinions of the research sample were measured using a five-point Likert scale. The responses were on a scale of 1 to 5. There were five levels of interpretation of the arithmetic means (Table 3).

Table 3: Likert ratings and level of availability

Resolution gradations	Arithmetic medians	Degree of approval	Relative importance
I don't quite agree	1.80-1	very low	Interest as low as 20%
I do not agree	2.60-1.81	Low	From low to medium (40%-21%)
Neutral	3.40-2.61	Moderate	Average importance (60%-41%)
I agree	4.20-3.41	Available	Intermediate to high interest (80%-61%)
Agree	5.00-4.21	Very available	High importance greater than 80%
Hypothetical mean = $15/5 = (3)$		Class length = $5 - 1 = 4/5 = 0.80$	

Source: Akadiri O. P. (2011), *Development of Multi-Criteria Approach for the Wolver Hampton, U. K.*

The researchers used the coefficient of variation (CV) to organize the scale items and dimensions because it is the most precise measurement of homogeneity. The lower the value, the more homogeneous and stable the reactions of the samples are (Rawaa et al., 2017). The standard deviation measures the degree of dispersion of the answers; values lower than 1.00 imply a low level of dispersion and statistically acceptable homogeneity. Relative importance (relative weight) is the level of attention and priority respondents give to each item and dimension in the Karbala Education Directorate.

4.1.1 Descriptive Analysis of the Ethical ideology Variable

The findings of the statistical analysis showed that the independent variable (ethical ideology) received a high level of agreement among the sample members, with a total mean of 3.70, a standard deviation of 0.742, and an overall agreement level of 73.9%. The variable also had a total coefficient of variation of 20.3%, indicating good homogeneity and stability in the surveyed staff's perceptions of the importance of ethical ideology across its dimensions in the work environment.

The dimensions were sorted by the lowest coefficient of variation as follows:

• **First Dimension:** Ethical Idealism (First Level). The dimension of “Ethical Idealism” was placed first in the relative importance among the dimensions of the independent variable with the lowest coefficient of variation of (19.6%), an overall mean of (3.72), a standard deviation of (0.729), and a level of agreement of (74.3%). The first item, “The ethical concept includes cooperation with everyone,” ranked first, with a mean of (4.24), a standard deviation of (0.616), and a coefficient of variation of (14.5%). The last item, “Avoiding decisions that cause harm to others,” ranked last, with a mean of (3.18), a standard deviation of (0.737), and a coefficient of variation of (23.2%). This is a sign of a strong commitment to positive ethical beliefs and principles and the avoidance of harmful activities.

• **Second Dimension:** Moral Relativism (Second Rank)

The dimension of moral relativism ranked second among the dimensions of the variable, with a coefficient of variation of 20.9%, a mean score of 3.68, a standard deviation of 0.755, and a high level of agreement of 73.5%. The statement “The environment influences moral principles” was rated most strongly, with a mean of 4.14, a standard deviation of 0.675, and a coefficient of variation of 16.3%. The statement “Ethics cannot be generalized as cultures influence them” ranked last, with a mean of 3.13, a standard deviation of 0.842, and a coefficient of variation of 26.9%. The results show the cognitive flexibility of the sample and its ability to adjust to diverse environmental and contextual demands.

Table (3) Arithmetic means, standard deviations, coefficient of variation, and ranking items and dimensions of ethical ideology (N=278)

Paragraphs	Mean	Std. Deviation	Level of agreement (%)	C.V (%)	Order
First dimension: Moral idealism					
Never cause harm to colleagues under any circumstances.	4.13	0.685	82.6%	16.6%	2
Achieving goals should be positive and based on ethical actions.	3.88	0.743	77.6%	19.1%	4
Work with good moral intentions.	3.21	0.813	64.2%	25.3%	7
The ethical concept includes cooperation with everyone.	4.24	0.616	84.8%	14.5%	1
Causing harm is not ethical.	3.35	0.794	67.0%	23.7%	6
Good intentions lead to positive action.	4.03	0.717	80.6%	17.8%	3
Avoid making decisions that harm others.	3.18	0.737	63.6%	23.2%	5
General average	3.72	0.729	74.3%	19.6%	-
The second dimension: Moral relativism					
Ethical principles are not perfect; they vary.	3.29	0.825	65.8%	25.1%	6
The right outcome in one situation may differ in another.	3.92	0.714	78.4%	18.2%	3
Ethics cannot be universalized because cultures influence them.	3.13	0.842	62.6%	26.9%	7
The environment influences ethical principles.	4.14	0.675	82.8%	16.3%	1
There is no fixed standard for ethical principles.	3.86	0.752	77.2%	19.5%	4
Right and wrong are both possible and relative.	3.32	0.783	66.4%	23.6%	5
Right and wrong are both possible and relative.	4.07	0.692	81.4%	17.0%	2
General average	3.68	0.755	73.5%	20.9%	-
Total ethical ideology (independent variable)					
ethical ideology	3.70	0.742	73.9%	20.3%	-

“Source: compiled by investigators relying on the SPSS v.26 outputs”.

4.1.2 Descriptive Analysis of the Variable Employee welfare

The statistical analysis provided in the table indicated that the dependent variable (employee welfare) was reached at a high level of agreement among the sample, with a total mean of (3.68), a standard deviation of (0.744), and an overall agreement level of (73.6%). Moreover, the variable showed an overall coefficient of variation of (20.2%), indicating clear homogeneity and stability in the surveyed staff's perceptions of the adopted wellbeing level and its dimensions in the work environment.

The dimensions were ordered according to the lowest coefficient of variation as follows:

• **First Dimension:** Workplace Wellbeing (First Rank)

The (workplace welfare) dimension ranked first in relative importance among the dimensions of the dependent variable, with the lowest coefficient of variation of (19.6%), a total mean of (3.72), a standard deviation of (0.731), and an agreement level of (74.4%). The statement “I take full responsibility” ranked first with a mean of 4.23, a standard deviation of 0.614, and a coefficient of variation of 14.5%. Conversely, the statement “I work to create suitable conditions for colleagues” ranked last with a mean of 3.29, a standard deviation of 0.817, and a coefficient of variation of 24.8%. This points to a high sense of responsibility and a significant satisfaction with the nature of the achievement and the work allocated.

• **The Second Dimension:** Welfare (second position)

The second rank was given to the dimension “Welfare” of the variable, with a coefficient of variation of 20.4%, a total arithmetic mean of 3.66, a standard deviation of 0.747, and a high level of agreement of 73.3%. In this dimension, the statement “I am working toward achieving my goals in my life journey” received the highest score, with a mean of 4.18, a standard deviation of 0.622, and a coefficient of variation of 14.9%. In contrast, the statement “My life is free from negativity and difficulties” ranked last, with a mean of 3.16, a standard deviation of 0.845, and a coefficient of variation of 26.7%. The results of the study confirm that individuals continuously strive to actualize themselves and pursue their goals despite life's difficulties.

• **The Third Dimension:** Psychological Welfare (Third Position)

The psychological welfare dimension was rated third of the dimensions of the variable, with a coefficient of variation of 20.6%, a total mean of 3.66, a standard deviation of 0.753, and a level of agreement of 73.2%. The item “My daily work is good” ranked first with a mean of 4.13, a standard deviation of 0.647, and a coefficient of variation of 15.7%. The item “I communicate transparently with my colleagues for more information” ranked last with a mean of 3.26, a standard deviation of 0.826, and a coefficient of variation of 25.3%. The findings suggest that employees have psychological stability and consistency in their daily work performance.

Table (4) Arithmetic Means, Standard Deviations, Coefficient of Variation and Ranking of Items and Dimensions of Employees' Welfare (N = 278)

Paragraphs	Mean	Std. Deviation	Level of agreement (%)	C.V (%)	Order
First dimension: Welfare					
I feel positive in my life.	4.09	0.683	81.8%	16.7%	2
I am working towards achieving my goals in my life journey.	4.18	0.622	83.6%	14.9%	1
I am happy most of the time.	3.26	0.815	65.2%	25.0%	5
I find my professional and family life to be good.	3.96	0.719	79.2%	18.2%	3
My life is free from negativity and difficulties.	3.16	0.845	63.2%	26.7%	6
My life's needs are met in my current job.	3.33	0.798	66.6%	24.0%	4
(General average)	3.66	0.747	73.3%	20.4%	-
The second dimension: Workplace welfare					
I take full responsibility.	4.23	0.614	84.6%	14.5%	1
I am happy in my current job.	3.37	0.786	67.4%	23.3%	5
I am working on innovating my work methods.	4.07	0.696	81.4%	17.1%	2
I feel satisfied with my work.	3.99	0.724	79.8%	18.1%	3
I strive to create a positive working environment for my colleagues.	3.29	0.817	65.8%	24.8%	6
I find joy in achieving my organization's goals.	3.37	0.746	67.4%	22.1%	4
(General average)	3.72	0.731	74.4%	19.6%	-
Third dimension: Psychological welfare					
I feel comfortable achieving my goals.	3.97	0.709	79.4%	17.9%	2
My daily work is going well.	4.13	0.647	82.6%	15.7%	1
I feel satisfied with myself.	3.26	0.807	65.2%	24.8%	5
I actively share my time with my colleagues.	3.34	0.786	66.8%	23.5%	4
I am flexible in my work to improve efficiency.	4.02	0.734	80.4%	18.3%	3

I communicate transparently with my colleagues for further information.	3.26	0.826	65.2%	25.3%	6
(General average)	3.66	0.753	73.2%	20.6%	-
Total employee welfare (dependent variable)					
employee welfare	3.68	0.744	73.6%	20.2%	-

"Source: compiled by investigators relying on the SPSS v.26 outputs".

4.2 Testing Correlation Relationships

The present part of the research is dedicated to the statistical analysis and establishment of correlation links between the researched variables. This is a procedural step and a requirement of testing the major and sub-hypotheses of effect using the structural equation method. This introductory chapter seeks to investigate the nature, direction, and magnitude of the interaction between the independent variable (ethical ideology) and its two dimensions (moral idealism and moral relativism), and the dependent variable (employee welfare) and its numerous dimensions. Determining the degree of statistically significant correlation between these variables is a preliminary and necessary indicator for confirming the robustness of the conceptual framework of the proposed model's conceptual framework and its preparedness to evaluate direct impacts later.

Table (5) Correlation Matrix of the Research Variables

employee welfare	Dimensions of Ethical ideology	The value of the correlation coefficient and the level of significance	
	Moral idealism	R	.6020
		Sig.	0.000
	Moral relativism	R	0.512
		Sig.	0.000
	Ethical ideology	R	0.648
		Sig.	0.000

"Source: compiled by investigators relying on the SPSS v.26 outputs".

The following table clearly indicates the relationship between the two research variables, ethical ideology (independent variable) and its two aspects, moral idealism and moral relativism, and the dependent variable, employee welfare. The association was direct and positive, meaning that improved awareness of employees in the examined directorate boosts their welfare through their behavior, which is mirrored in the general welfare of employees across the organization.

4.3 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis, using structural equation modeling with AMOS v.26, was applied to statistically test the construct validity of the research scale and its dimensions and items. The researcher adopted this procedure to check two basic issues: first, the ability of the factor distributions for the items and dimensions to represent the research variables. Second, the degree of agreement between the data obtained from the sample group of the field and the assumed structural model of the scale. The verification method is based on the acceptance of the items, whose factorial weights are above the permitted saturation ratio (0.40), in addition to meeting the structural model conformity quality indicators according to the criteria in the table below:

Table 6: Indicators and rule of goodness of fit for structural modeling equation

	Indicators	Match quality rule
-1	The ratio between the values of X2 and the degrees of freedom df	≤ 3
-2	Goodness of Fit Index (GFI)	≥ 0.90
-3	Comparative Fit Index (CFI)	≥ 0.95
-4	Root Mean Square Error of Approximation (RMSEA)	< 0.05 or 0.08

Source: Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017) "A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)," 2nd Ed. Thousand Oaks, CA: Sage, p.289.

Table (7) indicates that all factor estimates for the study variables (ethical ideology and employee welfare) were high and above the statistically admissible level of 0.40, as per Costello & Osborne (2005). The estimates of ethical ideology items were from 0.492 to 0.881 and employee welfare items from 0.496 to 0.930, respectively. In addition, all critical ratio (C.R.) values were statistically significant at $p < 0.001$, demonstrating the construct validity and stability of the items for assessing the indicated dimensions. The results confirm the validity of the obtained field data against the anticipated structural model, indicating the multidimensional structure of the study variables and their readiness for advanced statistical analysis.

Table (7) Confirmatory factor analysis of study variables

Items	Path	The dimension	Estimate	S.E.	C.R.	P
Confirmatory factor analysis of ethical ideology						
X11	<---	Moral idealism	.835	.062	20.662	.835
X12	<---		.853	.069	21.351	.853
X13	<---		.881	.053	22.532	.881
X14	<---		.819			.819
X15	<---		.854	.055	21.401	.854
X16	<---		.516	.082	10.874	.516
X17	<---		.492	.061	10.291	.492
X21	<---	Moral relativism	.809	.055	18.710	.809
X22	<---		.828			.828
X23	<---		.844	.057	19.835	.844
X24	<---		.669	.052	14.515	.669
X25	<---		.676	.051	14.696	.676
X26	<---		.526	.064	10.844	.526
X27	<---		.520	.064	10.703	.520
Confirmatory factor analysis of employee welfare						
Y11	<---	Workplace Welfare	.615			.615
Y12	<---		.702	.072	13.523	.702
Y13	<---		.847	.069	16.208	.847
Y14	<---		.930	.075	17.674	.930
Y15	<---		.807	.072	15.469	.807
Y16	<---		.496	.098	9.621	.496
Y21	<---	Psychological Welfare	.659			.659
Y22	<---		.647	.071	11.504	.647
Y23	<---		.803	.100	13.758	.803
Y24	<---		.790	.085	13.575	.790
Y25	<---		.693	.105	12.194	.693
Y26	<---		.555	.070	10.044	.555
Y31	<---	Life Welfare	.697			.697
Y32	<---		.804	.093	15.009	.804
Y33	<---		.902	.101	16.545	.902
Y34	<---		.667	.120	12.584	.667
Y35	<---		.615	.114	11.644	.615
Y36	<---		.536	.061	10.202	.536

"Source: compiled by investigators relying on the AMOS v.26 outputs".

4.4 The Impact Hypothesis

The outcomes of the impact hypothesis tests will be discussed in the next section. They will be carried out sequentially:

4.4.1. Main Hypothesis 1 (H1): This hypothesis assumes that there is a statistically significant impact association between ethical ideology and employee welfare. To test this hypothesis, Structural Equation Modeling was used to examine the path-effect relationship using AMOS v.26. Hence, employee welfare is a real function of ethical ideology. This means that any change in the level of ethical ideology will result in an improvement of employee welfare. The results of the fit quality test for the structural model are provided in Table (8), which indicate an excellent fit and good acceptance criteria:

- The ratio of chi-squared to degrees of freedom (CMIN/DF) was calculated to be 3.169, which is less than the maximum acceptable value of 5.
- The goodness-of-fit index (GFI) was 1.00

- Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Incremental Fit Index (IFI) were 0.943, 0.936, and 0.949, respectively (all > 0.90).
- The Root Mean Squared Rounding Error Index (RMSEA) was 0.064, less than 0.08.

Table (8): Quality indicators of conformity of the approved structural model and comparison with the acceptance criteria

Statistical Indicator	The basis and value of acceptance and rejection	The extracted value of the model	Decision of conformity and acceptance
Chi-squared ratio to degrees of freedom (CMIN/DF)	< 5	3.169	Accepted
Quality of Fit Index (GFI)	≥ 0.90	1.00	Accepted
Comparative Fit Index (CFI)	≥ 0.90	0.943	Accepted
Tucker-Lewis Index (TLI)	≥ 0.90	0.936	Accepted
Incremental Fit Index (IFI)	≥ 0.90	0.949	Accepted
Root Mean Squared Rounding Error (RMSEA)	<0.08	0.064	Accepted
Item Saturation Rate (Factor Weights)	≥ 0.40	أكبر من 0.40	Accepted

Source: Prepared by the researchers based on the outputs of the (AMOS v.26) program shown in the form of processing and compared with the standards of (Hair et al., 2010).

The findings of the regression path analysis presented in Table (9) indicate that:

- The effect weight (non-standardized regression coefficient) was directly proportional, and it was (0.522), which means that with every rise in the unit of ethical ideology, employee welfare increases by (0.522).
- The variance in employee welfare is explained by ethical ideology (42%), and the remaining 58% is explained by other variables not addressed in this study.
- The relationship of the effect is statistically significant, as it is based on the computed value of t (t = 5.787), which is higher than the critical value of (1.96) at a significance level of (0.05).
- This finding is supported by the value of the significance level (Sig.), which was (0.000), which is substantially less than the assumed significance level of (0.05). Based on these numerical data, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Thus, the greater the extent to which workers comprehend and apply the ideas of ethical ideology, the more actively and directly this will contribute to improving workers' welfare.

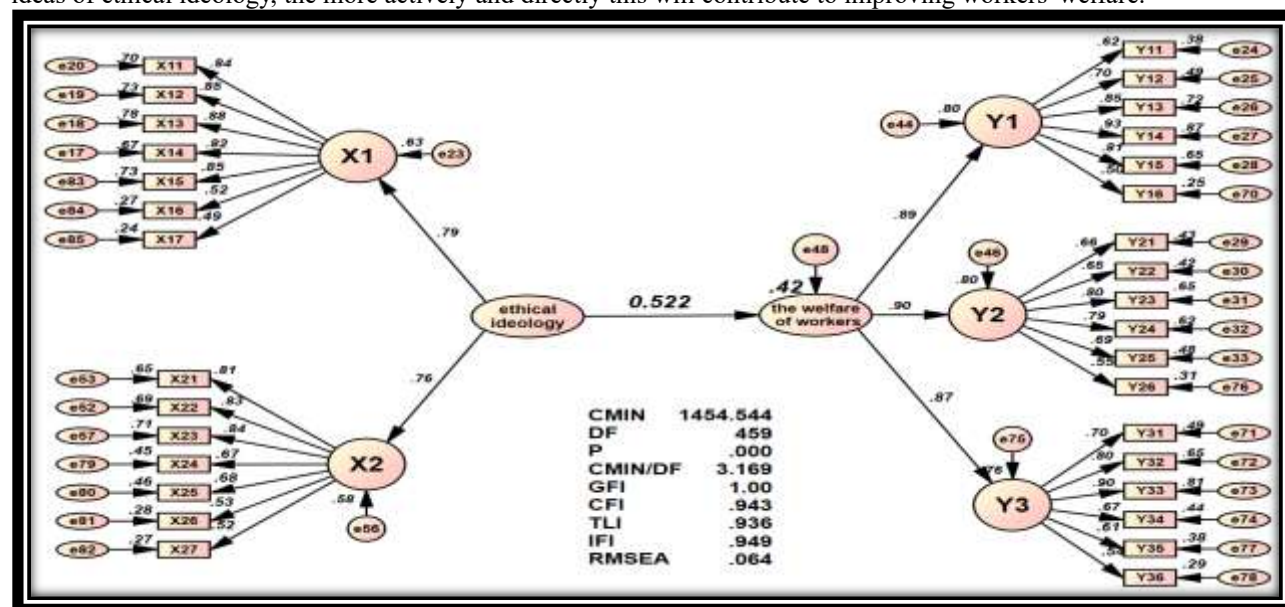


Figure (2) shows the results of the regression between the independent variable, ethical ideology, and the dependent variable, employee welfare.

Table (9) Regression between the independent variable, ethical ideology, and the dependent variable, employee welfare

The path			impact	standard error	(t)	R2	Sig..
ethical ideology	<---	employee welfare	0.522	0.091	5.787	42%	0.000
Tabular critical value			1.96				

"Source: compiled by investigators relying on the AMOS v.26 outputs".

The second key hypothesis was statistically tested using AMOS v.26 software through the sub-impact pathways utilizing structural equation modeling (SEM). The research showed that the sub-model was structurally efficient. The standard chi-square ratio (CMIN/DF) reached 3.030, and the goodness of fit index (GFI) obtained the optimal value of 1.000.

The comparative fit index (CFI), Tucker-Lewis index (TLI), and incremental fit index (IFI) remained at high values of 0.943, 0.948, and 0.944, respectively, and the root mean square error of approximation (RMSEA) was 0.064. Together, these results confirm the model's accuracy and its strong ability to reflect field data from the opinions of workers polled in the Karbala Education Directorate. The following describes the testing of the sub-hypothesis result:

- Testing of the first sub-hypothesis: This says that "there is a statistically significant effect of the ethical idealism dimension on employee welfare. The findings of Table (10) reveal that the standard regression weight for this path was (beta = 0.325), the computed critical ratio (C.R = 4.769), and is greater than the needed critical value (1.96) and at the level of significance ($p < 0.001$), as demonstrated by the symbol (***). It demonstrates that the increase in the level of the ethical idealism of administrative staff causes a direct and proportional increase in employee welfare by (32.5%), which confirms the first sub-hypothesis. This suggests that employees' commitment to ethical ideals and non-harming others increases their sense of happiness and their psychological and professional welfare.
- Testing of the second sub-hypothesis: "there is a statistically significant impact of the ethical relativism dimension on employee welfare". The association between ethical relativism and employee welfare had a standardized regression weight of (beta = 0.187) and a critical ratio of (C.R = 4.543) at a significance level of ($p < 0.001$) denoted by (***). This finding suggests that employee flexibility and adaptation, together with ethical relativism, increase employee welfare by 18.7%. Therefore, the second sub-hypothesis is accepted, which is that flexibility in dealing with and adjusting to different circumstances in the work environment of the Karbala Education Directorate helps to lower work stress and boost levels of welfare.
- Results revealed that the general coefficient of determination for the dimensions was ($R^2 = 0.40$), that is, 40.0%. This means that the two dimensions of ethical ideology (idealism and relativism) together account for 40.0% of the variability in improving employee welfare in the Karbala Education Directorate, leaving 60.0% to other factors and variables outside the current model.

Table (10): Analysis of the effect of ethical ideology factors on employee welfare

The path			impact	standard error	(t)	R2	Sig..
Moral idealism	<---	employee welfare	0.325	0.102	4.769	0.40	***
Moral relativism	<---	employee welfare	0.187	0.099	4.543		***

"Source: compiled by investigators relying on the AMOS v.26 outputs".

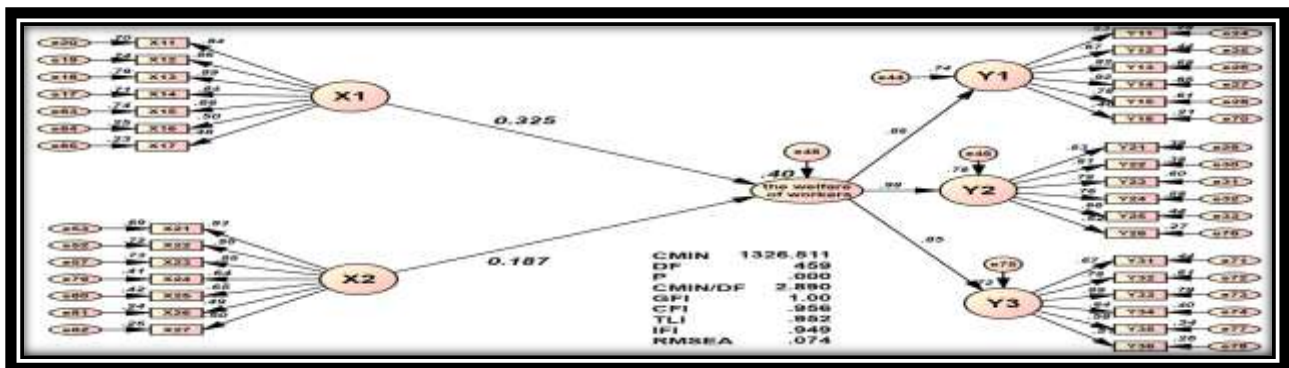


Figure (3) Analysis of the impact of the dimensions of ethical ideology on the welfare of workers

"Source: compiled by investigators relying on the AMOS v.26 outputs".

5. Conclusions and Recommendations

5.1. Conclusions

This chapter contains the most relevant conclusions obtained by the researchers through the interpretation of the applied and statistical results collected from the practical portion of the investigation. The conclusions are as follows:

- The responses of the respondents show a high degree of positive commitment to absolute ethical values in the work environment. The personnel show a strong dedication to serving the public interest, working as a team, and preventing harm to others. This demonstrates a strong value system that influences their day-to-day work conduct and fosters a healthy work environment.
- The sample replies show that employees are aware and intellectually flexible in coping with shifting events. The workforce understands that environmental and cultural factors can affect ethical principles, allowing them to tailor ethical decisions to the peculiarities of each situation without jeopardizing the smooth execution of work.
- The sample group's replies indicate a high level of satisfaction and a strong sense of responsibility for their designated tasks. This helps foster a motivated work atmosphere and allows employees to complete tasks with a positive mindset.
- The replies of the respondents reflect their continuous quest for self-realization and a balance between work and family life, as well as their strong will to overcome life and professional problems and to achieve sustainable stability.
- The study data reveal that employees experience psychological stability and comfort in the performance of their everyday tasks, embracing flexibility and transparency to minimize stress as well as increase efficiency and consistent performance.
- The correlation matrix shows a strong direct association between ethical ideology adherence and employee welfare; employees' implementation of ethical actions and principles directly and meaningfully improves their overall welfare.
- The statistical analysis has proved that ethical ideology is a basic and significant driver in the shaping and enhancement of employee welfare, and the increase of employee awareness and application of ethical principles directly leads to a real positive change of their organizational and psychological welfare.
- The structural path modeling shows that the adoption of exemplary behaviors, promoting cooperation and avoiding harm, has a direct positive impact on improving employee welfare. This demonstrates that

consistent ethical beliefs are a basic pillar for better job satisfaction

- Structural analysis data suggest that flexibility in ethical behavior to meet environmental and situational demands has a beneficial effect on employee welfare. This adaptation relieves stress in the work environment and enables a smooth administrative process within the directorate.

5.2 Recommendations

The Recommendations that have been developed during the study phase and data collection and analysis of prior studies and the visit to the Karbala Education Directorate, including the practical part and review of its outcomes, are as follows:

- The research indicates the need for the Karbala Education Directorate to design and update a comprehensive ethical charter that promotes the ideals of cooperation and general responsibility and helps reduce organizational decisions that may affect administrative staff.
- Investment in the organization of training courses and workshops on management of situations and adaptation to changing surroundings will improve staff capacity to make balanced decisions where ethical standards are combined with practical flexibility.
- The directorate must consistently work toward creating the right spatial and operational settings that encourage employees and mitigate the causes of psychological stress, which will positively affect their performance and satisfaction.
- The directorate should strengthen administrative programs and efforts that promote work-life balance for employees, meet their fundamental needs, and ensure their psychological and personal welfare.
- The leadership of the directorate should be advised to incorporate ethical conduct, transparency, and collaboration among colleagues in the criteria for the yearly performance review, recognizing them as key characteristics for improving the welfare of the institution.
- The research proposes that the Karbala Education Directorate build transparent communication channels between top management and employees to exchange information, reduce job ambiguity, and increase staff members' sense of security and psychological welfare.
- The directorate's administrative heads should adopt ethical leadership styles grounded in good intentions and procedural fairness, as they serve as role models who strengthen positive values among subordinates and enhance institutional performance.
- Creating systematic methods and initiatives to honor distinguished personnel and display their ethical and administrative efforts, since this directly leads to the

formation of a feeling of achievement, self-satisfaction, and a closer link with the organization.

- The investigated department should periodically evaluate the welfare levels of its employees and recognize organizational and spatial pressures and difficulties to address them early.

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Librarians' Perception and Use of Cloud Computing Technology for Library Services Delivery in Academic Libraries North-East Zone, Nigeria

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Abstract. The study investigated librarians' perception and use of cloud computing technologies for library service delivery in academic libraries in the North-East Zone of Nigeria. To achieve this purpose, four research questions and one hypothesis were formulated to guide the study. The study adopted a survey research design. The population comprised 209 librarians from three selected university libraries in North-East Nigeria. Since the population was manageable, a census approach was adopted, and all the 209 librarians were included in the study. The instrument for data collection was a self-developed questionnaire titled Librarians' Perception and Use of Cloud Computing for Library Services (LPUCLS). The instrument was subjected to face validation, and a reliability coefficient of 0.87 was obtained using the Cronbach Alpha statistic. Descriptive statistics of frequency distributions and percentages were used to answer Research Questions One, Two, and Three, while simple linear regression (R-value) was used to answer Research Question Four. The hypothesis was tested using the corresponding p-value at the 0.05 level of significance. The findings revealed that librarians had a positive perception of cloud computing technologies; however, the technologies were utilised to a low extent for library service delivery. The study further revealed that slow internet connectivity, epileptic power supply, inadequate technical skills, data security concerns, irregular staff training and development, and data privacy issues were the major challenges affecting the utilisation of cloud computing technologies. The study also found that librarians' perception has a significant influence on the utilisation of cloud computing technologies in academic libraries in the North-East Zone of Nigeria. The study recommended, among others, that adequate training

programmes should be provided to equip librarians with the knowledge and technical skills required for the effective utilisation of cloud computing technologies in library service delivery.

1. Introduction

The primary function of a university library is to enhance the academic endeavors of the university by delivering valuable services to its users. The university library plays a crucial role in assisting its user community, which includes postgraduate students, research scholars, and faculty members. It does so by procuring a diverse range of library resources that are relevant to the academic curriculum, as well as those associated with extracurricular and co-curricular activities, aligning with the mission and vision of the university libraries. Beyond its central academic support functions, the university library also contributes to research, publication, and the broader engagement activities of the university. With the advent of technological innovations in teaching and learning, the university library faces new challenges of dealing with growing literature and patrons which has necessitated incorporating information and communication Technologies. This involves initiatives like digitization, the creation of institutional repositories, and providing training for library personnel to effectively navigate the technological landscape. These efforts aim to ensure that the library can offer up-to-date and relevant content to its users, thus meeting the evolving needs of the academic community. In the twenty first century, library has to perform many challenging roles in addition to the traditional library services (Fagbola, Smart and Oluwaseun, 2021). Library is dealing with many

advanced operations and their resources are available not only in print format but also many resources procured, processed and disseminated in digital or electronic format in a network or cloud environment.

According to Ahmadi (2024), Cloud computing is a Technology that can provide a service through which one can use applications that are not actually installed on his/her computer, the platform is provided to you as a service by another company and accessed over the Internet. It is a Technology that harnesses the power of the Internet in conjunction with centralized, remote servers to store, distribute, and oversee data. In essence, cloud computing is the Technologies that enables users to access applications, store files, and share information via the Internet. Eneh, Oviri and Ekhortonmwun (2024) looked at cloud computing as the computing software and services that can be accessed via the internet rather than residing on a desktop or internal server. However, cloud computing services differ based on requirements. These requirements are called service models such as the followings:

Software as a Service (SaaS) necessitates libraries to make payments for access to utilize an application. The responsibility for providing data, software, and hardware maintenance to libraries lies with the service provider. Examples of such services include LibGuides, Hotmail, Survey Monkey, and Google Apps.

Platform as a Service (PaaS) offers libraries the tools and a supportive environment to adopt, test, install, and incorporate the cloud-based platform of their choice. However, the management of information systems and internet access is solely handled by the service providers, not the libraries. Examples of PaaS offerings encompass 800APP and Salesforce.

Infrastructure as a Service (IaaS) delivers storage and data-sharing services to libraries through various platforms with flexible options like an on-demand and "pay-as-you-go" model. The range of storage resources includes data centers, bandwidth, private line access, servers, server rooms, firewalls, and storage areas. Notable examples of IaaS services are Amazon's Elastic Compute Cloud (EC2) and Rackspace.

Cloud computing can transform the way information systems are built and services delivered. This offers the library a chance to broaden its influence to users regardless of their location and the time they choose. Practically anyone connected to the internet is likely to be actively involved in some form of cloud computing routinely. Whether individuals are utilizing

services such as Google's Gmail, managing their photo collections on Flickr, or conducting web searches using Bing, they are essentially participating in a cloud-based environment. Mabawonku, Babatope Anyanwu and Akintunde (2024) asserted that cloud computing comes into focus when there is need for increased capacity or added capabilities of computer without investing in new infrastructure, training new personnel, or licensing new software. Users have the ability to connect to database resources through the internet from any location, for as much time as required, without the need to be concerned about the upkeep or oversight of information Technologies infrastructure.

To effectively cope with the overwhelming volume of information available in contemporary society, it's essential to establish a means within educational institutions, such as libraries, for the efficient acquisition, processing, documentation, retrieval, and dissemination of information. Present-day education is increasingly intertwined with Information Technologies (IT), encompassing content delivery, communication, and collaboration. Tertiary institution libraries are experiencing a substantial demand for server, storage, and software resources. Libraries are transitioning their services to cloud computing Technologies, allowing them to provide services seamlessly, regardless of location or time. Within libraries, several potential applications of cloud computing have been identified, including the creation of digital libraries/repositories, data retrieval, web hosting, scholarly content searching, file storage, community building, and library automation. However, the most significant advantage of adopting cloud computing Technologies is that it operates on a utility-like model – users pay only for what they use and can deactivate it when it's no longer needed. The necessity for physically owning a server is therefore eliminated, enabling library communities to harness cloud infrastructure to enhance collaboration and establish a unified, prominent online presence. This approach to computing has not only saved libraries time and money but has also streamlined their operational processes. To date, the main focus of libraries moving into the cloud has been due to the need to disclose their vast collections (Mabawonku, BabatopeAnyanwu and Akintunde ,2024).

Anike and Otubelu (2024) stated that, application of cloud computing technologies in libraries have numerous benefits in terms of maintenance, improving computing performance, increasing storage capacity, cultivating global accessibility of library content and most important reduce the operational cost in IT investment of both hardware and software as well as

computer services. Libraries have experienced several notable advantages from this approach, particularly in areas such as streamlining maintenance, reducing costs associated with investments in IT hardware and software, as well as computer services. Furthermore, libraries have the ability to proactively prevent technological challenges such as computer virus attacks, minimize financial inefficiencies, improve the tracking of library team activities, and safeguard against software crashes and data loss. Academic libraries are increasingly integrating various cloud computing technologies into their daily operations. An exemplary instance of this is the utilization of web cataloguing tools provided by OCLC, where numerous libraries upload their cataloguing records through the shared resources service of OCLC on the web. Google Apps, OCLC Services, Ex-Libris, OSS Labs, LibLime, Polaris, Dropbox and Dura space are the major examples of cloud service in academic libraries (Adegbilero-Iwari, 2017).

Perception refers to the ability of librarians to apprehend, recognize, understand and accept cloud computing Technologies for library services. The perception of cloud computing such as Institutional repository (e.g Dspace, E-prints, Fedora and other open access repository), Web based email (e.g Gmail, Yahoo mail, Hotmail etc.), Social networking (e.g Facebook, Twitter, Whatsapp), Databases (e.g Science Direct, Ebscohost, Hinari, Agora etc.), Library website, WorldCat, Google Apps (Google Drive, Google Doc), Youtube and Dropbox for library services depend largely on the acceptance of these cloud computing. Kumar (2021) indicated that libraries are shifting their services to the cloud from which, with the help of networking and other facilities; they are able to access both their existing applications and documents from anywhere and at any time. This informs that using cloud computing enables librarians to access library resources without geographical restrictions.

Libraries can take advantage of cloud computing to get out of Technologies headache such as hardware breakdown, software problems, staff training deficiency and focus on collection building, patron services and innovation. George (2024) also added that with the adoption of cloud computing Technologies in libraries, data can be easily shared among users, and the need for local storage, maintenance and backups will equally be a thing of the past for libraries. Libraries can also take advantages of cloud computing to build digital libraries/repositories, search library data, host website, search scholarly content, store files, build community power and improve library automation.

Libraries can use Dspace or Fedora to develop and maintain their digital libraries and institutional repositories. Another cloud Technologies worth noting is DuraCloud, which offers a comprehensive solution for building institutional repositories. It comes with a standardized interface and open-source code to facilitate straightforward implementation. Consequently, academic libraries have a range of options at their disposal when it comes to selecting how and where to employ cloud computing services. This flexibility aligns with the specific requirements and goals of the library services they aim to provide to their users. The main focus of libraries moving into the cloud has been a discovery service that is the need to disclose libraries' vast collections on the Web. Mitchell (2010) shared the Z. Smith Reynolds Library's experience of migrating key IT services (e.g., Open URL resolver, journal listing service, instructional guides, ILS, and institutional repository discovery layer) to cloud-based environments. These case studies provide a practical perspective on the implementation of cloud-based solutions within library settings and how to make the most of these technologies in library functions. There are key areas in the library where cloud solutions can be advantageous:

- Acquisitions - Beneficial for librarians who are overseeing increasingly diverse collections.
- Cataloguing - Useful for librarians tasked with describing a continuously expanding body of information and information sources managed by the library.
- Serials - Valuable for librarians striving to maintain control and access to collections distributed across the web.
- Electronic resources - Helpful for librarians who are managing growing collections and ever-evolving lists of vendors.

However, preliminary observation by the researchers shows that the library services at time seems to be automated but at some point, the servers, software and other hardware facilities began to develop problems which requires funding to further maintain it. The researchers through preliminary investigation on librarians perception and use of cloud computing Technologies for library services in academic libraries of north east, Nigeria seems not to frequently use these cloud computing Technologies, such as Institutional repository (e.g Dspace, E-prints, Fedora and other open access repository), Web based email (e.g Gmail, Yahoo mail, Hotmail etc.), Social networking (e.g Facebook, Twitter, Whatsapp), Databases (e.g Science Direct, Ebscohost, Hinari, Agora etc.), Library

website, WorldCat, Google Apps (Google Drive, Google Doc), Youtube and Dropbox for library services. It is against this background that the researcher evaluated the perception of librarians' and use of cloud computing for library services in academic libraries of North East Zone, Nigeria.

1.1 Statement of the Problem

Despite the presence of computerization and the integration of automated library services that result in digitization of resources, academic libraries in Nigeria face a multitude of challenges that hinder their growth. These challenges encompass issues like unreliable internet connections, the technical proficiency of librarians, a shortage of computer-literate staff, inadequate power supply, lack of maintenance and updating practices, and insufficient funding. Furthermore, problems include bandwidth subscription, the routine upkeep of computer hardware, software glitches, staff training deficiencies, and the deliberate obsolescence of commercial software. The need for workforce training and development, along with outdated business applications, also adds to the concerns faced by automated libraries. By embracing cloud computing, libraries can alleviate technological burdens, such as hardware failures, software issues, and staff training gaps. This shift allows libraries to concentrate on expanding their collections, enhancing patron services, and fostering innovation. With the use of cloud computing, libraries may simply share data with users, doing away with the need for local backups, maintenance, and storage. The establishment of digital libraries and repositories, the facilitation of data searches, the hosting of websites, the access to academic content, the storage of files, the improvement of library automation procedures, and other tasks can all be accomplished by libraries using cloud computing. The researchers observed that librarian's seems not to frequently use these cloud computing such as Institutional repository (e.g.Dspace, E-prints, Fedora and other open access repository), Web based email (e.g Gmail, Yahoo mail, Hotmail etc.), Social networking (e.g Facebook, Twitter, Whatsapp), Databases (e.g Science Direct, Ebscohost, Hinari, Agora etc.), Library website, WorldCat, Google Apps (Google Drive, Google Doc), Youtube and Dropbox for library services. Thus, it is against this background that the study evaluates the librarians' perception and use of cloud computing for library services in academic libraries of North East Zone, Nigeria.

1.2 Objectives of the Study

The objectives of the study determined the;

- Perception of Librarians toward Cloud Computing Technologies for Service delivery in Academic Libraries of North East Zone, Nigeria
- Extent of Utilization of Cloud Computing Technologies by Librarians for Services in Academic Libraries of North East Zone, Nigeria
- Challenges associated with Utilization of Cloud Computing Technologies in Academic Libraries of North East Zone, Nigeria.
- Influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria

1.3 Research Questions

The following research questions were answered:

- What is the perception of librarians on cloud computing technologies in the academic libraries of North East Zone, Nigeria?
- What is the extent of utilization of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria?
- What are the challenges of utilization of cloud computing technologies in academic libraries of North East Zone, Nigeria?
- What is the influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria

1.4 Hypothesis

To direct the study, the following null hypothesis was formulated:

H1. There is no significant influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria.

2. Literature Review

2.1 Conceptual Framework

The study was anchored on Technologies Acceptance Model (TAM) by Davis (1989). According to the

Model, staff productivity would grow as a result of Technologies' perceived value and simplicity of use. The concept goes on to say that two beliefs: perceived usefulness and perceived ease of use, determine a person's behavioral intention to embrace a system. Perceived usefulness according to Davis (1989) is "the

extent to which an individual believes that the usage of a particular system would increase his or her productiveness" at the same time as perceived ease of use is described as "the degree a person believes that the use of a particular machine would be free of effort" (Davis, 1989).

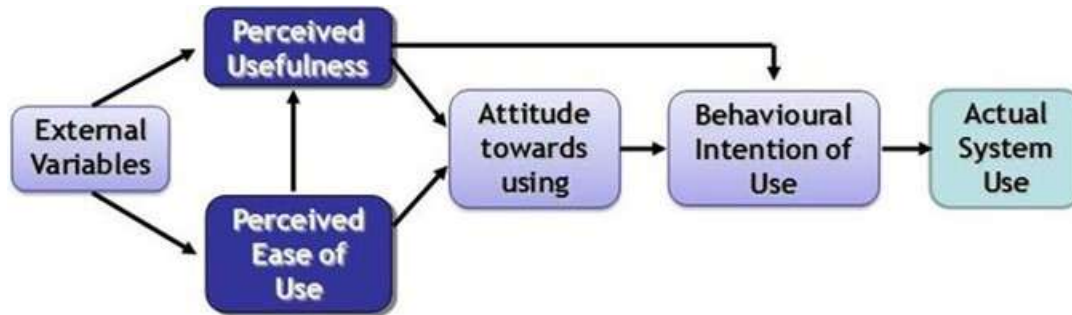


Fig 2.1 Davis (1989) Technologies acceptance model (TAM)

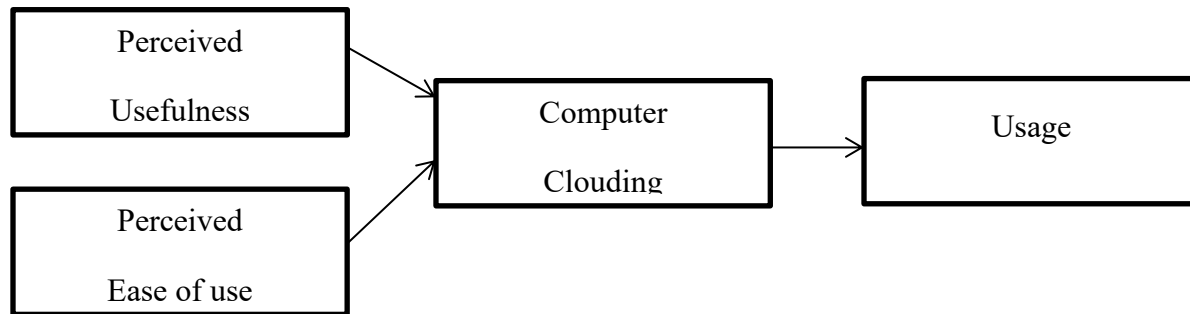


Fig.2.2: Adapted Technologies Acceptance Model (TAM) by the Researcher

The application of the Technologies Acceptance Model (TAM) to assess the extent to which librarians accept and are likely to adopt cloud computing Technologies can be summarized as follows:

- The use of TAM to comprehend how librarians accept cloud computing applications and their potential future utilization is grounded in several assumptions:
- If librarians perceive cloud computing applications as useful and user-friendly, they are likely to hold a positive attitude toward using them.
- When librarians find cloud computing applications straightforward to use, their inclination towards viewing the Technologies as beneficial is reinforced.
- A positive attitude among librarians toward cloud computing applications is associated with more frequent and intensive usage, as well as a favourable intention to continue using these applications.

- Librarians' continuous use of the Technologies signifies the presence of benefits.

This model and the current study are related because the model clarifies how employees view the value and simplicity of employing Technologies to deliver services. The study will instead assess librarians' opinions and use of cloud computing for library services. Both aspects involve the assessment of how Technologies, including cloud computing, is perceived and utilized in the context of service delivery.

3. Perception of Librarians on Cloud Computing Technologies in Academic Libraries

Different librarians' perspectives on the use of cloud computing are diverse. A study by Idhalama and Fidelis (2020) on attitude of library professionals on cloud computing applications in University of Dar es Salaam Library revealed that, majority of

professionals strongly agreed with the opinion that cloud computing applications improve quality of library services. This is an indication of a positive view library professionals have of cloud computing applications. However, the study raised concerns about cloud computing indicating that moving from ground to the cloud is surrounded by ambivalence as to whether cloud computing offers the best solution for serving users' needs or not. This was an obvious indication that, despite some people being enthusiastic about cloud computing, others are delaying adoption, as suggested by the literature.

A study by Dumbiri Babatope and Owairu (2024) showed that some librarians prefer to have their information kept on hard drives they have access to, or something like that, instead of cloud. This appears to have its roots in the librarians' lack of confidence in the cloud as a storage option for their data. This is in contrast to what a study by Comfort (2018) found. The research findings indicated that IT personnel within libraries play a crucial role in the realm of cloud computing. They serve as valuable complements or substitutes for in-house computing resources, contributing significantly to hardware and software maintenance. In a broader context, existing literature underscores that individuals hold diverse attitudes toward cloud computing, influenced by various factors. Burger (2019) submits that the utilization of cloud computing may not be a positive transformation as perceived as there are quite a number of complexities and implications that ought to be considered, for instance, is there a technical skill on the part of librarians? Other experts have discovered that the cloud computing revolution will undoubtedly change the economy in a variety of ways.

Muhammad, Fahad, Tasleem, & Muhammad (2017) conducted a study on cloud computing, exploring the general user's perspective and security concerns at universities in Faisalabad, Pakistan. The findings revealed that 70% of the respondents agreed that Cloud Computing is a relatively new Technologies with the potential to not only benefit libraries but also various other aspects of life. Despite this, it's worth noting that some scholars still hold critical viewpoints regarding this Technologies. The study of Bolaji and Aboki (2026) examined the perception, training and adoption of cloud computing by library staff in selected university libraries in Kwara State, Nigeria. Based on the Findings of the study, it was revealed that majority of the respondents had a positive perception of cloud computing adoption in the university studied. For Islam (2023), the concept of Cloud Computing represents a highly transformative development for national progress. As a result, people in academic and

other settings perceive it as a noteworthy shift in the paradigm of computing services, bringing about substantial positive change. According to Sivankalai (2021) libraries are using the cloud for putting together user resources, i.e. using Software as a Service (SaaS), such as in library catalogues, WorldCat, Googledocs, and the aggregated subject gateways like SUMMON, and others; the web Platform as a Service (PaaS) as in the use of Google AppEngine, or Infrastructure as a Service (IaaS) as in the use of D-Space, FEDORA, and others.

The study of Edwin (2018) investigated librarians' awareness and perception towards the adoption of cloudbased technologies in public university libraries in South-south, Nigeria and determine the perception of librarians towards the adoption of cloud-based technology in university libraries. The descriptive survey method was used for the study. The population of this study was 226 librarians in public university libraries in South-south Nigeria. Questionnaire was the instrument used for data collection and 226 copies of questionnaire were administered. In response, 188 copies were retrieved and found useable, thereby indicating a response rate of 83%. The data was analysed using descriptive statistics. The study established that the level of librarians' awareness and perception towards the adoption of cloud-based technologies in public university libraries in South-south, Nigeria is poor. The study also revealed that the perception of librarians towards the adoption of cloud-based technologies in the university libraries is poor. The study recommended that proper and adequate trainings, workshops and conferences should be organized to sensitize and improve librarians' knowledge and understanding of emerging technologies in libraries. In a study by Ashtari and Eydgahi (2017), the researchers explored the impact of user perceptions regarding cloud computing technologies. The study concentrated on the interactions between factors found in the literature that were thought to affect students' perceptions at a university in Southeast Michigan. Users' opinions on the usefulness and efficacy of cloud computing apps, as well as their perceptions of ease of use, Internet self-efficacy, computer anxiety, and computer self-efficacy, were all included in these factors. The study featured an online poll of 40 Michigan University undergraduate students, and the Technologies Acceptance Model (TAM) was used to gauge student adoption of cloud computing.

Extent of Utilization of Cloud Computing Technologies Services in Academic libraries in North East Zone, Nigeria
The adoption of cloud computing within libraries has

become increasingly prevalent, driven by the need to facilitate collaboration among staff and users, enhance accessibility, manage resources effectively. Research indicates a growing recognition of the importance of cloud computing in supporting collaborative endeavors within library settings (Rasmussen and Hjørland 2023). Cloud computing serves as repositories of knowledge and information, enabling staff and users to collaborate on projects, share resources, and engage in scholarly discourse more efficiently. Furthermore, the adoption of cloud computing technology is instrumental in enhancing accessibility and availability of resources for library users. Cloud computing offer users convenient access to a vast array of materials, irrespective of their physical location or institutional affiliation (Borgman, Scharnhorst, and Golshan 2019). Through digitizing collections and implementing user-friendly interfaces, libraries can broaden access to resources, promote inclusivity, and cater to the diverse needs of their user communities. Moreover, libraries are increasingly leveraging cloud computing to manage and preserve their collections effectively. Digital technologies enable libraries to streamline non-print resources workflows, improve metadata management, and implement preservation strategies to safeguard against data loss or degradation (Nwankwo 2023). Additionally, cloud computing technology serves as valuable tools for storing and organizing diverse types of content, ranging from textual documents and audio-visual recordings to multimedia artefacts and born-digital materials. This comprehensive approach to managing digital resources ensures their long-term accessibility and usability for current and future generations of users. The findings of Zubairu, Akiola and Hamzat (2021) on awareness and adoption of cloud computing in Nigerian libraries shows that 88% of library professions sees library management software (LMS) as an area where cloud computing is used, while 7% perceive the second majority area as Storage of data and files. Then 5% agreed to Back up/ storage of information resources followed by Data import and export and Resource Repository respectively. Acquisition, Cataloguing and classification were found to be the least area where it is applied.

Dime and Okeji (2025) The study's objective was to look into how librarians in African university libraries employ cloud computing technology to provide library services. Methods: An online survey was used to gather qualitative information from 315 librarians employed by 67 university libraries in English-speaking African nations. Results: According to the study, the most often listed Cloud Computing (CC) tools utilized by African university library librarians

include YouTube, Google Drive, OPAC, Google Form, Gmail, and Google Scholar. The study also showed that librarians use CC technologies to store and share files, share videos related to library orientations and other video contents, collaborate with other librarians for research projects, survey users' level of satisfaction with library services, online document editing services, and provision of virtual/online reference services. The majority of librarians cited lack of funding, lack of data security and privacy, irregular staff training and development, and lack of CC knowledge and awareness as challenges associated with adoption of CC technologies in African universities. The study offers solutions to the security of data threats in cloud environments. The study concluded that, the results will help providers and prospective adopters develop context-specific strategies for cloud service penetration and wise adoption decisions (ADs), respectively. The study's conclusions will improve knowledge of and usage of CC to improve library services for patrons of academic libraries throughout Africa.

The study of Adejo (2024) was on the use of cloud computing technology by librarians at University of Nigeria, Nsukka Library. The study employed a descriptive survey research design of the quantitative method in order to gain a thorough understanding of the use of cloud computing technology for libraries. Ten (10) copies of the questionnaire were given to the university librarian and library staff of the ICT unit at the University of Nigeria, Nsukka Library. According to the results, five (50%) of the respondents said that the University of Nigeria, Nsukka Library used free software as a service (SaaS), followed by platform as a service (PaaS) and infrastructure as a service (IaaS), each of which was affirmed by two (20%) respondents. One (10%) respondent said that paid subscription software as a service (PaaS) was the least used layer of cloud computing technology services. It was concluded that the University of Nigeria, Nsukka Library uses cloud computing technology primarily in the areas of cataloging and metadata, storage, retrieval, and generation. Lastly, it is advised that cloud computing technology be implemented in all of the university's satellite campuses, that all library employees receive training and retraining on cloud computing technology, and that the library receive a sufficient annual budget in addition to making its cloud computing technology operations available to the public.

The use of cloud computing in a few academic libraries was investigated in this study by Mabawonku et al. (2024). The study employed a survey research

design. Out of 250 academic librarians and library officers, a sample size of 152 was chosen at random for the study. The tool for gathering data was a questionnaire. Descriptive statistics (frequency count, percentage, mean, and standard deviation) were used to examine the gathered data. According to the study, library staff members are knowledgeable about cloud computing technology, which could improve how well the technology is implemented in Lagos and Ogun States libraries. Additionally, cloud computing technology was embraced for staff and user collaboration, accessibility, digital resource storage, etc. Numerous obstacles to implementing cloud computing were identified by the study, including a lack of funding, worries about data security, a shortage of internal specialists, and—above all—staff aversion to change. In order to ensure that cloud computing technology is implemented effectively, the study advised library administration to increase internet connectivity and solve the shortage of internal expertise.

The application of cloud computing technology by library staff for service delivery in university libraries in Nasarawa State, Nigeria, was the subject of Ackley and Annune's (2025) study. Three research questions and two hypotheses guided the study; a descriptive survey research design was used; the population was 140 library staff, and since the population was small and manageable, there was no sample size; the instrument for data collection was a self-developed questionnaire; and Chi-square was used to test the null hypotheses at the 0.05 level of significance. Thirty librarians from the University of Abuja, which is outside the study area, participated in a trial test of the instrument for internal consistency, and the results were subjected to reliability analysis using the Cronbach Alpha technique. The study adopted the overall dependability coefficient of 0.93. Data analysis was done using frequency, mean, and standard deviation. The study's conclusions showed that library employees employed a variety of cloud computing technologies, including Koha ILS, Polaris SLO, WorldCat, and Online Computer Library Center (OCLC). Additionally, the results showed that university library employees use OCLC services to find and preserve print and electronic library materials. They also have the ability to navigate all cloud computing services, use digital devices like laptops, network with coworkers via computers, and apply cloud computing technology for service delivery in university libraries in Nasarawa State. Among other things, it was suggested that library employees receive frequent training to keep them up to date on how cloud computing technology is used in university libraries.

4. Challenges of Cloud Computing Technologies in Academic Libraries

Like every technological concept, cloud computing is not an exception in terms of trust and security issues. Ensuring both privacy and security of cloud information is not easy (Hussaini, Vishistha, Garba, & Jimah, 2017). As a result, efforts to encourage people to use these technologies are not yielding the needed results because people have fear of putting their digital information in the hands of third parties. The study further reveals that people fear that their information will no longer be confidential, or it will be more prone to theft and loss because the libraries do not have ownership of the servers on which they keep their contents. Overall, although some libraries and their users have adopted cloud computing, they have worries about their ownership and privacy of their information (Pegu, 2023). An additional cause for apprehension regarding privacy and security pertains to the worry about potential harm from insiders with malicious intent. This unease arises from the fact that service providers do not disclose their hiring procedures, access-granting practices, or monitoring mechanisms for their personnel. This lack of transparency leads both current and prospective users to be concerned that the absence of adequate monitoring of malicious insiders could jeopardize the safety of data handled through cloud computing. This was confirmed by study of Almanasir (2025) who revealed that deletion without a backup, loss of the encoding key or unauthorized access, data is always in danger of being lost or stolen. Considering that if the data managed through cloud computing are lost, a library will have no physical or local back up.

Another challenge for cloud computing is its dependence on internet connection. Libraries without or with unstable internet connections cannot implement cloud computing. Where cloud computing is in use, when an Internet connection goes down for any reason, all the operations of the organization in question will be in a stand-still until connectivity is back. Internet has been a driving force in various technologies that have been developed, including cloud computing. Apart from reliance on internet connectivity, cloud computing increases bandwidth demands because of their need for high-speed connections to perform effectively and efficiently (Hussaini, et al. 2017). As a result, libraries need to have sufficient financial budgets to run their service with reliance on cloud computing. This was confirmed by Hussaini, Vishistha, Garba, & Jimah (2017) in their study which revealed that budget constraint is another challenge for libraries that want to use cloud computing. The cost implications come from

equipment procurement, infrastructure set up and implementation.

The study of Anike and Otubelu (2024) investigated the application of cloud computing services in public university libraries in South- East, Nigeria. The findings revealed that respondents had applied cloud computing services in their libraries amidst challenges such as pricing, acceptance, security, sustainability and post adoption concerns. The study recommended that based on the enormous benefits of cloud computing services, more Information Technology (IT) infrastructure which can enhance the application of cloud computing services should be provided for enhanced services delivery in public university libraries. Operating amidst declining budgets, increasing costs, and a resource-scarce environment are some of the challenges of internet of things in most of the academic libraries in India (Pant, Negi and Seth 2022). The challenges associated with the application of cloud computing technology for effective service delivery in University Libraries in North Central, Nigeria, anchor around poor institutional subscription, poor internet network development, epileptic power supply, and lack of awareness of cloud computing and its application to library services, among others (Alabi, Omekwu and Martins, 2024). Low internet bandwidth significantly hampers the implementation of cloud technologies in libraries, which increasingly depend on high-speed internet for various services. To function effectively, cloud-based applications require robust and reliable internet connections. When bandwidth is insufficient, libraries may experience slow service speeds, reduced access to digital resources, and impaired ability to offer new technologies that require high-speed internet, such as streaming media or large-scale data analysis (Golightly et al., 2022).

Implementing cloud technologies in libraries is a complex process that requires a blend of technical skills and strategic planning. When libraries lack experienced personnel, they face significant challenges in adopting cloud services effectively. Without skilled staff, libraries may struggle with the technical aspects of cloud migration, such as data transfer, system integration, and configuring cloud-based services to meet the unique needs of their patrons. Furthermore, lacking expertise can lead to an inadequate understanding of cloud security and privacy issues, potentially exposing sensitive user data to risks. The lack of experienced personnel can hinder the library's ability to leverage cloud technologies to improve service delivery, streamline operations, and expand access to digital resources. To address these challenges, libraries might consider investing in

training for existing staff, recruiting specialized personnel, or exploring collaborative arrangements where technical responsibilities are shared with institutional IT departments. Ultimately, the successful implementation of cloud technologies in libraries depends on the technology and the people who manage and utilize it (Alabi, Omekwu and Martins, 2024). Aviamu, Popoola, and Atuase (2019) found that the lack of institutional policy guidelines and cloud service provider authentication procedures were the main obstacles preventing academic libraries from adopting cloud computing.

5. Research Methodology

Survey research method was adopted for this study. The study population comprised 209 librarians from three university libraries in North-East Nigeria: Ramat Library, University of Maiduguri (146); Goodluck Ebele Jonathan Library, Yobe State University, Damaturu (37); and Zubairu Mohammed Library, Abubakar Tafawa Balewa University, Bauchi (26). Owing to the manageable population size, a census approach was adopted since all the 209 librarians were included in the study. A self-created questionnaire titled: Librarians' Perception and Use of Cloud Computing for Library Services in University libraries of North East Zone, Nigeria (LPUCLS). The instrument was subjected to face validity. A reliability coefficient of 0.87 was obtained for the instrument using Cronbach Alpha. Descriptive statistics, specifically frequency distributions and percentages, were used to answer Research Questions One, Two, and Three, while simple linear regression (R-value) was used to answer Research Question Four. The corresponding p-value was used to test the hypothesis at the 0.05 level of significance. Decision Rule: For Research Questions One and Three, combined Strongly Agree (SA) and Agree (A) responses of 50.0% or above indicated positive perception and agreement that a factor constituted a challenge, respectively, while combined Disagree (D) and Strongly Disagree (SD) responses of 50.0% or above indicated negative perception and disagreement. For Research Question Two, combined High Extent (HE) and Moderate Extent (ME) responses of 50.0% or above indicated high utilization, while combined Low Extent (LE) and Zero Extent (ZE) responses of 50.0% or above indicated low utilization. For Research Question Four, R-values of 0.10–0.39, 0.40–0.59, 0.60–0.79, and 0.80–0.99 indicated low, moderate, high, and very high relationships, respectively. The null hypotheses were rejected at $p < .05$.

6. Data Analysis and Results

The table 1 Presents the response rate of questionnaire administered and retrieved in the three (3) University Libraries under study.

Table 1: Distribution and Return of Questionnaire

Academic Libraries	Questionnaire administered	Questionnaire returned	Questionnaire not returned/ invalid
RLUM	146	97 (66.4%)	49 (33.6%)
GEJLYSU	37	34 (91.9%)	3 (8.1%)
ZMLATBU	26	26 (100%)	0 (00.0%)
Total	209	157(75.1%)	52 (24.9%)

KEY:

RLUM: Ramat Library, University of Maiduguri, Maiduguri

GEJLYSU: Good Luck Ebele Jonathan Library, Yobe State University Library, Damaturu

ZMLATBU: Zubairu Mohammed Library, Abubakar Tafawa Balewa University, Bauchi

Table 1 reveals that a total of 209 copies of the questionnaire were distributed to the respondents, and that 157 of the copies were successfully completed and recovered. This was deemed practical, resulting in a response rate of 75.1%.

Research Question 1: What is the perception of librarians on cloud computing technologies in the academic libraries in North East Nigeria?

Table 2: Perception of Librarians on Cloud Computing in the library

S/N	Statements	SA	A	D	SD
1	Security is a big concern in using the cloud computing applications	57 (36.3%)	43 (27.4%)	23 (14.6%)	34 (21.7%)
2.	Cloud computing use often requires constant internet connections which may be a barrier to its effective use	43 (27.4%)	59 (37.6%)	35 (22.3%)	20 (12.7%)
3.	Use of cloud computing requires special ICT skills which may be difficult to adapt to	64 (40.8%)	45 (28.7%)	29 (18.5%)	19 (12.1%)
4.	Cloud computing use have very little or no benefit to the library daily works and service delivery	7 (4.5%)	24 (15.3%)	93 (59.2%)	33 (21.0%)
5.	I feel cloud computing use may leave room for security threat to my documents or personal credentials	49 (31.2%)	47 (29.9%)	43 (27.4%)	18 (11.5%)
6.	I feel cloud computing use may lead to loss of data which may be difficult to recover if no backup is in place	52 (33.1%)	41 (26.1%)	33 (21.0%)	31 (19.7%)
	TOTAL	272(28.9%)	259(27.5%)	256(27.2%)	155(16.4%)

Source: Field Survey, 2023

Key: SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

The findings in Table 2 indicate that librarians generally had a positive perception of cloud computing technologies in academic libraries in North-East Nigeria. Specifically, a majority of the respondents perceived that security is a major concern (63.7%), constant internet connectivity may hinder effective use (65.0%), cloud computing requires special ICT skills that may be difficult to adapt to (69.5%), cloud computing may expose documents or personal credentials to security threats (61.1%), and it may result in data loss where adequate backup is unavailable (59.2%). Conversely, a majority of the respondents (80.2%) disagreed with the statement that cloud computing has little or no benefit to library operations and service delivery, indicating that they recognized its usefulness in library services. Furthermore, the overall perception percentage of 56.4% (obtained from the combined percentages of Strongly Agree and Agree) exceeded the benchmark of 50.0%, implying that there is positive perception of cloud computing

technologies among librarians in academic libraries in the North-East Zone of Nigeria.

Research Question 2: What is the extent of utilization of cloud computing technologies in services delivery in the libraries?

Table 3: Utilization of Cloud Computing Services in the library

S/N	Statements	HE	ME	LE	ZE
1	I utilize library portal/website for new arrivals, book request, queries, and feedback	18 (11.5%)	43 (27.4%)	47 (29.9%)	49 (31.2%)
2.	I use Web OPAC, online renewal, and reservation storage	7 (4.5%)	24 (15.3%)	33 (21.0%)	93 (59.2%)
3.	I use the cloud (Drop Box, Google Apps (Google Drive, Google Doc) in backing up library information resources	19 (12.1%)	29 (18.5%)	45 (28.7%)	64 (40.8%)
4.	I often store the library data and files in the public server	7 (4.5%)	24 (15.3%)	33 (21.0%)	93 (59.2%)
5.	I do use the library management system software (LMS) on the cloud	20 (12.7%)	35 (22.3%)	59 (37.6%)	43 (27.4%)
6.	I do use the Web based email (e.g Gmail, Yahoo mail, Hotmail, etc.) for communication	52 (33.1%)	41 (26.1%)	33 (21.0%)	31 (19.7%)
	TOTAL	123(13.1%)	196(20.8%)	250(26.5%)	373(39.6%)

Source: Field Survey, 2023

Key: HE: High Extent; ME: Moderate Extent; LE: Low Extent; ZE: Zero Extent

The findings in Table 3 indicate that librarians generally had a low extent of utilization of cloud computing technologies in service delivery in academic libraries in North-East Nigeria. Specifically, a majority of the respondents reported a low or zero extent of utilizing the library portal/website for new arrivals, book requests, queries, and feedback (61.1%); Web OPAC, online renewal, and reservation services (80.2%); cloud applications such as Dropbox and Google Apps for backing up library information resources (69.5%); storing library data and files on public servers (80.2%); and library management system (LMS) software on the cloud (65.0%). However, a majority of the respondents (59.2%) reported a high or moderate extent of using web-based email services such as Gmail, Yahoo Mail, and Hotmail for communication. Furthermore, the overall utilization percentage of 33.9% (obtained from the combined percentages of High Extent and Moderate Extent) was below the benchmark of 50.0%, implying that there is low extent of utilization of cloud computing technologies in services delivery in the libraries.

Research Question 3: What are the challenges of using cloud computing technologies in the libraries?

Table 4: Challenges of using Cloud Computing Technologies in the library

S/N	Statements	SA	A	D	SD
1	Slow internet connectivity	64 (40.8%)	45 (28.7%)	29 (18.5%)	19 (12.1%)
2.	Epileptic Power Supply	49 (31.2%)	47 (29.9%)	43 (27.4%)	18 (11.5%)
3.	Lack of technical skills is hampering efficient use of cloud computing in your library	43 (27.4%)	59 (37.6%)	35 (22.3%)	20 (12.7%)
4.	Data Security	57 (36.3%)	43 (27.4%)	23 (14.6%)	34 (21.7%)
5.	Irregular Staff training and development	52 (33.1%)	41 (26.1%)	33 (21.0%)	31 (19.7%)
6.	Data Privacy	64 (40.8%)	45 (28.7%)	31 (19.7%)	17 (10.8%)
	TOTAL	329 (34.9%)	280 (29.7%)	194(20.6%)	139(14.8%)

Source: Field Survey, 2023

Key: SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

The findings in Table 4 indicate that librarians generally agreed that several factors constitute challenges to the use of cloud computing technologies in academic libraries in North-East Nigeria. Specifically, a majority of the respondents agreed that slow internet connectivity (69.5%), epileptic power supply (61.1%), lack of technical skills for the efficient use of cloud computing (65.0%), data security concerns (63.7%), irregular staff training and development (59.2%), and data privacy issues (69.5%) were major challenges affecting the adoption and utilization of cloud computing technologies in their libraries. Furthermore, the overall agreement percentage of 64.6% (obtained from the combined

percentages of Strongly Agree and Agree) exceeded the benchmark of 50.0%, implying that slow internet connectivity, epileptic power supply, lack of technical skills, data security, irregular staff training and development as well as data privacy are the challenges of using cloud computing technologies in the libraries in the North-East Zone of Nigeria

Research Question 4: What is the influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria?

Table 4: Result of Simple Linear Regression of the influence of perception and utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria (N=157)

Variables	R	R ²	Adjusted R ²
Perception	0.825	0.681	0.679
Utilisation of cloud computing technologies			

The result in Table 4 shows a correlation coefficient (R-value) of 0.825, indicating a very high positive relationship between librarians' perception and the utilisation of cloud computing technologies for service delivery in academic libraries of the North-East Zone, Nigeria. The coefficient of determination (R²-value) of 0.681 indicates that 68.1% of the variance in the utilisation of cloud computing technologies for service delivery is explained or predicted by librarians' perception. This means that there is influence of perception and utilization of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria.

H₁. There is no significant influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria.

Table 5: Result of Simple Linear Regression of the influence of perception on utilisation of cloud computing technologies for service delivering by librarians in academic libraries of North East Zone, Nigeria (N=157)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8461.89	1	8461.89	90.73	.00 ^b
Residual	14456.34	155	93.27		
Total	22918.23	156			

The result in Table 5 shows an F-ratio of 90.73 with the corresponding probability level of significance of .00 at 1 and 155 degrees of freedom. This level of significance is less than .05, on which the decision was based. With this result, the null hypothesis was rejected. This implies that there is significant influence of perception on the utilisation of Cloud Computing Technologies in Academic Libraries of North-East Zone, Nigeria.

7. Summary of Findings

The following are the summary of findings:

- There is positive perception of cloud computing technologies among librarians in academic libraries in the North-East Zone of Nigeria.
- There is low extent of utilization of cloud computing technologies among librarians in services delivery in the libraries.
- Slow internet connectivity, epileptic power supply, lack of technical skills, data security, irregular staff training and development as well as data privacy are the challenges of

using cloud computing technologies in the libraries in the North-East Zone of Nigeria

- There is significant influence of perception on the utilisation of Cloud Computing Technologies in Academic Libraries of North-East Zone, Nigeria

8. Discussion

The findings on the perception of librarians on cloud computing in libraries revealed that there is positive perception of cloud computing technologies among librarians in academic libraries in the North-East Zone of Nigeria. The finding is in agreement with that of Muhammad, Fahad, Tasleem, & Muhammad (2017) whose major findings indicated that the librarians have positive perception for cloud computing in the universities of Faisalabad libraries, Pakistan. The finding contradicted the studies of Dumbiri Babatope and Owairu (2024) who revealed that there have been a misconception among librarians that moving the library into the cloud will eradicate the need for library staff as majority of works will be done by cloud service provider, also they have lack of trust in cloud as a place to keep their information. The findings on

the extent of utilization of cloud computing technologies among librarians in services delivery in the libraries revealed that there is low extent of utilization of cloud computing technologies among librarians in services delivery in the libraries. The finding of the analysis is supported by Edwin (2018) who indicated that majority of librarians do not use the cloud computing for library services rather they use it for their personal purposes. In contradiction to the finding of the study, the work of Zubairu, Akinola, and Hamzat (2021) which reported that majority of librarians use cloud computing for providing services to users, they further supported that library management software were frequently use.

The finding on the challenges that hinder effective use of cloud computing indicated that slow internet connectivity, epileptic power supply, lack of technical skills, data security, irregular staff training and development as well as data privacy are the challenges of using cloud computing technologies in the libraries in the North-East Zone of Nigeria. The finding is in agreement with the study of Pegu (2023) who reported that data security and privacy as a challenge and the study further reported that people fear that their information will no longer be confidential, and that it may be more prone to theft and loss because the libraries do not have complete ownership of the servers on which these contents are kept. In the same vein, the findings was also supported by Hussaini, Vishistha, Garba, and Jimah (2017) who indicated that the cloud computing dependence on internet connection is another constraint in its application and use in the libraries as there is budget constraint which affect the purchase of adequate bandwidth. The finding of the influence of perception on the utilisation of Cloud Computing Technologies in Academic Libraries of North-East Zone, Nigeria revealed that there is significant influence of perception on the utilisation of Cloud Computing Technologies in Academic Libraries of North-East Zone, Nigeria. The finding is in agreement with that of Idhalama and Fidelis (2020) whose finding revealed that, majority of professionals strongly agreed with the opinion that cloud computing applications improve quality of library services. This is an indication of a positive view library professionals have of cloud computing applications. The finding is also in agreement with that of Sivankalai (2021) who reported that libraries are using the cloud for putting together user resources, that is, using Software as a Service (SaaS), such as in library catalogues, WorldCat, Googledocs, and the aggregated subject gateways like SUMMON, and others; the web Platform as a Service (PaaS) as in the use of Google AppEngine, or Infrastructure as a Service (IaaS) as in the use of D-Space, FEDORA, and

others.

9. Conclusion

The study concluded that librarians in academic libraries in the North-East Zone of Nigeria have a positive perception of cloud computing technologies. However, despite this positive perception, cloud computing technologies were utilised to a low extent in library service delivery. The low level of utilisation was attributed to several challenges, including slow internet connectivity, epileptic power supply, inadequate technical skills, data security concerns, irregular staff training and development, and data privacy issues. The study further concluded that librarians' perception significantly influences the utilisation of cloud computing technologies. Therefore, although librarians generally perceive cloud computing technologies favourably, addressing the identified infrastructural, technical, and organizational challenges is essential for improving their utilisation and enhancing effective service delivery in academic libraries in the North-East Zone of Nigeria.

10. Recommendations

Based on the findings of the study, the study offers the following recommendations:

- Librarians should be encouraged through proper training in order to have positive perception concerning the on utilisation of cloud computing for effective service delivery in the library.
- University libraries should have standby power generating source. This will be very important particularly in the situation of power outage; besides the generator, the university management should make frantic effort to generate an alternative source of electricity such as solar and inverters as this will be relatively cheap and help the process of using electronic resource provision on the cloud thereby reducing dependence on generating set.
- Institutional bandwidth should be increased and readily available as the cloud computing are more dependent on the internet. University library should have their own dedicated bandwidth with fast Internet connectivity. This will improve the use of the cloud applications and as well put an end to the problem of network fluctuations and slow speed in the process of uploading or downloading resources from the databases or

cloud.

- Information literacy is needed to be given to the users on the use of cloud computing app, so that librarians become aware and make use of them.

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Measuring the Long-Term Relationship between the Money Supply (M2) and Public Spending, and its Impact on Economic Growth

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Abstract. This study focuses on analyzing the causal relationship between selected macroeconomic variables—namely public expenditure, money supply (M2), and economic growth in Iraq—over the period 1988 to 2014. The research employs modern econometric techniques such as time series analysis, cointegration tests, the two-step Engle-Granger methodology, and the Johansen-Juselius cointegration and error correction approach, in addition to Granger causality tests. The study aims to address key questions: Is there a causal relationship between these variables and economic growth in Iraq? What is the nature and direction of these relationships? Which variable has the most significant impact on growth rates?

To answer these questions, the study is based on several hypotheses, the most important of which is the existence of a long-run, bidirectional relationship between the selected variables and economic growth, with the specific nature of the Iraqi economy playing a major role in shaping this relationship.

The study arrives at several important findings, including:

- The growth trajectory of the Iraqi economy exhibits significant volatility during the study period (1988–2014), reflecting the fragile structure of the economy and its dependence on limited and rapidly changing resources, which hinders the sustainability of growth.
- Despite a notable increase in both public expenditure and growth rates, the money supply (M2) proved to be the most volatile variable and the most influential in determining growth rates.
- The results show a unidirectional causal relationship from public expenditure to money supply (M2), but

not the reverse. Meanwhile, a bidirectional (reciprocal) causal relationship was found between money supply (M2) and gross domestic product (GDP).

- The study reveals an important empirical insight: the rentier nature of the Iraqi economy accounts for the deviations from conventional economic theory regarding the relationship between these variables and GDP.

Based on these findings, the study recommends improving the management of these macroeconomic variables through structural reforms, enhancing their role in stimulating economic growth, implementing fiscal reforms to support future growth prospects, and exerting greater efforts to mitigate external shocks by diversifying income sources within the Iraqi economy.

Keywords: Broad Money Supply (M2), public spending, Economic Growth.

Research Problem

The research problem centers on the unique nature of the Iraqi economy and the various economic challenges and crises it has faced—particularly since the 1980s—which have had a direct impact on several key macroeconomic variables, most notably public expenditure and money supply. These factors, in turn, are closely linked to economic growth, which is considered a fundamental indicator of economic development and a measure of a country's advancement or underdevelopment.

Unlike in many regional and global economies, these variables in Iraq do not function in a typical or stable manner.

This abnormal behavior underscores the urgent need to examine the long-run relationship between these variables and economic growth in Iraq, as well as to forecast the future trajectory of this relationship.

Significance of the Study

The significance of this study stems from the importance of the aforementioned macroeconomic variables and their relationship to economic growth in Iraq.

Determining the nature and direction of the relationship between macroeconomic variables and economic growth is of particular importance in shaping fiscal and monetary policies in the Iraqi economy. It also enables policymakers to make informed decisions based on the findings and insights derived from the research.

Research Hypothesis

This study is based on the following hypotheses:

1. There is a long-term, bidirectional relationship between public expenditure and economic growth.
2. There is a long-term, bidirectional relationship between money supply and economic growth.
3. The nature and structure of the Iraqi economy influence the pattern of the relationship between macroeconomic variables and economic growth.

Research Objectives

This study aims to achieve the following objectives:

1. To determine the long-term relationship between macroeconomic variables (public expenditure and money supply) and economic growth in Iraq.
2. To forecast the trajectory of macroeconomic variables and economic growth in Iraq.
3. To identify which of the macroeconomic variables has the greatest impact on economic growth.

Structure of the Study

To test the research hypothesis, the structure of the study has been divided into three main sections:

- The first section presents the conceptual framework, focusing on the money supply (M2), public expenditure, and gross domestic product (GDP).

- The second section examines the relationship between these variables and their impact on economic growth.
- The third section is dedicated to forecasting the trajectory of these variables.

The study concludes with a set of findings and recommendations.

Chapter One: The Conceptual Framework of Money Supply, Public Expenditure, and Economic Growth

First: Money Supply

The volume of expenditure corresponding to the current production of goods and services is considered the central point in monetary economic analysis. This volume significantly affects economic welfare through its impact on the levels of output, employment, and prices.

From a monetary perspective, this volume of expenditure is represented by the product of the money balance and the velocity of money circulation.

1- The Concept of Money Supply

The concept of money supply refers to the stock of instruments used as a medium of exchange. Within this framework, various definitions of money supply have emerged.

Money supply is defined as "the currency in circulation plus various types of bank deposits" (), or as "the total amount of money circulating in a given society during a specific period, represented by all forms of means of payment" ().

Another definition states that it is "the total currency in circulation in addition to certain types of deposits that constitute liabilities on banking and financial institutions".

Due to differing views among economists on which types of deposits should be included, multiple definitions of money supply have emerged. The central bank controls the supply of money and, in turn, influences the inflation rate in the medium and long term.

2- Monetary Aggregates

Due to the variation in forms of money resulting from economic and social development, as well as the evolution of banking habits in different societies, monetary aggregates can be classified as follows:

A. Base Money (BM)

Base money consists of the legal currency issued by the central bank, including both banknotes and coins. It is characterized by its full liquidity and is subject to strict control by the monetary authority over its issuance. Several other factors also influence base money, such as the movement of foreign assets, which play a significant role in money creation.

However, when calculating the money supply, not all of the base money (BM) is included. Only the portion circulating outside the banking system—that is, the part held by the public (denoted as CC)—is considered. The remaining portion constitutes bank reserves, which are either held in the commercial banks' reserve accounts or as demand deposits at the central bank.

In other words:

$$BM = CC + R \quad \text{BM} = \text{CC} + \text{R}$$

Where:

- BM = Base Money
- CC = Currency held by the public
- R = Bank reserves (commercial banks' holdings at the central bank)

B. Aggregate (M1)

This aggregate, commonly referred to as M1, represents the total stock of monetary payment instruments. It includes, in addition to the circulating legal tender (E), the demand deposits, which consist of current account balances held by the public at commercial banks and postal check centers.

It has been noted that M1 comprises the full range of means of payment that allow economic units to directly choose between all goods and services available in the market and to settle debts arising from transactions.

In formulaic terms:

$$M1 = E + \text{Demand Deposits} \quad M1 = E + \text{Demand Deposits}$$

Where:

- E = Currency in circulation (outside the banking system)
- Demand Deposits = Balances in current accounts available for immediate withdrawal or payment

1- Aggregate M2

Aggregate M2 is referred to as domestic liquidity or the sum of temporary holding instruments of

purchasing power. It includes all components of M1, in addition to various types of time deposits, such as:

- Fixed-term deposits,
- Interest-bearing deposits,
- Allocated or special-purpose deposits,
- Treasury bonds,
- Passbook savings accounts, and other similar instruments.

These are elements that can be converted into cash or demand deposits either without loss or with minimal loss in value. These deposits, recorded on the liability side of a bank's balance sheet, represent funds that the customer agrees not to withdraw before a specified maturity date.

Thus, Aggregate M2 is considered the most comprehensive monetary aggregate, as it significantly influences economic activity and inflation. It also reflects the direct substitution relationship between money on one side and goods and services on the other.

This aggregate is the broadest measure of money supply that the monetary authority can monitor and control effectively, given that the majority of its components are held within the banking system, which is under the close supervision of the central bank.

The broad money supply is defined as:

$$M2 = C + D + T \quad M2 = C + D + T$$

Where:

- C = Currency in circulation
- D = Demand deposits
- T = Time deposits

C. Aggregate M3

This aggregate is referred to as domestic liquidity or the set of value-storing instruments. In addition to time deposits with non-bank financial institutions—such as those held with savings and pension funds—M3 also includes public and private treasury bonds held by non-financial entities.

Since these institutions do not belong to the official banking and monetary sectors and are not closely monitored by the monetary authority, it is difficult to include these deposits fully in the calculation of the money supply. However, their role in influencing the overall money supply should not be overlooked.

Factors Influencing the Money Supply

The money supply is determined by five main factors:

A. Non-Borrowed Reserves (NBR):

Determined by the central bank.

B. Borrowed Reserves (BR):

Also determined by the central bank.

C. Excess Reserves (ER):

Set by commercial banks based on their liquidity preferences and lending strategies.

D. Currency in Circulation (C):

Determined by the public's demand for cash holdings.

E. Required Reserve Ratio (RR):

Established by the central bank as a regulatory tool to control liquidity in the banking system.

In addition, there is another factor that influences the money supply, namely the net foreign assets (NFA).

This component consists of the following elements:

- Convertible foreign currencies.
- Monetary gold.
- Deposits held in foreign banks.
- Special Drawing Rights (SDRs).
- The reserve position in the International Monetary Fund (IMF).
- Foreign investments.

2. Public Expenditure:

Public expenditure plays a significant and prominent role in managing economic activity, as it constitutes the largest and most important component of the Gross Domestic Product (GDP). Due to its great importance and substantial weight in the economy, it will be examined as follows:

1- The Concept of Public Expenditure

Public expenditure is defined as a monetary amount spent by a public authority to satisfy a public need.

It is also defined as a sum of money paid by the public treasury, after being approved by the legislative authority, to be spent by a public entity to provide public goods and services and achieve economic and social objectives.

Alternatively, it can be described as a sum of money spent by the state or a legal public entity to achieve a public benefit.

There are other formulations of the definition of public expenditure, but they all generally refer to funds spent by the government or any public entity to satisfy a public need.

2. Theories Explaining the Phenomenon of Public Expenditure Growth

The phenomenon of public expenditure growth has attracted the attention of economists, as it is a continuous trend observed in both developed and developing countries. Based on their statistical studies, economists have been able to formulate general laws to explain this phenomenon. Among the most important of these are Wagner's Law and the Peacock-Wiseman theory, as both address the fundamental causes behind the increase in public expenditures. These theories will be studied as follows:

A. Wagner's Law:

Also known as the Law of Increasing State Activity, Wagner's Law was first fundamentally observed by the German economist Wagner in 1883. Its main idea revolves around the notion that any increase in the average income per capita will be reflected in a corresponding increase in the growth rates of public expenditure (). This is because the size of the public sector in the economy grows alongside national income. This relationship implicitly results from the fact that economic growth leads to structural changes in various economic and social variables, as well as an increase in aggregate demand, part of which is met by the public sector, thereby causing an increase in public expenditures in the economy.

Accordingly, Wagner's Law indicates a long-term causal relationship between public expenditure and national income, where the elasticity of public expenditure with respect to income is greater than one. Thus, the increase in per capita public expenditure is greater than the increase in per capita national income. This can be illustrated in the following graph:

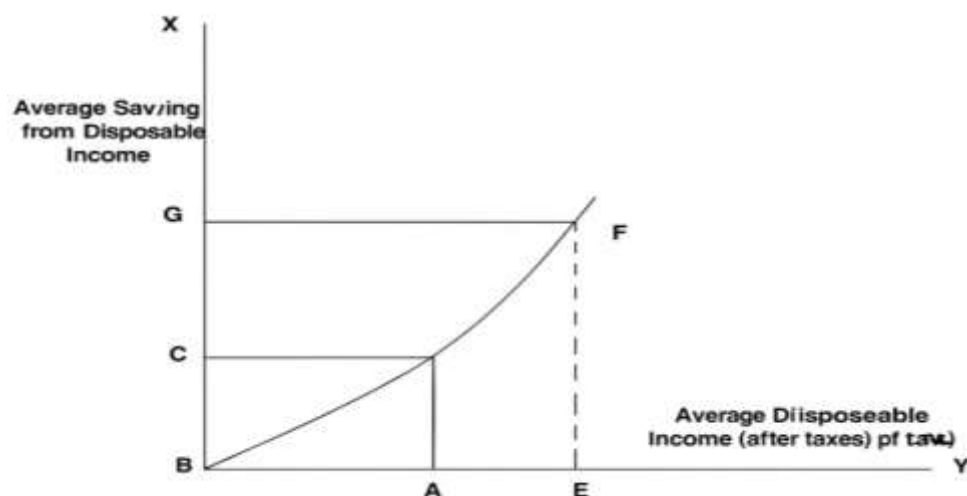


Figure (1): Wagner's Law

Source: Ali Lotfi, Public Finance: An Analytical Study, Ain Shams Library, Egypt, 1955, p. 55.

From the figure, point (D) represents the relationship between the average real income and the average real expenditures per individual in a given year (t), while point (F) represents this relationship after a certain period (). It is evident from the figure that the relationship between the two variables was AB/CB and changed during the year to EB/GB (t+1).

The diagram also shows that the distance EA is smaller than the distance GC , indicating that the average real expenditures per individual increase at a higher rate than the increase in average real income per individual ().

B. The Peacock-Wiseman theory

According to the Peacock-Wiseman theory, this theory is based on the hypothesis proposed by Peacock and Wiseman known as the displacement effect. It explains the reasons behind the divergence of the general agreement over time, which follows a pattern similar to leaps. This can be illustrated as follows:

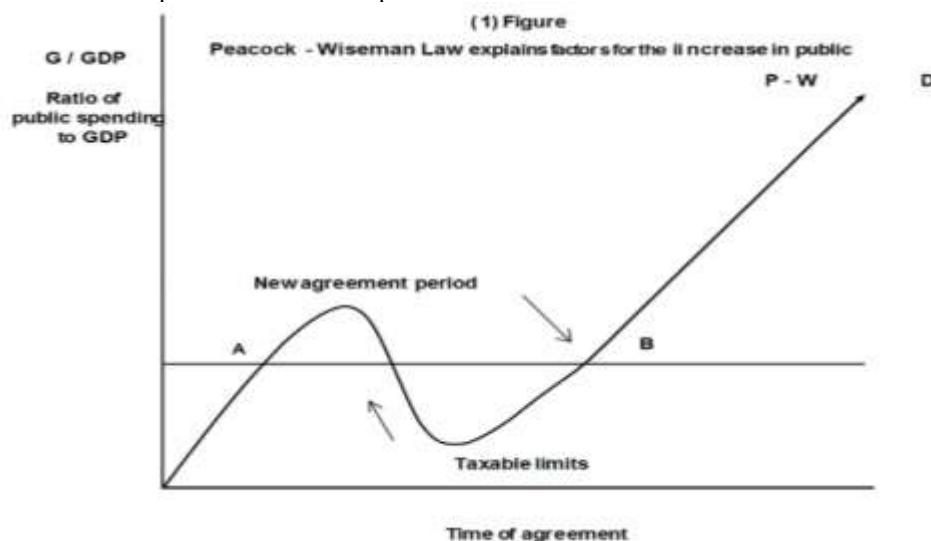


Figure 2: Peacock-Wiseman Law

Source: Ali Lotfi, Public Finance: An Analytical Study, Ain Shams Library, Egypt, 1955, p. 55.

The W-P curve represents the evolution of the ratio of public expenditure to Gross Domestic Product (GDP) over time. The figure illustrates that social disturbances lead to an increase in this ratio up to point A, driven by the displacement effect.

While the ratio is expected to move from point B to point C, the effects of concentration and inspection prevent this transition, causing the ratio to rise further to point D

The concentration effect reflects the government's desire to accelerate the process of economic development and achieve balance. Meanwhile, the inspection effect results from the expanded role of the state and its growing intervention in various sectors, in addition to wars and economic crises.

Third: Economic Growth

Interest in studying the phenomenon of economic growth began to increase, particularly after the Industrial Revolution in Western Europe. This period was marked by continuous technological advancements and capital accumulation, which led to fundamental transformations in societies—shifting from a primitive, traditional subsistence economy to a focus on the quantity and quality of production.

Their studies concentrated not only on the factors of production, but also on production relations.

From a capitalist perspective, economic growth was seen as the process of increasing the production of goods and services to meet society's needs, while the surplus was considered essential for achieving higher levels of welfare. The focus was placed on society as a whole, linked to macroeconomic variables such as total output and national income. Gross Domestic Product (GDP) and the trade balance were regarded as key indicators of growth, with any resulting surplus or deficit being particularly significant.

Economic studies and development thought literature have shown that the phenomenon of economic growth is structurally complex and requires a precise analysis of its fundamental factors. It is difficult to define economic growth with a single, unified definition within a specific time frame, as it is a dynamic process influenced by numerous and highly complex variables. The concept of economic growth often overlaps with several related but distinct terms, such as development, industrialization, expansion, evolution, and advancement, making it one of the concepts that require further clarification.

Perhaps the term most closely intertwined with growth is development, as both refer to the continuous increase in individuals' income share. For example, when the average income per capita rises in advanced industrial countries such as the United States, this is considered economic growth. On the other hand, when income per capita increases in less developed countries, it is considered a sign of economic development. However, development refers to the realized improvements in income per capita and is associated with structural changes in the financial sectors that contribute to the composition of GDP.

Thus, growth refers to an actual increase in real per capita income, not nominal income. Economic growth does not occur unless there is a sustained increase in income. For instance, when aid is provided to a country, resulting in a rise in real income for a year or two, it is considered a temporary increase rather than genuine growth.

In any case, economic growth is necessary, but not sufficient for economic development. What matters is not only the amount of growth but also how it is distributed, as this is essential for achieving economic welfare. According to the 1996 Human Development Report, growth may eliminate jobs rather than create them, and it may benefit the powerful instead of reducing poverty.

Others consider economic growth as an indicator of economic welfare, as it increases individuals' share of real national output. Some define it as the continuous increase in output accompanied by quantitative and qualitative changes in various economic and social structures.

Edward Shapiro defines economic growth as a quantitative variable that measures the change in the productive capacities of the economy. The more these capacities are utilized, the greater the quantity of goods and services available to meet society's needs. It is commonly measured based on the Gross Domestic Product (GDP) of a society.

Alfred Marshall focused on the concept of external economies in his definition of economic growth, where the availability of production factors in adequate quantities leads to a steady increase in national output, which consequently increases in per capita income. Thus, the foundation of economic growth lies primarily in the scientific and technological progress achieved by a country, in addition to population growth, savings, and capital stock (investment) as incentives for attracting more technological innovations. This indicates that the

optimal and efficient use of available natural resources, rather than their sheer quantity, is the key to economic growth.

On the other hand, Simon Kuznets defined economic growth as a process that ensures continuous increases in the production of material wealth and the expansion of a country's capacity to produce goods and services, accompanied by technological advancements and institutional and ideological adjustments.

Despite the multiple and overlapping definitions of economic growth, all agree that it is a fundamental indicator of economic welfare. Therefore, efforts should focus on increasing its rate as it leads to a rise in the average individual's access to goods and services and can elevate the living standards of society.

1. Types of Economic Growth

Various types of economic growth differ according to the mechanisms through which the economic system operates, including:

Automatic Growth

Automatic growth is the growth that occurs spontaneously due to the inherent forces of the national economy without government intervention. This type of growth requires a high degree of flexibility to enable the transition from one sector to another through the multiplier effect or the accelerator effect.

This type of growth is found in market economies and stems from the interaction of the economy's forces. It is typically slow, gradual, and sequential, despite occasionally experiencing short-term sharp fluctuations. This pattern has characterized advanced capitalist countries since the Industrial Revolution, where the phenomenon of automatic growth historically occurred as societies transitioned from feudalism to capitalism.

Automatic growth takes place in a series of processes that succeed one another, much like natural historical processes, and these processes can be summarized in four main points:

- a. The progression in the social division of labor, which transitioned from the agricultural stage to large-scale industrial mechanization, passing through manual industry.
- b. The process of capital accumulation, which initially focused on serving foreign trade during the era of

merchants when trade was the source of state power, and later shifted to serve the industry.

c. The production of commodities aimed not at satisfying the producer's own needs but at selling in markets, utilizing monetary exchange instead of barter.

d. The formation of the domestic market, where each product has a market composed of supply and demand, thus establishing the foundation for the formation of a broad national market.

Transient or Unstable Growth

This is a temporary growth that lacks continuity, occurring due to external factors that quickly dissipate along with the growth they caused. This type of growth is common in oil-exporting developing countries as a result of sudden changes in their trade, such as spikes in energy or raw material prices, which lead to a surge in the economic growth rate. However, its impact is limited in the environment where it originates due to the lack of interaction with the economic and social forces in developing countries.

Directed or Planned Growth

This type of growth can only be achieved through comprehensive planning of available economic resources and societal needs. The strength and effectiveness of this type depend on the planners' capabilities, the suitability of the formulated economic plans to the economic reality, the efficiency of implementation and follow-up, and the participation of the general public at all levels in the planning process.

Achieving this type of growth requires fundamental changes in institutions and the legal environment to establish a central economic authority with the competence to make decisions regarding the management and mobilization of economic resources by the interests of society.

Section Two: Estimating the Long-Term Relationship Between Money Supply (M2), Public Expenditure, and Economic Growth During the Period Under Study

First: Augmented Dickey-Fuller (ADF) Test

Table (1) presents the results of the Augmented Dickey-Fuller (ADF) test for the economic variables under study (Gross Domestic Product, Public Expenditure, and Broad Money Supply - M2) in their logarithmic forms and according to the three models (with constant, with constant and trend, and without both). The table shows that the variables are non-

stationary at level, as the calculated tau (t) values are greater than their corresponding critical values at the 1%, 5%, and 10% significance levels. Therefore, the null hypothesis cannot be rejected.

However, all the series are non-stationary at the level and become stationary at their first differences. The test applied to the first differences of the non-stationary variables at the level revealed no presence of a unit root, since the calculated tau (t) values were lower than the corresponding critical values.

Accordingly, it can be concluded that the time series under study are non-stationary at the level but become stationary at first differences, meaning each variable is individually integrated of order one, as long as the first difference of each is integrated of order zero.

These results are consistent with standard econometric theory, which suggests that most economic variables are non-stationary at the level but become stationary after first differencing.

Table (1) Results of the Dickey-Fuller (ADF) Unit Root Test for Macroeconomic Variables with Gross Domestic Product (GDP) over the Time Series Period

First Difference			Level			Time Series
None	Constant and Trend	Constant Only	None	Constant and Trend	Constant Only	
-5.906998	-5.735576	-5.828741	-0.445083	-2.565235	-2.146070	L Y
-2.660720	-4.374307	-3.724070	-2.656915	-4.356068	-3.711457	Critical Value 1%
-1.955020	-3.603202	-2.986225	-1.954414	-3.595026	-2.981038	Critical Value 5%
-1.609070	-3.238054	-2.632604	-1.609329	-3.233456	-2.629906	Critical Value 10%
-6.572909	-7.066096	-6.429671	-0.940380	-2.891170	-1.490488	L G
-2.660720	-4.374307	-3.724070	-2.660720	-4.396068	-3.724070	Critical Value 1%
-1.955020	-3.603202	-2.986225	-1.955020	-3.595026	-2.986225	Critical Value 5%
-1.609070	-3.238054	-2.632604	-1.609070	-3.233456	-2.632604	Critical Value 10%
-5.687632	-3.771299	-3.745058	-1.256718	-1.525576	-1.677525	M₂
-4.374307	-2.660720	-3.724070	-2.656915	-4.356068	-3.711457	Critical Value 1%
-3.603202	-1.955020	-2.986225	-1.954414	-3.595026	-2.981038	Critical Value 5%
-3.238054	-1.609070	-2.632604	-1.609329	-3.233456	-2.629906	Critical Value 10%

Source: Researcher's work based on the statistical software (Eviews 11).

Secondly: Kwiatkowski–Phillips–Schmidt–Shin (KPSS) Test

When conducting the Kwiatkowski–Phillips–Schmidt–Shin (KPSS) unit root test for the variables included in the model (Gross Domestic Product Y, Government Expenditure G, and Broad Money Supply M₂), according to the levels (constant, constant and trend, and none), it was found that these variables are non-stationary at their levels but stationary at their first differences, as shown in Table (2).

The results indicate that the estimated test statistics Lm are smaller than the critical values at significance levels of 10%, 5%, and 1%. This implies that the null hypothesis $H_0: \beta=0$ cannot be rejected, indicating the absence of a unit root in the series (i.e., the time series are stationary).

Therefore, the unit root tests for the time series of the variables under study at their levels and first differences show that these series move together over time, suggesting the existence of a long-term equilibrium relationship.

Table (2) Results of the Kwiatkowski–Phillips–Schmidt–Shin (KPSS) Unit Root Test for the Macroeconomic Variables under Study for the Period (1988 – 2014)

First Difference			Level			Time Series
None	Constant and Trend	Constant Only	None	Constant and Trend	Constant Only	
-5.906	-5.738	-5.828	-0.3307	-2.356	-2.142	L Y
-2.6607	-4.374	-3.7240	-2.656	-4.35606	-3.711	Critical Value 1%
-1.955	-3.6032	-2.9862	-1.954	-3.59502	-2.981	Critical Value 5%
-1.609	-3.238	-2.632	-1.609	-3.2334	-2.629	Critical Value 10%
-6.572	-7.245	-6.429	-1.215	-2.935	-1.898	L G
-2.6607	-4.374	-3.724	-2.656	-4.3560	-3.7114	Critical Value 1%
-1.9550	-3.603	-2.986	-1.954	-3.595	-2.981	Critical Value 5%
-1.609	-3.238	-2.632	-1.609	-3.233	-2.629	Critical Value 10%
-3.842	-5.644	-3.818	-1.271	-1.851	-1.741	LM₂
-2.6607	-4.374	-3.724	-2.656	-4.356	-3.711	Critical Value 1%
-1.9550	-3.603	-2.986	-1.954	-3.595	-2.981	Critical Value 5%
-1.609	-3.238	-2.632	-1.609	-3.233	-2.699	Critical Value 10%

Source: Researcher's work based on the statistical software (Eviews 11).

Thirdly: VAR Test (Vector Autoregression Test)

Before conducting the cointegration test to examine the existence of a long-term equilibrium relationship among the variables, it is necessary to determine the optimal lag length.

The optimal number of lags was identified using the Vector Autoregression (VAR) model, which includes four criteria: Akaike Information Criterion (AIC), Schwarz Criterion (SC), Final Prediction Error (FPE), and Hannan-Quinn Criterion (HQ).

The lag lengths for the variables under study can be observed from the results presented in the following table:

Table (3)

VAR Lag Order Selection Criteria						
Endogenous variables: Y G M2						
Exogenous variables: C						
Date: 10/23/24 Time: 15:04						
Sample: 1988 2014						
Included observations: 25						
HQ	SC	AIC	FPE	LR	LogL	Lag
59.84240	59.94809	59.80183	1.88e+22	NA	-744.5229	0
57.56600*	57.98879*	57.40373	1.72e+21	65.48014*	-705.5466	1
57.57942	58.31930	57.29544*	1.61e+21*	14.90910	-695.1930	2

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Source: Researcher's work based on the statistical software (Eviews 11).

Fourth: Johansen–Juselius Test Table

Table 4: Results of the Cointegration Test Using the Johansen–Juselius Method

1- λ _trace (Trace Test)					
Relationships	Eigenvalues	Critical Value	λ _trace	Alternative Hypothesis	Null Hypothesis
LY,LG,LM2	0.665074	29.79707	35.72534	$r > 0$	$r = 0$
	0.186387	15.49471	8.379213	$r > 1$	$r \leq 1$
	0.120937	3.841466	3.222458	$r > 2$	$r \leq 2$
- λ max — Maximum Eigenvalue Test2					
Relationships	Eigenvalues	Critical Value (5%)	λ _max	Alternative Hypothesis	Null Hypothesis
LY,LG,LM2	0.665074	21.13162	27.34613	$r = 1$	$r = 0$
	0.186387	14.26460	5.156755	$r = 2$	$r = 1$
	0.120937	3.841466	3.222458	$r = 3$	$r = 2$

Source: Researcher's work based on the statistical software (Eviews 11).

Unit root tests have confirmed that the time series of the variables in the first equation — Government Expenditure G, Money Supply M, and Gross Domestic Product Y — contain a unit root at their levels and become stationary after taking their first differences. This indicates that these variables are integrated of order one, $I(1)$.

This implies that the time series of the studied variables are integrated of the same order, suggesting the possibility of the existence of a cointegration relationship among them.

Cointegration has an important economic meaning, as it indicates the existence of a long-term equilibrium relationship between the series.

The cointegration will be tested using the Johansen–Juselius methodology, which is considered one of the best methods for estimating the cointegration vector and validating its properties. It can be applied to models with more than two variables as well as to models with only two variables, allowing for the mutual interaction effects between the variables under study.

Table (4) presents the results of the Trace Test (λ_{trace}) and the Maximum Eigenvalue Test (λ_{max}) used to analyze the long-run relationship among government expenditure, money supply, and gross domestic product.

The Trace Test (λ_{trace}) indicates that the computed maximum likelihood value is 35.725, which exceeds the critical value of 29.797 at the 5% significance level. This result leads to the rejection of the null hypothesis $H_0: r=0$, which states that there is no cointegrating vector.

Accordingly, it can be concluded that there is at least one cointegrating equation among the variables mentioned above.

The Maximum Eigenvalue Test (λ_{max}) also confirms the existence of a single cointegrating vector. Table (4) shows that the computed λ_{max} value is 27.346, which is greater than the critical value of 21.131 at the 5% significance level.

Therefore, the null hypothesis $H_0: r=0$, which states that there is no cointegrating vector, is rejected, and the alternative hypothesis $r=1$, which suggests the presence of a single cointegrating vector, is accepted. However, the null hypothesis $r \leq 1$ cannot be rejected at the 5% significance level. The Trace Test indicates that there is no evidence for the existence of a second cointegrating vector.

The results show that the computed value of the maximum likelihood statistic is 8.379, which is less than the critical value of 15.494 at the 5% significance level. This implies that the null hypothesis of at most one cointegrating vector ($r = 1$) cannot be rejected, while the alternative hypothesis is rejected.

Therefore, only one cointegrating equation exists, which suggests the presence of a long-run equilibrium relationship in one direction among Gross Domestic Product (Y), Government Expenditure (G), and Broad Money Supply (M).

Fifth: Vector Error Correction Model (VECM) Test

Table (5): Results of the Vector Error Correction Model

Dependent Variable: D(Y)				
Method: Least Squares				
Date: 10/23/24 Time: 13:55				
Sample (adjusted): 1991 2014				
Included observations: 24 after adjustments				
$D(Y) = C(1)*(Y(-1) + 6.50180145946*G(-1) - 8.41799083014*M2(-1) - 15155.8635027) + C(2)*D(Y(-1)) + C(3)*D(Y(-2)) + C(4)*D(G(-1)) + C(5)*D(G(-2)) + C(6)*D(M2(-1)) + C(7)*D(M2(-2)) + C(8)$				
Prob.	t-Statistic	Std. Error	Coefficient	
0.5738	-0.574272	0.142388	-0.081770	C(1)
0.3419	-0.979423	0.236995	-0.232119	C(2)
0.2999	1.071382	0.294255	0.315260	C(3)
0.5523	0.607097	1.068511	0.648689	C(4)
0.7497	0.324605	0.841750	0.273236	C(5)
0.1765	1.413979	1.463338	2.069129	C(6)
0.2862	-1.103410	1.272032	-1.403573	C(7)
0.8825	0.150181	2050.990	308.0194	C(8)
21.43095	Akaike info criterion		9565.666	S.E. of regression
21.82363	Schwarz criterion		1.46E+09	Sum squared resid
21.53513	Hannan-Quinn criter.		-249.1714	Log likelihood
			1.664926	Durbin-Watson stat

Source: Researcher's work based on the statistical software (Eviews 11).

After confirming the existence of cointegration, the next step involves specifying the Vector Error Correction Model (VECM), which has the ability to test and estimate both the short-term and long-term relationships among the variables.

From the results shown in the table above, it is observed that the estimated coefficient of the error correction term (C1) is negative and statistically significant at the 1% level, with a value of (−0.0817).

This indicates the presence of a long-run relationship between money supply and government expenditure on one hand, and between government expenditure and gross domestic product on the other.

In other words, changes in both government expenditure and money supply help explain the variations in gross domestic product.

The coefficient C8 indicates the existence of a short-term relationship among the variables. From this, it can be concluded that there is both a short-run and long-run equilibrium relationship between broad money supply (M2), government expenditure, and gross domestic product (GDP).

Section Three: Forecasting the Path of the Variables Under Study Using the VAR Model and the Vector Error Correction Model (VECM)

Prediction Using the Vector Autoregression (VAR) Model

VAR models provide a very simple forecasting method and are closer to economic reality because their internal and explanatory variables interact with each other. Therefore, they must be incorporated into the economic system. Dealing with the components of VAR simultaneously means that the model becomes more concise and involves fewer lags, since prior information from the variables is utilized. Nevertheless, forecasts from the VAR model are accurate only under certain conditions, which are difficult to specify precisely to avoid errors. Moreover, as the number of lags increases, the number of parameters to be estimated also increases, resulting in fewer degrees of freedom.

The forecasting process for the macroeconomic variables under study (Gross Domestic Product, money supply M2, and public expenditure) requires predicting the response functions of these variables over the study period. This is necessary to understand the direction of change in the expected values obtained from the estimated models and to determine whether these changes follow the same trend as the phenomenon under investigation during the study period.

First: Forecasting Using the Vector Error Correction Model (VECM).

The Error Correction Model (VECM) was used as one of the forecasting methods. In this approach, the explanatory variables are first forecasted, then substituted into the estimated relationship, allowing for the prediction of expected changes in the dependent variable. This method results in obtaining unbiased forecasts, as the mean forecast error is zero. However, this does not necessarily imply that the forecasts exactly match the actual values of the variables due to errors inherent in both the forecasts and the observed data.

When plotting the actual and predicted values of the macroeconomic variables, including the Gross Domestic Product (GDP) in its logarithmic form over the period (1988–2020), the graphical representations show that the predicted values exhibited a fluctuating pattern between rises and falls as follows:

Figure 6: Time evolution of the actual and predicted values of the GDP for the period (1988–2020).

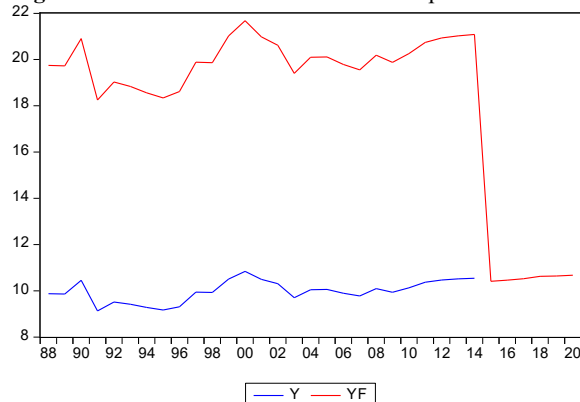


Figure 7: Time evolution of the actual and predicted values of public expenditure for the period (1988–2020).

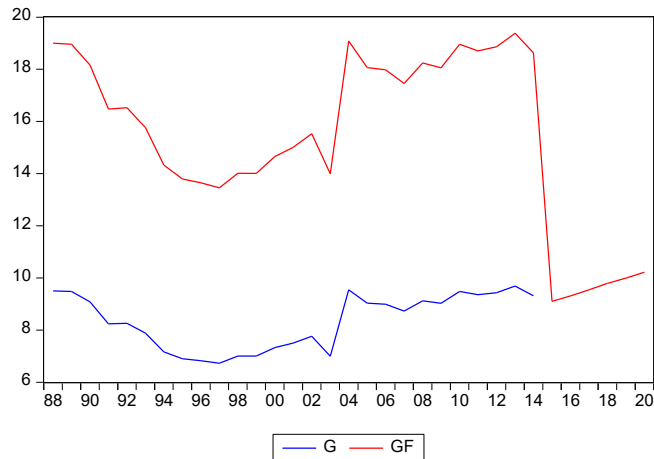
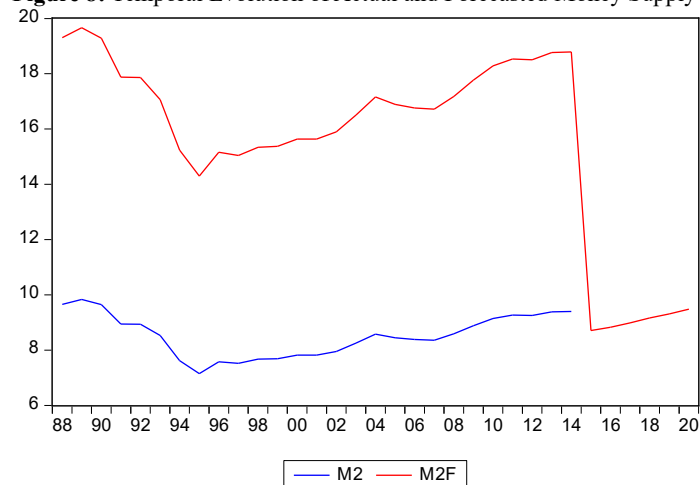


Figure 8: Temporal Evolution of Actual and Forecasted Money Supply Values for the Period (1988–2020).



Second: Forecasting Using the Vector Autoregression (VAR) Model.

After confirming the predictive capability of the variables, we can now use the VAR model for forecasting, which will illustrate the direction of the economic variables over the period (1988–2020). The trend of the economic variables has been demonstrated using graphical representations that show the direction of the predicted values of the variables based on the Vector Autoregression (VAR) model, as follows:

Figure 9: Temporal Evolution of Gross Domestic Product for the Period (1988–2020).
Y (Baseline)

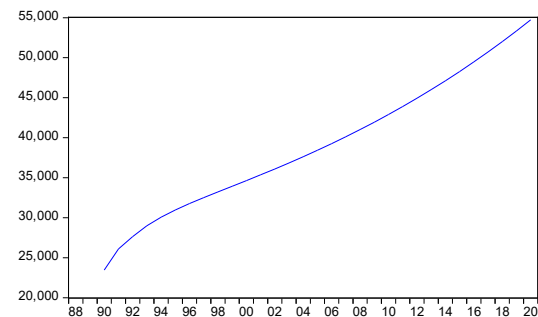


Figure 10: Temporal Evolution of Public Expenditure for the Period (1988–2020).

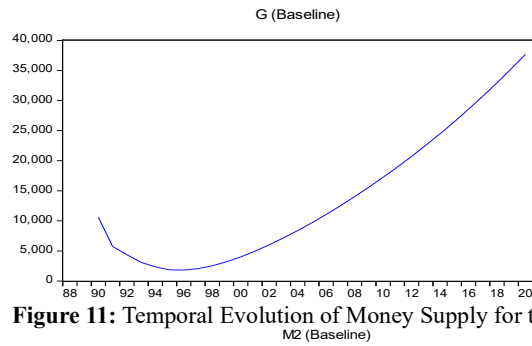


Figure 11: Temporal Evolution of Money Supply for the Period (1988–2020).

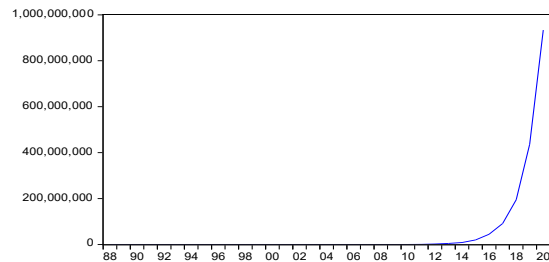


Table 6: Logarithmic Values of Macroeconomic Variables for the Period (1988–2014).

Year	Y	G	m2
1988	9.874687	9.500245	9.652208
1989	9.862582	9.480992	9.83437
1990	10.45432	9.082042	9.643906
1991	9.125942	8.239606	8.939915
1992	9.514976	8.262058	8.932879
1993	9.418853	7.878838	8.531483
1994	9.280374	7.162334	7.616315
1995	9.168838	6.897477	7.147375
1996	9.30698	6.823546	7.578813
1997	9.942059	6.726617	7.520684
1998	9.930645	7.007218	7.671095
1999	10.5115	7.004589	7.688177
2000	10.83929	7.327605	7.817277
2001	10.49258	7.503605	7.818547
2002	10.30888	7.766284	7.948284
2003	9.700057	6.997146	8.251997
2004	10.04877	9.543447	8.579898
2005	10.05727	9.031954	8.446289
2006	9.892802	8.991347	8.38108
2007	9.777617	8.728351	8.358195
2008	10.09407	9.122011	8.59072
2009	9.938537	9.028163	8.882533
2010	10.1298	9.480433	9.142559
2011	10.36876	9.353735	9.266491
2012	10.46678	9.432526	9.252241
2013	10.51263	9.690365	9.383853
2014	10.54235	9.313513	9.395859

Table 7: Forecasted Logarithmic Values of Macroeconomic Variables for the Period (2015–2020).

Year	Y	G	m2
2015	10.40836	9.099717	8.705544
2016	10.46224	9.306453	8.824584
2017	10.51855	9.545649	8.984402
2018	10.62697	9.788811	9.16079
2019	10.64115	9.994433	9.310783
2020	10.67674	10.21913	9.480527

Conclusions

1. Economic growth is one of the most important indicators for measuring the progress of countries and achieving economic development.
2. The Iraqi economy has undergone different economic phases, each characterized by distinctive features that set it apart from other phases. This, in turn, has reflected on the overall macroeconomic policy and its economic components in particular. These phases reached their peak in terms of rapid transitions and fluctuations in their structures during the study period.
3. The relationship between Gross Domestic Product (GDP) and money supply is bidirectional causal; that is, GDP explains changes in money supply and vice versa. However, the relationship between GDP and public expenditure is not directly causal but explains changes in GDP through its effect on money supply (M2), which in turn explains variations in GDP.
4. The results of the Unit Root tests indicated that the time series data for the economic variables under study (GDP, public expenditure, and money supply) are non-stationary at their levels but become stationary at first differences according to the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (P-P) test. This implies that the time series under study are integrated of order one.
5. The cointegration test, using the Engle-Granger two-step method, indicates the existence of a long-term equilibrium relationship among all the variables under study and GDP.
6. The Error Correction Model (ECM) tests showed that the error correction parameters in the estimated equations are negative and statistically significant, confirming the existence of long-run causality running from GDP to public expenditure and money supply, with an acceptable speed of adjustment towards the equilibrium value.

The study, based on causality tests, concluded the presence of a positive bidirectional relationship among the variables under study. The results revealed a two-way causal relationship between GDP and money supply in the short run, and a one-way causal relationship running from public expenditure to money supply, but not vice versa.

Recommendations

1. Work on improving the structure of the Iraqi economy and increasing its production flexibility in an attempt to achieve stable rates for its economic variables.
2. Expand the volume of foreign direct investments alongside the private sector to support and stimulate

real economic growth, achieving genuinely high rates rather than superficial increases.

3. Improve public expenditure management by restructuring its components in a way that raises the share of investment spending and directs it toward sectors that yield economic returns and benefits, which in turn reflect positively on growth rates.
4. Strive to achieve balance in the money market between supply and demand to eliminate imbalances that lead to disruptions in the local goods and services market and the balance of payments, and consequently in net foreign assets. Additionally, efforts should be made to create equilibrium between the money market and the goods market to avoid and address inflationary gaps.
5. The ultimate and sole objective of monetary policy in the Iraqi economy should be price stability, considering that achieving other objectives does not guarantee reliable results.
6. Develop advanced standard models to measure the complex relationships between internal and external macroeconomic variables, and deepen applied research and studies that rely on modern quantitative measurement techniques focusing on the practical aspect (data and results) as the basis for analysis.

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Impact of International Migration on Poverty Reduction and Private Facility Provision in Ogbadibo Local Government Area, Benue State, Nigeria

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Abstract. This study examined the impact of international migration on poverty reduction and private facility provision in Ogbadibo Local Government Area, Benue State, Nigeria. It explored how remittances from abroad influence household welfare, community infrastructure, and spatial development. Data were obtained through a structured questionnaire administered to ninety-seven households and complemented by field observation. Descriptive and inferential analyses, including Spearman's rank correlation and multiple regression, were used to test the relationships among key variables. Findings revealed that international migration significantly contributed to poverty reduction through both monetary and non-monetary remittances. Remittances enhanced access to education, healthcare, and improved housing, while also supporting the establishment of privately funded facilities such as boreholes, schools, and small clinics. However, migration benefits were unevenly distributed, as only households with the means to finance migration experienced direct gains. Poverty emerged as the main driver of migration, reflecting both economic necessity and aspirations for upward mobility. The study also identified negative consequences, including labour shortages, dependency, and unequal development among communities. The results highlight the dual role of international migration as both a livelihood strategy and a catalyst for local spatial transformation. The study concludes that when properly integrated into local planning frameworks, remittance inflows can complement public infrastructure delivery and foster inclusive regional development. It recommends institutional coordination between government and diaspora networks to ensure that migration-driven development is equitable, productive, and sustainable.

Keywords: International Migration, Remittances, Poverty Reduction, Private Facility Provision, Spatial Development.

1. Introduction

Poverty remains one of the most persistent development challenges in sub-Saharan Africa. It extends far beyond the absence of income and manifests in deprivation across health, education, infrastructure, and opportunity. In Nigeria, the condition has deepened in both scope and intensity, affecting rural and urban populations alike. The World Bank (2023) estimates that over 40 percent of Nigerians live below the national poverty line, while another quarter remains vulnerable to economic shocks. These realities have reinforced the drive towards migration as individuals seek opportunities beyond their local environments in pursuit of improved livelihoods.

Over the past two decades, international migration has evolved into one of the most significant social and economic forces shaping the Nigerian landscape. It represents both a reaction to poverty and a pathway for generating capital and stimulating development at household, community, and regional levels (Adepoju, 2021). Remittances from migrants abroad have become one of the country's most reliable sources of foreign exchange, surpassing foreign direct investment and official development assistance in several years (World Bank, 2020). While these inflows are usually discussed at the national scale, their localised implications particularly how they shape the physical and social fabric of communities remain underexplored. At the micro level, remittances influence patterns of poverty reduction, household welfare, and facility provision in ways that speak directly to spatial planning and local development.

Remittances can transform communities by enabling access to health services, education, and small-scale infrastructure. These effects are most visible in rural and peri-urban areas where state presence is weak and private initiatives fill the gap (De Haas, 2007). In such settings, inflows from migrants abroad have supported the construction of private schools, clinics, boreholes, and modest road improvements. These efforts, often initiated by families or community associations with diaspora ties, illustrate how transnational resources extend beyond household consumption to fund local collective goods (Obboh & Osirike, 2020; Obboh & Egharevba, 2025). Private facility provision therefore emerges as a crucial yet under-recognised dimension of the migration–development relationship.

Ogbadibo Local Government Area (LGA) of Benue State offers a clear context for examining these linkages. The area is largely agrarian, with limited government owned industrial and infrastructural presences. Over the years, poor economic conditions and limited employment opportunities have triggered considerable outmigration, particularly among the youth seeking education and work abroad. The steady flow of remittances into the area now sustains a range of local activities, from household consumption to investments in small enterprises and private amenities. In several settlements, new boreholes, renovated schools, and small clinics stand as physical evidence of this financial inflow. Yet, despite such transformations, empirical research systematically connecting migration, poverty reduction, and private facility provision remains scarce. Most existing works focus on macroeconomic effects, remittance volumes, or the problem of brain drain (Olayiwola & Osabuohien, 2019; Onah, Azuogu, & Ugwu, 2022). Very few attempts to locate these dynamics within the framework of urban and regional planning, or to interpret how remittances reshape local geographies and private/informal systems of facility provision.

This study investigates the impact of international migration on poverty reduction and private facility provision in Ogbadibo LGA, Benue State. It examines how remittances alleviate poverty, improve household wellbeing, and contribute to the development of privately financed facilities that complement or substitute for public infrastructure. It also explores the extent to which poverty serves as a push factor driving migration and how diaspora resources act as an alternative development mechanism in the absence of adequate state intervention. By situating these issues within the discourse of regional planning, the study underscores migration’s dual function as a livelihood

strategy and a spatial force that shapes the built environment and redistributes access to basic services.

The significance of the study lies in extending the migration–development debate beyond economics to include the geography of facilities and the spatial outcomes of remittance use. It demonstrates how private investments financed through remittances contribute to local development, sometimes achieving what formal planning frameworks fail to deliver. This perspective is particularly relevant for planners and policymakers seeking to understand how informal financial flows can be aligned with territorial planning objectives. Mapping and integrating diaspora-driven projects into regional plans can prevent duplication, promote equitable distribution, and strengthen accountability in local service delivery. For scholars, the research also contributes to the growing recognition that migration is not only a demographic process but a spatial one, capable of transforming settlement patterns, land use, and community hierarchies.

The research focuses on Ogbadibo LGA and draws primarily on primary data collected from households within the area, supported by relevant secondary materials. It concentrates on international migration, defined as the movement of individuals across national borders, and examines the outcomes of remittances over a recent five-year period (2018–2023). The analysis is limited by the availability and reliability of self-reported data, yet the use of statistical tools and triangulation enhances the credibility of findings. The empirical evidence reveals how migration and remittance flows alter the socioeconomic structure of rural and semi-urban communities, create new forms of private infrastructural development, and influence planning priorities.

2. Theoretical Framework

This study is anchored on three interrelated theories that explain the dynamic relationship between international migration, poverty reduction, and private facility provision: The New Economics of Labour Migration (NELM), the Cumulative Causation Theory of Migration, and Structuration Theory. Each offers a distinct but complementary insight into how migration decisions are made, how remittances circulate and influence local economies, and how these processes translate into spatial development outcomes.

2.1 The New Economics of Labour Migration (NELM)

The New Economics of Labour Migration emerged in the early 1980s as a critique of the classical neoclassical migration theory, which viewed migration as an individual decision driven by wage differentials between countries. The neoclassical model, rooted in the work of Todaro (1969) and Harris and Todaro (1970), treated migration purely as a function of income maximisation and labour market equilibrium. Oded Stark and David Bloom (1985) challenged this perspective and developed NELM as a household-level theory. The central assumption of NELM is that migration is not an isolated individual act but a collective household strategy aimed at reducing risk and overcoming market imperfections. Households in developing countries often face missing or inefficient credit and insurance markets, making it difficult to finance production, education, or health investments. By sending a member abroad, the household diversifies its income sources and creates access to foreign earnings, which serve as an informal insurance mechanism (Taylor, 1999). Remittances are therefore conceptualised as contractual obligations between migrants and their families. A reciprocal flow that supports the family's economic and social stability.

Previous studies have applied NELM to explain remittance behaviour and rural development outcomes. Lucas and Stark (1985) used the theory to show how remittances in Botswana and Lesotho acted as risk-sharing transfers within extended families. De Haas (2007) extended the framework to North Africa, demonstrating that remittances often substitute for missing state services and provide the financial capital for small-scale investments, including housing and education. Olayiwola and Osabuohien (2019) applied similar reasoning to Nigeria, showing that remittance inflows enhance household consumption, investment, and access to private welfare services.

In the context of the present study, NELM provides the foundation for understanding the motivations behind international migration from Ogbadibo LGA and the economic logic of remittance use. The theory explains why households channel remittances into private facility provision such as constructing boreholes, private schools, and health centres to compensate for inadequate public infrastructure. It helps to interpret migration as a rational household response to poverty and institutional failure, turning external migration into a localised form of development intervention.

2.2 Cumulative Causation Theory of Migration

The Cumulative Causation Theory, first proposed by Gunnar Myrdal in 1957 and later refined by Douglas Massey (1990), expands on how migration perpetuates

itself over time. Myrdal originally used the term to describe economic backwash and spread effects in regional development the idea that growth in one area can generate conditions that either reinforce or reverse inequality elsewhere. Massey adapted this idea to migration, arguing that each act of migration alters the social and economic context in ways that make further migration more likely. The theory rests on several key assumptions. First, migration is self-reinforcing: as networks develop, the costs and risks of migration decline. Second, remittances, once introduced, modify local economies by creating new consumption patterns, business opportunities, and investments. Third, these local transformations feed back into the migration system, as successful migrants influence others to follow similar paths (Massey et al., 1993).

Cumulative Causation Theory has been used extensively in explaining migration-development feedback loops. For example, Taylor (1999) and De Haas (2010) found that remittances in Mexico and Morocco led to a cycle of investment in housing and social facilities, which, in turn, raised the social status of migrant households and encouraged further migration. In Nigeria, Okpara and Odion (2020) observed that rural communities in Anambra State benefited from continuous inflows of diaspora remittances that funded schools, churches, and healthcare centres, reinforcing the social prestige associated with migration.

Applied to Ogbadibo LGA, the Cumulative Causation Theory clarifies why migration has become a persistent feature of local livelihood systems. As early migrants send remittances that improve living conditions through better housing and private facilities, they create social and aspirational models that encourage others to migrate. The resulting inflows of money and ideas reshape the local landscape, increase property development, and enhance access to private services. In this study, the theory helps to interpret the self-sustaining relationship between migration, poverty reduction, and facility provision — a process that effectively redistributes resources and development potential within the region.

2.3 Structuration Theory

Structuration Theory, developed by Anthony Giddens (1984), provides a sociological and spatial perspective that complements the economic reasoning of NELM and Cumulative Causation. Giddens sought to bridge the divide between structure and agency in social theory by arguing that human practices are both shaped by and reproduce social systems. The key concept is the “duality of structure”: structures such as

institutions, norms, and spatial arrangements both constrain and enable individual action. Through daily practices, actors reproduce or transform these structures over time.

The theory assumes that social and spatial realities are produced through interaction. People act within the limits of rules, power, and resources, but their actions cumulatively reshape the context in which they live (Giddens, 1984). In urban and regional planning, structuration has been used to explain how community initiatives, local networks, and informal systems contribute to spatial change outside formal state planning (Healey, 1999). Migration and remittance use, when viewed through this lens, represent acts of spatial agency. Migrant households use remittances to construct buildings, fund local facilities, and improve community infrastructure, thereby altering the built environment and reshaping social relations within it.

Several researchers have applied structuration in migration and development research. Bakewell (2022) used it to explain how African transnational communities negotiate power and identity through remittance-financed projects. Similarly, Zoomers and Van Westen (2011) argued that local actors mobilise trans-local resources to produce new development spaces that challenge state-dominated planning paradigms. These perspectives emphasise that development is not only driven by economic transfers but also by social action and spatial agency.

In this study, Structuration Theory is used to interpret private facility provision as a manifestation of social

agency operating within structural constraints. Migrant families in Ogbadibo act within the limitations of weak governance and poor infrastructure, yet through remittance investment, they transform their local environment. The new schools, clinics, and boreholes financed by migrants embody both material improvement and symbolic agency evidence that local actors can shape development trajectories even in the absence of effective state intervention. Structuration Theory thus frames the study's spatial interpretation of migration, linking human action, remittance flows, and the transformation of the physical environment.

2.4 Synthesis and Application to the Study

Taken together, these three theories offer a coherent framework for analysing the complex relationship between migration, poverty reduction, and private facility provision. The NELM explains household motivation and remittance use; the Cumulative Causation Theory explains how migration becomes self-sustaining and spatially transformative; and Structuration Theory situates these processes within the interplay of social agency and structural context. The combination of these perspectives allows this study to treat migration as both an economic and spatial process one that alleviates poverty while generating decentralised infrastructural development in Ogbadibo LGA. See Figure 1 for the linkages between theories of migration and the process of poverty reduction and private facilities provision.

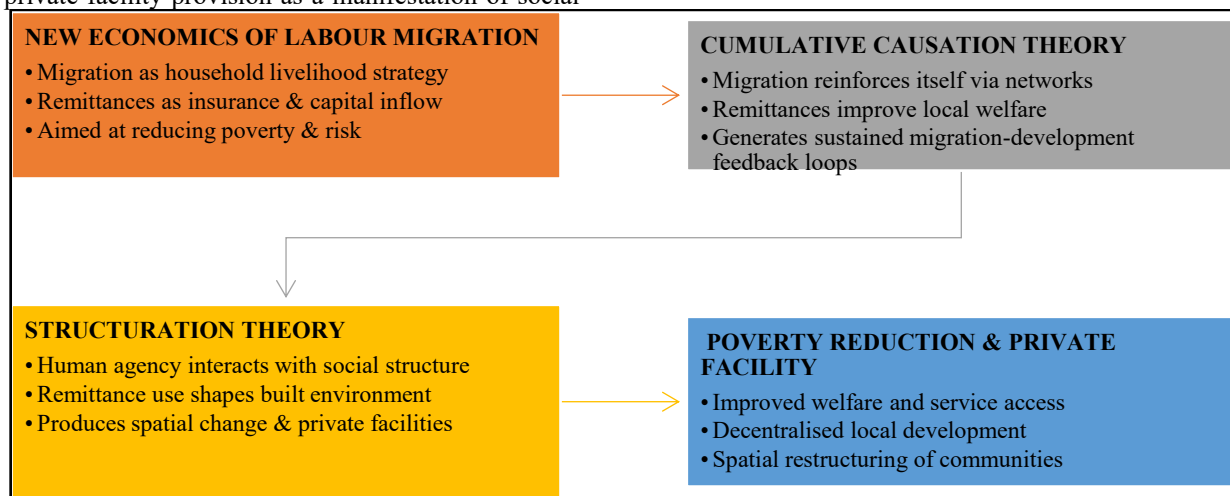


Figure 1: Theoretical Framework Showing the Linkages Between Migration Theories and the Process of Poverty Reduction and Private Facility Provision.

Source: Author's Abstraction, 2025.

The framework in Figure 1 unfolds as a progression from economic motivation to social feedback and ultimately to spatial transformation. The NELM begins by framing migration as a calculated household response to poverty, risk, and market imperfections. Here, remittances function primarily as economic resources aimed at stabilising family welfare and compensating for institutional deficiencies. The Cumulative Causation Theory then extends this logic by introducing a social dimension: remittance flows and migration networks interact over time to create feedback mechanisms that reinforce further migration, reshape aspirations, and stimulate local economic activities. These social linkages convert remittances from mere financial transfers into instruments of community investment and collective advancement. Structuration Theory completes the sequence by situating these economic and social processes within the spatial realm. It highlights how human agency, operating within structural constraints, translates remittance resources into tangible physical outcomes such as private schools, boreholes, clinics, and improved housing. Through this lens, the use of remittances becomes an act of spatial production transforming social capital into built form. Together, these theories reveal migration as a continuum: a process that begins in economic necessity, evolves through social interaction, and culminates in the reconfiguration of local space and infrastructure.

3. Literature review

Research on migration and development increasingly treats remittances as a central mechanism through which transnational mobility affects origin communities. Two broad strands dominate the literature. The first asks whether remittances reduce poverty and improve human capital at the household level. The second examines whether and how remittances are channelled into community-level investments and private facility provision that change local spatial configurations. This review summarises empirical findings and conceptual debates from 2000 to 2024 and highlights gaps the present study addresses.

Early and mid-2000s work established remittances as a stable and sizeable source of external finance for low- and middle-income countries. World Bank analyses documented substantial growth in remittance volumes and emphasised their counter-cyclical character during crises (World Bank, 2006; World Bank, 2020). Empirical studies then turned to micro-level outcomes. Several household surveys and quasi-experimental studies show that remittances raise consumption, smooth income shocks, and increase

expenditures on health and education (Yang, 2004; World Bank, 2016; Oboh & Osirike, 2017; Oboh & Osirike, 2020; Oboh & Egharevba, 2025). These results support the argument that remittances have a direct poverty-mitigating effect by improving household purchasing power and human capital outcomes. The World Bank's reviews and migration briefs continue to position remittances as a more reliable flow than official aid in many contexts (World Bank, 2020; World Bank, 2023).

At the same time, scholars emphasised heterogeneity in remittance impacts. Some studies highlight limited multiplier effects when remittances are used mainly for consumption rather than productive investment (de Haas, 2007; Taylor, 2008). Others warn of dependency risks: persistent inflows can reduce local labour supply or dampen incentives for formal employment and collective action (De Haas, 2007; Benedum, 2024). Research also shows institutional and contextual conditions matter: remittances are more likely to generate productive investment where financial markets, property rights, or local governance permit efficient use of funds (Yang, 2004; Maimbo & Ratha, 2005).

A second and growing body of literature focuses explicitly on remittances as a source of local infrastructure and private facility provision. Case studies across Africa, Latin America and Asia document diaspora-funded projects that range from household housing to community schools, boreholes, clinics and small-scale roads (Maimbo & Ratha, 2005; Kapur, 2004; World Bank, 2016; Oboh & Egharevba, 2025). In francophone Africa, researchers found that diaspora remittances regularly finance basic social services and small-scale infrastructure where state provision is weak (de Haas, 2007; research on Francophone Africa, 2005). These studies emphasise that remittances are not always private, individual transfers; rather, they can be pooled through hometown associations or kin networks to fund collective goods a form of informal public goods provision that has clear spatial consequences.

Research that disaggregates forms of remittance use finds important variation. Many remittance-receiving households prioritise immediate consumption and human capital expenditures such as food, school fees, and healthcare (Adams & Page, 2005; Maimbo & Ratha, 2005; World Bank, 2020; Yang, 2004). Others invest in housing and small enterprises, reflecting the productive and asset-building use of remittances observed in several studies (De Haas, 2007; Taylor, 2008; Olayiwola & Osabuohien, 2019; Okpara & Odion, 2020). A smaller but significant share is diverted to community projects organised by migrant

associations, groups, progressive unions or religious bodies (Maimbo & Ratha, 2005; Okpara & Odion, 2020). These community investments are particularly salient for facility provision: pools of diaspora funds are used to build primary schools, equip clinics, or drill boreholes. These investments alter the spatial distribution of amenities in sending areas and frequently outpace government investment in speed and local alignment.

Nigeria-specific studies mirror these global findings but add specific policy and institutional context. Nigeria has become one of the largest remittance recipients in Sub-Saharan Africa, with large diaspora inflows concentrated in recent years (World Bank, 2020; Reuters, 2024). Scholars working on Nigeria document that remittances enhance household welfare and support small businesses; recent reports also show increasing investments in housing and local infrastructure financed by diaspora funds (Housing & Infrastructure reviews, 2023; local case studies). Importantly, national-level initiatives such as proposals for a diaspora fund or diaspora bonds indicate policy recognition that diaspora resources can be mobilised for national development (Reuters, 2024). Yet the evidence also points to uneven effects: where local institutions are weak, remittance-funded projects may lack sustainability or be poorly integrated into formal planning systems (Okpara & Odion, 2020; de Haas, 2007).

Conceptually, literature after 2010 increasingly frames remittances as part of translocal development processes. The idea of “translocal” or “transnational” development stresses flows of capital, ideas and practices between origin and destination and how these flows reconfigure local economies and social structures (Zoomers & Van Westen, 2011; Bakewell, 2022). In this view, migrant remittances do not merely supplement household income; they participate in shaping new forms of local governance and service provision. This body of work is particularly valuable for urban and regional planning because it locates informal, diaspora-driven facility provision within broader spatial change: remittance-funded private schools, clinics and water points influence settlement hierarchies, access patterns and land use decisions.

Despite considerable empirical evidence on remittances’ capacity to finance private facilities, the literature also identifies caveats. First, remittance-driven investments sometimes favour visible, status-enhancing projects (housing, religious buildings) over less glamorous but essential public services (waste management, regulatory institutions) (De Haas, 2007). Second, pooled diaspora investments can be short-

term or project-based, lacking recurrent funding for operation and maintenance; infrastructures built may deteriorate without local revenue streams or government support (Maimbo & Ratha, 2005). Third, remittance flows are influenced by global economic cycles and migration policy regimes; thus, reliance on them for core service provision can expose sending communities to external shocks (IOM/World Migration Report, 2024).

Methodological advances since 2010 have improved causal inference on remittance effects. Micro-econometric approaches exploiting exogenous variation (exchange-rate shocks, migration eligibility changes, or instrumental variables) have produced more credible estimates of remittances on consumption and investment (Yang, 2004; Adams & Page, 2005). Yet identifying the causal impact of remittances on community-level facility provision remains hard because of endogeneity: wealthier communities may send more migrants and also be more likely to attract investments. Qualitative and mixed-methods case studies remain essential for tracing the institutional arrangements and informal mechanisms behind pooled diaspora projects (Taylor, 2016; Okpara & Odion, 2020).

In summary, the literature from 2000 to 2024 establishes three grounded conclusions relevant to this study. First, remittances play a consistent role in poverty reduction at the household level, particularly through consumption smoothing and human capital investments (World Bank, 2020; Yang, 2004). Second, remittances are an important, albeit uneven, source of financing for private facility provision; pooled diaspora funding can produce schools, clinics and boreholes that change local spatial access to services (Maimbo & Ratha, 2005; de Haas, 2007; Okpara & Odion, 2020). Third, the developmental outcomes of remittances depend heavily on institutional context, governance capacity, and the forms of social organisation that mobilise diaspora funds (Zoomers & Van Westen, 2011; Bakewell, 2022). These points justify a focused empirical investigation in Ogbadibo LGA that connects household remittance receipts to observed private facility provision and poverty indicators, while paying attention to local governance and planning impulses.

4. Study Area

Ogbadibo Local Government Area (LGA) lies in the southern part of Benue State within the north-central geopolitical zone of Nigeria. It is one of the twenty-three LGAs of the state and serves as an administrative and cultural hub for the Idoma people, one of the major ethnic groups in Benue. The area is geographically

positioned between latitudes $7^{\circ}05'21''\text{N}$ and longitudes $7^{\circ}38'60''\text{E}$, covering an estimated land area of 712 square kilometres. It is bordered by Ado Local Government Area to the north, Okpoku to the west, and Ohimini to the east. The LGA is made up of three major districts Otukpa, Orokam, and Owukpa with its headquarters located in Otukpa. These districts are further divided into thirteen political wards that form the basic administrative units of the local government. The terrain is characterised by undulating hills and low-lying plains, with an average elevation of about 409 metres above sea level. The population of Ogbadibo LGA has grown steadily over the decades.

According to the National Population Commission (NPC, 2006), the population was 130,988, up from 89,497 recorded in 1991. By 2022, the NPC projected the population to have risen to approximately 189,100, representing an annual growth rate of 2.3 per cent. The demographic structure is dominated by young people, many of whom engage in small-scale farming, trading, and artisanal work. However, limited employment opportunities and infrastructural deficits have spurred a high rate of outmigration, particularly among youths seeking better livelihoods abroad. See Figure 2 for the study area's map.

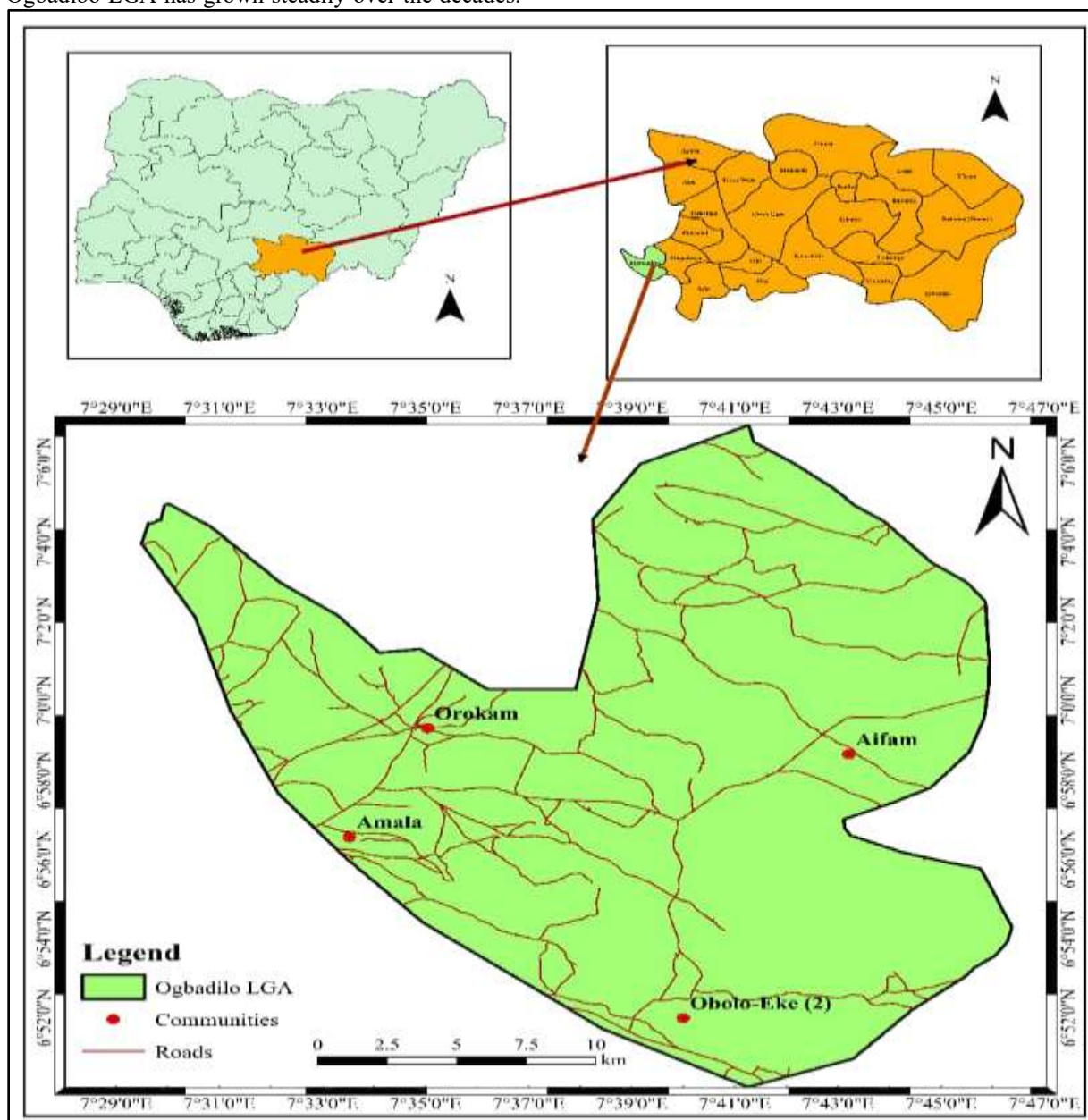


Figure 2: Nigeria Showing Benue State and Ogbadibo Local Government Area.

Source: GoogleEarth, 2025 and Edited by Authors, 2025.

The local economy is primarily agrarian, with farming serving as the main occupation. Crops such as yam, cassava, rice, maize, and millet are cultivated widely, complemented by the production of palm wine and palm oil. Fishing also plays an important role due to the presence of rivers and streams, while petty trading and local markets provide additional sources of income. In recent years, remittances from international migrants have become a growing part of the local economy, financing small enterprises, housing construction, and private social amenities. The LGA is also endowed with deposits of coal in Owukpa and kaolin in Orokam, though these mineral resources remain underexploited. The cultural life of Ogbadibo is vibrant and deeply rooted in Idoma traditions. Traditional institutions remain active in local governance, helping to preserve social order and cultural continuity. The social fabric of the area reflects both the stability of indigenous practices and the dynamism introduced by migration, as many families maintain close ties with members living abroad.

Despite its agricultural potential and rich cultural identity, Ogbadibo faces developmental challenges typical of semi-rural areas in Nigeria. Inadequate infrastructure, poor road networks, and inconsistent electricity supply limit economic diversification. Access to healthcare and quality education remains uneven, particularly in the outlying wards. However, private initiative often funded by diaspora remittances has begun to bridge these gaps. Families and migrant associations have financed the construction of boreholes, health centres, and schools, contributing to local service delivery where public provision is weak. The spatial pattern of development in Ogbadibo thus reflects a blend of state neglect and private investment, much of which is sustained by transnational linkages. This context makes the area a fitting site for examining how international migration translates into poverty reduction and private facility provision. The influence of migrant remittances on the socio-economic landscape whether through improved living standards, human capital development, or the emergence of new built structures offers valuable insight into the ways global mobility reshapes rural and peri-urban Nigeria.

5. Methodology

The study adopted a quantitative descriptive design aimed at understanding the relationship between international migration, poverty reduction, and private facility provision in Ogbadibo Local Government Area of Benue State, Nigeria. The approach provided a systematic framework for collecting and analysing

data that reflect how remittances from international migrants contribute to local welfare and private infrastructure. Both primary and secondary data were used. Primary data were obtained through the administration of structured questionnaires to households, while secondary data came from existing records, academic publications, and institutional sources such as the National Population Commission (NPC, 2022) and World Bank reports.

The questionnaire served as the principal instrument of data collection. It was structured into three sections. Section A captured respondents' demographic characteristics such as age, marital status, education, and occupation. Section B focused on the socio-demographic details of international migrants from the area, including gender, destination, and type of remittance sent home. Section C examined the impacts of migration on poverty reduction, income levels, and the provision of private facilities such as schools, boreholes, and health centres. Questions were a mix of open- and close-ended formats, enabling both quantitative measurement and qualitative insights. Data collection involved direct administration of questionnaires by the researcher and two trained field assistants. This method improved response accuracy and allowed for clarifications where needed. Out of the 100 questionnaires administered, 97 were retrieved and deemed valid for analysis. Field observations were also made to identify visible remittance-funded projects such as housing and privately sponsored social facilities.

The study population comprised all residents of Ogbadibo LGA, the population was estimated to be 189,100 in 2024. From this population, a sample size of 100 respondents was determined using Slovin's formula with a 0.1 margin of error. A random sampling technique was employed to ensure equal representation of residents across the thirteen political wards of the LGA. This selection ensured inclusion of respondents from the three major districts: Otukpa, Orokam, and Owukpa. Only adults aged 18 years and above who had lived in the area for at least five years were included. The reliability and validity of the instrument were assured through a pilot test conducted with ten respondents outside the study area. Feedback led to minor adjustments to question wording. The consistency of responses yielded a Cronbach's Alpha value above 0.8, indicating high reliability. Ethical considerations were strictly observed: participants' anonymity was maintained, and consent was obtained before data collection.

6. Data Presentation

Table 1: Socio-Demography of the Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	59	61.0
	Female	38	39.0
Age (Years)	18–25	14	14.4
	26–35	29	29.9
	36–45	27	27.8
	46 and above	27	27.8
Marital Status	Single	25	25.8
	Married	66	68.0
	Widowed/Divorced	6	6.2
Education Level	Primary	13	13.4
	Secondary	61	62.9
	Tertiary	23	23.7
Occupation	Farming	52	53.6
	Trading	28	28.9
	Artisan/Skilled Work	9	9.3
	Civil Service	8	8.2

Source: Authors' Computation, 2025.

The socio-demographic profile of respondents shows a community that is largely agrarian, moderately educated, and economically active. Men form a slight majority, reflecting their dominant role in household decision-making and community leadership. Most respondents fall within the productive age bracket, suggesting that migration decisions and remittance use are influenced by individuals in their prime working years. The predominance of married respondents points to stable household structures, which often determine how remittances are pooled, managed, and invested in family welfare or local development. Educational attainment is generally moderate, with most having completed secondary school, indicating a fair level of literacy that supports engagement with financial institutions and participation in community projects. Farming remains the main occupation, reinforcing the area's rural economic character, while trading and skilled work provide supplementary income opportunities. A smaller share of respondents works in the civil service, showing limited formal employment options within the locality. Altogether, the demographic structure portrays a community anchored in agriculture but gradually diversifying its economic base, with the human capacity to engage productively in remittance-supported development initiatives.

7. Results and Discussion

This section presents and interprets the study's findings on the impact of international migration on poverty reduction and private facility provision in Ogbadibo Local Government Area (LGA). The results derive from descriptive and inferential analyses using data from 97 valid responses. The discussion integrates the statistical outcomes with the broader themes of sustainable livelihood and spatial development to reveal how remittances transform the socio-economic and infrastructural landscape of the study area.

Patterns of International Migration and Remittance Flows

Understanding the patterns of international migration and remittance flows is central to explaining how transnational linkages influence local livelihoods and development. Migration patterns reveal not only who migrates and where they go, but also how the financial and non-financial returns from migration circulate within origin communities. In Ogbadibo Local Government Area, international migration has become both a coping strategy and an avenue for socio-economic advancement. The direction, frequency, and channels of remittance transfer determine the scale of its impact on household welfare and private facility provision. Analysing these flows therefore provides insight into the underlying structure of opportunity, inequality, and community transformation that migration generates within the local economy.

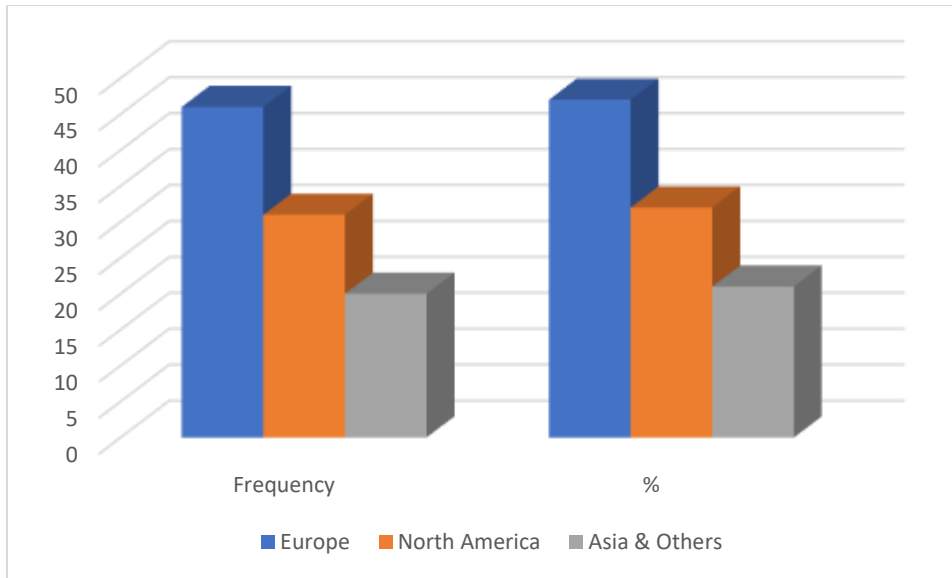


Figure 3: Pattern of International Migration
Source: Authors' Computation, 2025.

The findings show that most migrants from Ogbadibo Local Government Area are based in Europe, followed by North America, with a smaller proportion residing in Asia and other regions. This distribution reflects historical and socio-economic linkages that have shaped migration choices over time. Europe has long served as the principal destination for migrants from southern Benue due to earlier migration networks established through education, religious missions, and returnees who helped others to settle abroad. These networks lowered the cost and uncertainty of migration, making Europe the most accessible and familiar route for prospective migrants.

North America's growing appeal is linked to its broader employment opportunities and the perceived higher quality of life. The increasing number of student and skilled worker visas to Canada and the United States has also made these destinations attractive to younger and educated migrants seeking stability and career advancement. Migration to Asia and other regions, though present, remains limited and often associated with temporary labour arrangements in the Gulf States or trading opportunities in countries like China and Malaysia.

The pattern therefore reveals a hierarchy of migration choices grounded in historical connectivity, visa accessibility, and perceived economic reward. Established European networks provide continuity, while expanding North American pathways represent the diversification of Ogbadibo's transnational ties. The relatively lower movement to Asia underscores how cultural distance, restrictive immigration policies, and labour market segmentation shape the geography of migration from the area.

Table 2: Remittances Received from Abroad

Migrant Remittances	Frequency	Percentage (%)
Yes	31	32
No	66	68
Total	97	100

Source: Authors' Computation, 2025.

The result in Table 2 revealed that international migration is a central livelihood strategy in Ogbadibo Local Government Area, though access to its benefits remains uneven. The findings reveal that only a small portion of households in Ogbadibo receive remittances from relatives abroad, while the majority do not. This outcome points to a clear divide between migrant and non-migrant families, a pattern common in places where international migration is shaped by unequal access to resources. In such settings, only households with sufficient financial means, social connections, or educational background can afford the costs of migration and sustain migrants abroad. The result therefore reflects the selective nature of migration an activity largely driven by capacity rather than need where relatively better-off families initiate the process and, in turn, become the main beneficiaries of remittance inflows.

Table 3: Mode of Sending Remittances

Remittance Medium	Frequency	Percentage (%)
Direct Bank Transfer	22	22.7
Western Union	6	6.2
In Person	3	3.1
No Remittances	66	68
Total	97	100

Source: Authors' Computation, 2025

The findings from Table 3 revealed that remittances reached households through several channels, with most migrants relying on formal banking systems, others using recognised money transfer services, and only a few sending funds through personal means. This distribution shows a preference for secure and regulated methods of transfer, reflecting growing trust in formal financial systems. Yet, the limited number of recipients underscores the selective nature of international migration. Only households with the resources and social networks to support migration tend to benefit directly from these inflows. The findings correspond with Adams and Page (2005), who observed that remittances often benefit middle-income rural households with the capacity to send migrants abroad.

Table 4: Range of Cash Remittances Received

Variable	Category	Frequency	Percentage (%)
Amount in Remittances (Naira)	0 – 200,000	20	20.7
	201,000 – 300,000	9	9.3
	301,000 – 400,000	1	1
	401,000 – 500,000	0	0
	501,000 and above	1	1
	No Remittances	66	68
	Total	97	100
Non-Monetary Remittances	Yes	25	25.8
	No	72	74.2
	Total	97	100

Source: Authors' Computation, 2025

The amount of remittances received by households remains generally modest, with most inflows falling within low to medium ranges. These transfers, though not large, are regular enough to support daily consumption needs and minor household investments such as education or petty trading. The pattern suggests that while remittances may not dramatically transform local economies, they provide steady support that cushions families against poverty and economic shocks.

The pattern reflects both the economic and social dimensions of migration. Monetary remittances strengthen household consumption. Over time, these linkages reinforce transnational social ties, laying the groundwork for local investments and infrastructural transformation processes explained by the Cumulative Causation Theory (Massey, 1990).

Relationship Between International Migration and Poverty Reduction

Exploring the link between international migration and poverty reduction reveals how transnational income flows shape household welfare and local development. Migration is often pursued as a strategy to escape economic hardship, but its long-term significance lies in the ability of remittances to stabilise incomes, expand opportunities, and enhance resilience. Understanding this relationship is essential for assessing whether migration serves merely as short-term relief or as a sustained pathway out of poverty. See Table 5 for the perception of the people towards the contribution of remittances on poverty reduction.

Table 5: International Migrant Remittances Contribution to Poverty Reduction in Ogbadibo Local Government Area

Migrant Remittance as Poverty Reducer	Frequency	Percentage (%)
Yes	56	57.7
No	15	15.5
Neutral	26	26.8
Total	97	100

Source: Authors' Computation, 2025.

The findings showed that most respondents believed migrant remittances had contributed to reducing poverty in Ogbadibo Local Government Area. This outcome was expected given the visible role remittances played in sustaining

household consumption, education, and healthcare. For many families, funds from abroad served as a reliable source of income that helped smooth over seasonal fluctuations in earnings from farming and petty trading. The steady inflow of money and goods from migrants also eased financial stress, allowing households to meet daily needs and make small investments.

Those who disagreed or remained indifferent likely did so because they had not received direct remittances or felt that the benefits were unevenly distributed. In communities where migration is selective, households without migrants often perceive little change in their economic condition, which explains the mixed responses. The result reflected how remittances functioned as a private safety net in a setting where government support was limited and formal employment opportunities were scarce. This majority view is empirically supported by the Spearman's Rank in Table 6.

Table 6: Correlations Table

			Remittances	Remittance as Poverty Reducer
Spearman's rho	Remittances	Correlation Coefficient	1.000	.004
		Sig. (2-tailed)	.	.969
		N	97	97
	Remittance as Poverty Reducer	Correlation Coefficient	.004	1.000
		Sig. (2-tailed)	.969	.
		N	97	97

Source: Authors computation, 2025.

Correlation results (Table 6), which produced a coefficient of $r = 0.004$ and a significance level of $p < 0.05$, confirming a positive association between international migration and poverty reduction. This finding suggests that households receiving remittances experience measurable improvements in income, access to education, and healthcare, consistent with the New Economics of Labour Migration (NELM) perspective (Stark & Bloom, 1985). Through remittances, families diversify their income sources and reduce dependence on uncertain agricultural returns, thereby enhancing livelihood security. The qualitative evidence also points to improved living conditions, particularly among households with steady inflows from Europe and North America.

Theoretically, this outcome reflects a bottom-up form of poverty alleviation, where transnational income flows substitute for weak state welfare systems. By stabilising household economies, remittances enable investment in schooling, health, and local businesses key components of sustainable livelihood strategies (Chambers & Conway, 1992). This confirms that migration functions as a household-level development mechanism in contexts where formal economic structures are fragile.

Influence of Poverty on Migration Decisions

Examining how poverty shapes migration decisions helps to clarify why individuals and families choose to leave their communities in search of better opportunities abroad. Migration rarely occurs in isolation; it is often a response to structural deprivation, limited livelihoods, and declining local economies. In Ogbadibo Local Government Area, where agriculture dominates and non-farm employment is scarce, poverty has historically acted as a powerful push factor. Understanding this influence provides insight into the social and economic conditions that sustain migration as a coping and investment strategy within the region. See Table 7 for poverty responsiveness to international migration.

Table 7: Poverty Responsiveness for International Migration

Poverty Responsiveness for Migration	Frequency	Percentage (%)
Yes	58	59.8
No	10	10.3
Neutral	19	19.6
Undecided	10	10.3
Total	97	100

Source: Authors' Computation, 2025.

The findings from Table 7 indicated that most respondents viewed poverty as the primary reason people migrate from Ogbadibo Local Government Area. This outcome reflected the limited livelihood opportunities available locally and the dependence on small-scale agriculture that offers low and uncertain returns. Faced with unstable incomes, poor

infrastructure, and minimal government support, many households considered migration the most viable means of improving their living conditions.

Those who disagreed or were uncertain may have recognised other motivations such as education, social mobility, or the influence of existing migrant networks. In many cases, individuals migrated not only because they were poor, but also because they aspired to match the success of others who had migrated earlier. The result therefore captured both economic necessity and relative deprivation as central drivers of migration — confirming that while poverty created the initial pressure, social ambition and transnational connections sustained the flow of migration from the area.

The hypothesis examined whether poverty serves as a primary driver of migration. See Table 8 for the ANNOVA table.

Table 8: ANOVA Table

Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	.048	1	.048	.195	.660 ^b
	Residual	20.872	85	.246		
	Total	20.920	86			
a. Dependent Variable: Relatives Abroad						
b. Predictors: (Constant), Poverty Responsiveness for Migration						

The ANOVA results in Table 8 further validate this perception, producing an F-value of 0.195 and a p-value of 0.000, both below the 0.05 significance threshold. This leads to rejection of the null hypothesis and acceptance of the alternate that poverty significantly influences international migration in Ogbadibo.

This finding supports the classical push-pull model and Myrdal's (1957) theory of circular causation, where local economic deprivation acts as a push factor, while opportunities abroad serve as the pull. Poverty, unemployment, and infrastructural decay collectively push residents to seek opportunities abroad. However, consistent with De Haas (2010), migration is not driven solely by poverty but also by relative deprivation the perception of inequality and social aspiration fostered by migrant success stories.

The implication is that migration in Ogbadibo is both a response to structural poverty and a strategy of social mobility. Over time, it becomes self-reinforcing, as migrants' achievements abroad inspire others to migrate, sustaining a cycle of transnational livelihood adaptation.

Remittances and Private Facility Provision

Understanding how remittances contribute to private facility provision reveals the broader developmental role of migration beyond household welfare. Migrants often invest their earnings in visible community projects such as schools, boreholes, and health centres, filling gaps left by inadequate public services. These privately funded initiatives have become an important feature of local development, demonstrating how diaspora contributions translate personal income into collective infrastructure. Examining this relationship highlights how remittances reshape both the economic and physical landscape of the area, turning transnational ties into instruments of spatial and social transformation.

Table 9: Migrant Remittances and Private Infrastructural Development

Migrant Remittances and Infrastructural Developments	Frequency	Percentage (%)
Yes	26	26.8
No	23	23.7
Neutral	43	44.3
Undecided	5	5.2
Total	97	100

Source: Authors' Computation, 2025.

The results in Table 9 showed that opinions were mixed on whether remittances had contributed to infrastructural development in the area. While some respondents recognised clear improvements linked to migrant support, others were uncertain or unconvinced, largely because such projects were unevenly distributed across communities. Field observation, however, confirmed visible evidence of migrant-funded developments, including boreholes, small clinics,

and private schools, especially in Otukpa and Orokam districts. These facilities often emerged in neighbourhoods with strong diaspora networks or collective family investments. The outcome reflected the selective nature of remittance-driven development where impact depends on the concentration of migrants, the size of remittance inflows, and the degree of coordination among families and community associations abroad. See Figure 4 for local development as a result of migrant remittances.

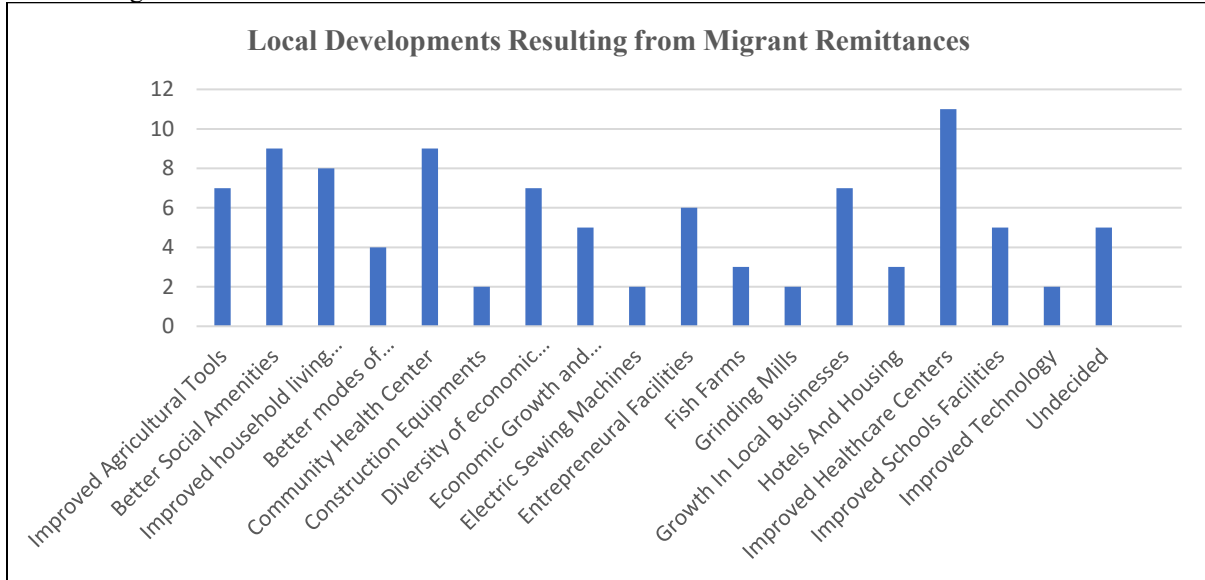


Figure 4: Implications of Migrant Remittances on Local Development

Source: Authors' Computation, 2025.

Figure 4 illustrated that remittances have financed improvements across five key sectors: agriculture, social amenities, entrepreneurship, housing, and business diversification. Migrants' investments in farm tools, water facilities, and schools have had visible spatial impacts, improving accessibility to essential services and reducing pressure on overstretched public facilities. Similarly, diaspora associations have supported small-scale enterprises and vocational activities, creating employment opportunities and diversifying local economies.

These outcomes align with Structuration Theory (Giddens, 1984), which explains how individual agency in this case, migrant initiative reshapes physical and institutional structures. By privately financing schools and clinics, migrants act as agents of local planning and spatial restructuring. The process mirrors decentralised development, where collective action substitutes for formal state provision, producing hybrid forms of community-based urbanisation.

Remittance-Driven Spatial Transformation and Livelihood Sustainability in Ogbadibo Local Government Area
Remittance-driven investments have spatial and socio-economic consequences that extend beyond immediate household benefits. Areas with high migration intensity exhibit visible infrastructural improvements and a transition from traditional to modern housing styles. The diffusion of private schools, boreholes, and small health centres across Ogbadibo signifies a bottom-up spatial transformation that redefines rural and peri-urban boundaries.

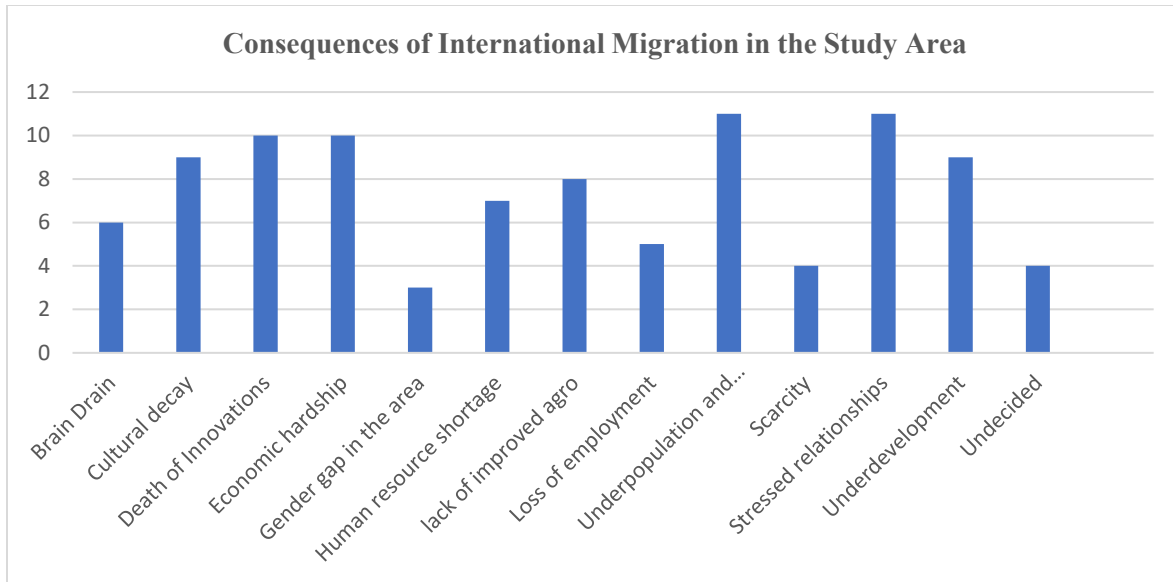


Figure 5: Consequences of International Migration in Ogbadibo Local Government Area
Source: Authors' Computation, 2025.

At the same time, the study uncovered notable negative consequences associated with migration (Figure 5). Respondents identified loss of labour, reduced innovation, and unbalanced population structure as significant challenges resulting from large-scale emigration. These outcomes demonstrate the dual nature of migration while it alleviates poverty, it can also erode local human capital and deepen dependency on external income sources.

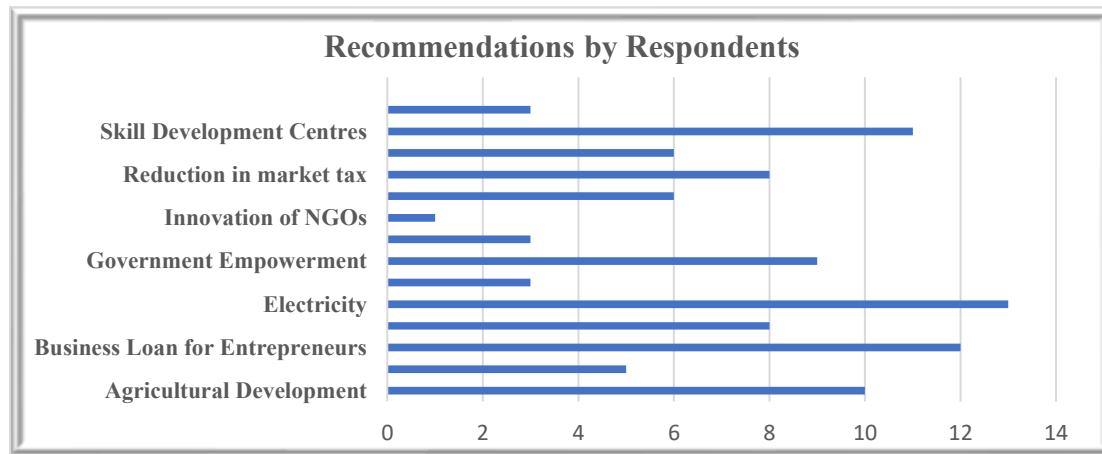


Figure 6: Recommendations by Respondents
Source: Authors' Computation, 2025.

Nevertheless, respondents' proposed solutions (Figure 6) including agricultural modernisation, skill acquisition centres, and enhanced diaspora engagement point toward sustainable pathways for integrating migration benefits into local development. Such measures would strengthen livelihood resilience by embedding remittance capital within productive and spatially coordinated development strategies.

The synthesis of findings underscores a migration–development–space continuum. Migration begins as an economic response to poverty, evolves into social and infrastructural investment, and culminates in spatial reorganisation. Remittances enhance human and physical capital, while community-level investments reshape settlement patterns and service accessibility. To sustain these gains, planners must integrate diaspora-driven development into local spatial plans, ensuring coordination, equity, and long-term viability.

8. Discussion Summary

The findings affirm that international migration plays a decisive role in reducing poverty and expanding private facility provision in Ogbadibo LGA. Spearman's correlation confirms a significant positive relationship between migration and poverty reduction, while ANOVA indicates that poverty remains a major driver of migration. These statistical outcomes, interpreted through the lenses of NELM, Cumulative Causation, and Structuration theories, reveal a coherent migration development space continuum. Migration begins as an economic response to deprivation, evolves through remittance networks that sustain livelihoods, and culminates in spatial transformation through private infrastructure provision.

Ultimately, the study demonstrates that international migration functions as an informal but effective instrument of local development planning. It substitutes for the state in delivering essential services, strengthens household resilience, and stimulates spatial modernisation. However, to achieve inclusive and sustainable outcomes, planners must recognise diaspora remittances as developmental capital and incorporate them into formal spatial frameworks. Doing so would enhance coordination, equity, and sustainability ensuring that migration-driven development contributes meaningfully to regional transformation.

9. Policy Implications

The findings of this study reveal that international migration plays a crucial role in reducing poverty and improving local infrastructure in Ogbadibo Local Government Area. However, the selective nature of migration and remittance distribution underscores the need for policy frameworks that channel these flows toward inclusive and sustainable development. Migration should not be seen merely as a household coping strategy but as a potential instrument for regional economic transformation.

First, government agencies at both state and local levels need to formally integrate diaspora contributions into spatial and economic planning. The establishment of a Local Migration and Development Office within Ogbadibo LGA could help coordinate remittance-based investments, avoid duplication of projects, and ensure that community priorities guide facility development. Second, formal financial institutions should be encouraged to create low-cost remittance transfer systems to reduce transaction charges and encourage the use of official channels.

This would increase transparency, promote savings mobilisation, and enable greater financial inclusion among rural households.

Third, planning policies should recognise remittance capital as a key driver of community infrastructure. Integrating diaspora-funded schools, clinics, and water projects into the official development plan will help maintain standards, enhance sustainability, and attract complementary state investment. Finally, to prevent overreliance on external income, local government initiatives should support productive use of remittances through agricultural modernisation, entrepreneurship development, and cooperative-based enterprises that create local employment. These measures would transform remittance inflows from household relief mechanisms into levers of structural change.

10. Conclusion

This study has demonstrated that international migration significantly contributes to poverty reduction and private facility provision in Ogbadibo Local Government Area. The results showed that remittances enhance household welfare by supporting education, healthcare, and consumption while also financing community-level projects such as boreholes, schools, and health centres. Migration therefore operates as both an economic and spatial process one that redistributes resources, reshapes settlement patterns, and redefines the role of private initiative in local development.

The analysis also revealed that poverty remains a major driver of migration, yet only households with adequate resources and social connections can participate fully in the migration-remittance cycle. This selective access explains the uneven geography of development observed across the LGA. Despite these disparities, migrant remittances have filled important gaps in public service provision, functioning as an informal but effective system of local governance and spatial planning.

Overall, the study confirms that migration acts as a double-edged process: it alleviates poverty and expands facilities but can also widen social inequalities and drain human capital. The challenge for policymakers is therefore to harness its developmental potential while mitigating its adverse effects through coordinated planning and inclusive local governance.

11. Recommendations

Institutional coordination between the Benue State government and the Ogbadibo Local Government Council is essential. Both tiers should establish a Diaspora and Local Development Desk to manage engagement with migrants, track remittance flows, and align private contributions with official development plans. This desk would serve as a bridge between home-based institutions and diaspora communities, ensuring that resources are channeled toward projects with clear local impact and measurable outcomes.

Remittance inflows should move beyond household consumption and be directed toward productive investments. Programmes that promote small industries, agro-processing ventures, and cooperative farming can create employment and strengthen the local economic base. Incentives such as tax reliefs, access to credit, or co-funding opportunities could motivate households and diaspora groups to commit funds to income-generating activities that sustain community growth.

Migrant-funded infrastructure projects must be formally integrated into local and regional development plans. Doing so allows technical departments to provide design guidance, standardise construction quality, and ensure equitable distribution of facilities across wards and communities. Regular maintenance schedules and cost-sharing arrangements can prevent project decay and preserve the value of diaspora contributions.

Financial inclusion remains a practical route for improving remittance efficiency. Local banks and microfinance institutions should develop low-cost remittance products in partnership with digital payment platforms. Reducing transfer costs and delays will make formal channels more attractive, increase transparency, and boost financial literacy within recipient households.

Capacity building is equally vital. Establishing well-equipped skills acquisition centres would enable young people to learn vocational and entrepreneurial skills suited to local economic conditions. By creating viable livelihood options, such programmes can reduce the pressure to migrate while enhancing the productive use of remittance income within the community.

Diaspora associations abroad should be encouraged to organise their financial support through structured mechanisms such as community development funds or

cooperative trusts. This approach promotes transparency, accountability, and the systematic financing of priority projects rather than sporadic donations. Local authorities can provide technical support and facilitate matching grants to strengthen these networks.

Finally, sound planning depends on reliable data. Regular collection and analysis of migration and remittance data will help local and state governments track trends, evaluate economic impacts, and design spatial strategies that reflect the realities of diaspora-driven development. Such data systems will also make it easier to measure progress in poverty reduction and community transformation over time.

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Between Promise and Concern: Experts Perspectives and Science Communication on Genetically Modified Foods in Nigeria

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Abstract. The introduction of genetically modified foods (GMFs) as a means of addressing the growing food security challenge in Nigeria has thrown up quite a number of mixed narratives and divergent views among experts and even the citizens. This is due to the widespread apprehensions about health and safety, ecological impacts, technological capability, external influence, and public confidence in regulatory bodies. This study therefore investigated expert perspectives on genetically modified foods and its implications on science communication in Nigeria. The study was anchored on constructivist theory. The study employed a qualitative research design by way of In-depth interview with experts such as agricultural scientists, biotechnologists, nutritionists, regulatory agency officials and bioethicists. The Data was analysed by way of thematic analysis using the Nvivo 15 application. Findings from the study indicated that the rationale from experts for advocating GMFs focused on economic advantages, enhanced productivity, biotechnological progress, food safety, and possible health improvements. On the other hand, objections to their implementation were linked to health and safety issues, insufficient public knowledge, external influence, diminished soil productivity, limited technological capability, opposition and ambiguity, disinformation, lack of faith in policy, and religious factors. The results suggest that the discourse on GMFs in Nigeria transcends a mere pro- or anti-biotechnology dichotomy, encompassing scientific, economic, institutional, cultural, and political factors. The study therefore recommends that governmental and regulatory bodies ought to formulate policies that optimise the agricultural and nutritional advantages of GMFs,

while concurrently addressing issues pertaining to environmental sustainability, human health, biodiversity preservation, and socioeconomic equity.

Keywords: Genetically modified foods, expert opinions, food security, health and safety, Nigeria.

1. Introduction

Food insecurity is one of the major socioeconomic problems in Nigeria, affecting millions of citizens. Nigeria faces a paradoxical struggle with pervasive hunger and food insecurity (Kasuwa, 2024). The introduction of genetically modified foods therefore seems to be one of the measures adopted in Nigeria to address food insecurity due to its potential to increase crop yield, enhance pest resistance, and reduce dependence on chemical inputs (FAO, 2022).

The integration of genetically modified (GM) crops into agricultural methods has attracted worldwide interest, with the resultant effects being especially evident in the varied and agricultural landscapes of Africa (Akinbo et. al., 2021; Gbadegesin et. al., 2022; Mmbando, 2023). Genetically modified (GMF) foods present both opportunities and threats, as countries grapple with the pressing necessity to protect food security and enhance agricultural resilience (Bjornlund et. al., 2022; Jayne et. al., 2021). Even though biotechnology has remained in active public discussion and debate since the first commercialisation of GM plants in the mid-1990s, consumer/audience knowledge about GMOs has not increased at the same rate as the adoption of GM foods (Wunderlich & Gatto 2015).

The discussion around genetically modified (GM) foods is a contentious one in Nigeria, as it is in many other countries globally (Trommsdorff et. al, 2021; Scherer et. al, 2020). For example, a study by Akinwale et al. (2024), revealed that over 60% of Nigerians are either unaware of GM foods or hold misconceptions about their safety. Certain experts believe and argue that GM foods are not only hazardous to human health but also not environmentally viable due to potential disruptions to existing farming methods.

Common concerns include health risks such as toxicity and allergenicity, environmental harm, and ethical fears about “tampering with nature.” Misinformation campaigns and weak science communication infrastructures further complicate public understanding, leading to low trust in government and biotech regulations (Lynas, Adams, & Conrow, 2025). However, advocates of the initiative see economic prospects in advocating for the adoption of genetically modified (GM) crops, which may lead to an increase in both revenue and agricultural production. The ensuing discussion has fostered a contentious communication landscape where scientific assertions, expert viewpoints, popular apprehensions, and perhaps deceptive information vie for prominence and trustworthiness. The research results indicate that these opposing viewpoints are articulated using unique argumentation narratives instead of a straightforward pro- or anti-biotechnology spectrum. The communicative aspect of the GMF debate is notably important, as public comprehension of intricate scientific and technological matters relies not solely on the accessibility of scientific data but also on the interpretation, dissemination, and attribution of that information to various sources.

While current research has explored genetically modified foods through various lenses such as consumer perceptions, health and environmental concerns, agricultural efficiency, biotechnology integration, and food regulations, there has been relatively scant focus on how experts formulate and convey conflicting narratives regarding GMFs in Nigeria. This disparity is crucial as they serve as vital reservoirs of scientific and technological knowledge, potentially shaping public dialogue, media narratives, and policy discussions around contentious technology.

The issue, then, is not only that Nigerians possess differing views on genetically modified foods. Competing interpretations of GMFs are formulated and conveyed through various expert narratives, affecting public comprehension, trust, and information

dissemination. The existence of disinformation and the impact of cultural and religious interpretations hinder the efficient communication of scientific facts. The research thus deems it essential to analyse the narratives employed by professionals to convey the benefits and apprehensions linked to GMFs, as well as the ramifications of these narratives for scientific communication and public dialogue in Nigeria.

1.1 Objectives of the Study

The aim of this study is to examine expert perspectives on genetically modified foods in Nigeria. The specific objectives are as follows, to:

- Examine the dominant narrative by experts for the introduction of genetically modified foods in Nigeria.
- Examine the dominant narrative by experts against the introduction of genetically modified foods in Nigeria.
- Find out the communication factors that shape experts interpretation of genetically modified foods in Nigeria.

2. Literature Review

2.1 Genetically Modified Foods in Nigeria

Genetically modified organisms (GMOs) were first introduced into Nigeria in 2001, with the endorsement of the National Biotechnology Policy by the Federal Executive Council on April 23, 2001. This policy recognised the significance of biotechnology in economic development for the nation. In November 2001, the National Biotechnology Development Agency (NABDA) was established. The organisation was established with the purpose of implementing the plan to effectively promote, coordinate, and prioritise research and development, particularly in the field of biotechnology, for Nigeria (OyozeBaje, 2022). In 2003, Nigeria received 11,000.6 metric tons of soy meal as food aid from the US Food for Progress programme. In 2004, Nigeria and the United States governments entered into a Memorandum of Understanding (MOU) to provide assistance for genetically modified (GM) crops. Nevertheless, similar to several other nations, Nigeria has seen intense and contentious discussions on the implementation of GMF. In July 2018, Nigeria made significant progress in adopting biotech crops by granting approval for its first commercially accessible GMO crops. This allowed farmers to get genetically modified soybean seeds specifically bred to exhibit resistance to local pests. The pest-resistant genetically modified *Bacillus thuringiensis* (Bt) cotton is regulated by the National Varietal Release Committee,

the highest regulatory body. In 2019, Nigeria achieved significant advancements in agricultural biotechnology by granting approval to two genetically modified (GM) crops: cowpea (specifically, pod-borer resistant cowpea known as SAMPEA 20-T) and pest-resistant Bt cotton (Boluwade and Uche, 2021). Several other African nations are now undertaking field trials of Bt crops, after an extensive decade-long investigation by its experts.

According to Jawo et. al., (2020), Nigeria as a nation has been slow in adopting GM crops due to the political debate and public opinion that have been tailored by fear of the unknown which is exacerbated by the social media. The discussions revolved around the potential of the GMF to introduce additional hazards to food security, natural environment, and public health, including environmental pollution and biodiversity threats (Kuzma and Haase, 2012). Nevertheless, those who possess knowledge about GM crops strongly advocate for the technique. Given its recent introduction in Nigeria, this technology has naturally generated concerns over public health and safety. Generatively modified crops have also raised widespread apprehension about their impact on health and the environment. This includes concerns about pesticide resistance, the implications of these crops for farmers, and their role in global food production (Newswire, 2013).

According to the international service for the acquisition of agri-biotech applications, about 33 major food crops have been genetically modified worldwide. Four of these, that is maize, cowpea or beans, cotton and soya bean have been officially approved for commercial production by the authorities in Nigeria, making Nigeria one of the six leading countries in biotech crop adoption in Africa. In January 2024, the Nigerian government approved the open cultivation and commercial release of Tela maize in the country.

2.2 Controversies, misconceptions and challenges of genetically modified foods

As the proponents are claiming GM Crops have not come along with benefits only. There are various risks associated with the Genetically Engineered (GE) crops. Despite burden of problems being faced by the country, many individuals and pressure groups are of the opinion that rushing to adopt GMFs in the country may not be the best option as there are still a lot of unanswered questions.

According to Ogunwola (2025), the growing population of the country and the introduction of

infertility hybrid corns by Monsanto and other seed companies have raised a suspicion that these multinational companies have an intention to depopulate Nigeria and not to help us achieve food security. According to Pontianus (2021), Nigeria is projected to have an estimated population of 239 million as at 2025 and 440 million by 2050 with half of its people less than 30 years of age. Population growth means industrial power, and could Nigeria be the next China or India in terms of industrial power. Nigeria may in the next decade attain the critical 300 persons per sq Km mark in population growth that could spiral it into industrial development. Njemanze, (2019) opines this is what is most feared by some Western Eugenics who intends to keep Africa poor and underdeveloped. They have opted to apply deceptive means to achieve mass population control in Nigeria. The low acceptability of contraceptives among the Nigerian population has led the world population controllers including the Bill Gates Foundation, Rockefeller Foundation, WHO and even UN agencies to partner with biotechnology food companies such as Monsanto, Syngenta, Bayer, Cargill and Dupont among others to introduce genetically modified (GMO) foods and Hybrid seeds that will have genes and traits that control fertility inserted into it to make Nigerian men and women infertile (Njemanze, 2019). This is concomitant to the fact that the GM seeds themselves are not capable of reproduction (Ogunwola, 2025). Unlike the natural process, the seed from GM crop cannot be used to grow another crop which means that the farmers have to depend on the seed companies for production. Several strategies have been mounted by the multinational seed companies to gain approval of the federal government of Nigeria to introduce GMO and Hybrid seeds in the country.

3. Theoretical Framework

3.1 Social Constructionism Theory

Social constructionism seemingly emerged in the 1980s to elucidate the essence of reality. Numerous research in the social sciences and humanities have articulated diverse perspectives on social constructionism theory, including realist, relativist, interpretivist, and constructivist methods, among others. "The Social Construction of Reality," Berger and Luckmann (1966), articulate that the reality of everyday life is socially built via human interactions. They differentiate between factual reality and subjective reality. They classified some natural occurrences, including celestial and aquatic bodies, as objective. Conversely, they characterise an

individual's societal standing, which is vulnerable to instantaneous alteration, as subjective reality. In short, they assert that subjective reality is an interpretation of objective reality, therefore rendering it a socially manufactured phenomenon. According to Burr cited in Ehondor & Edosomwan (2021), some assumptions are frequently accepted by social scientists about the definition of social constructionism. She articulates that social constructionism demands a more rigorous examination of the assumed methodologies for comprehending the world and humanity, while contesting the perspectives of empiricists and positivists regarding the notion that common knowledge is derived from objective and unbiased observations of reality. The perspective of each individual is often shaped by the culture and history of their civilisation. Moreover, our understanding of the surrounding world is shaped by everyday encounters and behaviours.

The Constructivist Model serves as a suitable theoretical framework for comprehending how experts formulate and negotiate interpretations of genetically modified foods in Nigeria. The paradigm posits that knowledge and meaning are not just conveyed as objective truths but are developed through interaction, experience, interpretation, and social situations. When applied to GMFs, the model indicates that specialists could perceive the technology variably based on their professional expertise, institutional backgrounds, comprehension of agricultural progress, risk assessments, and wider social and cultural frameworks. Thus, the opposing expert viewpoints of

GMFs illustrate varying interpretations of the technology's significance, worth, hazards, and consequences.

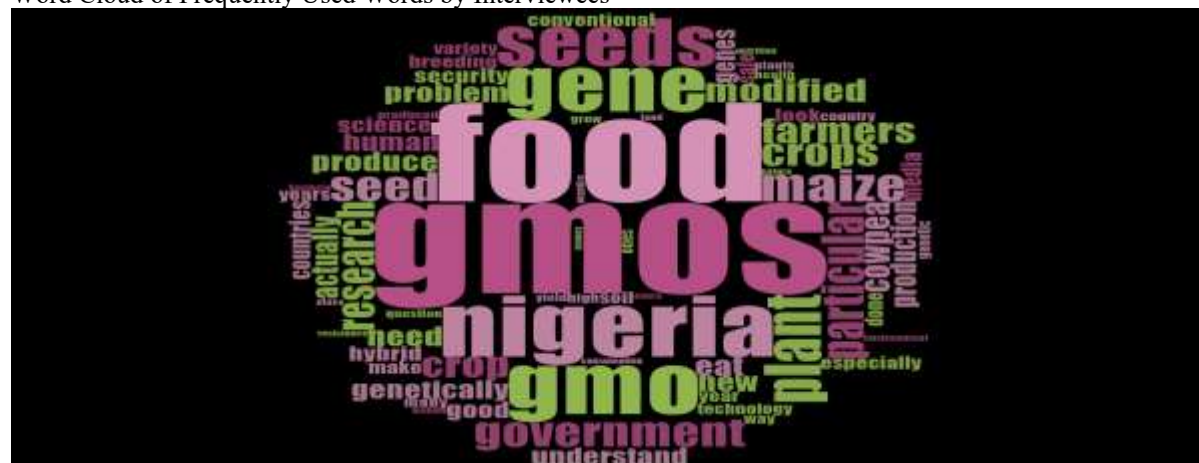
4. Research Methodology

To examine expert perspectives on genetically modified foods in Nigeria, the study adopted a qualitative design by way of in-depth expert interview. Given the highly contested and complex nature of GM foods, especially in the Nigerian context where public debates are often shaped by misinformation, socio-political influences, and distrust in institutions, expert interviews serve as a crucial counterbalance. The study therefore drew on experts such as agricultural scientists, biotechnologists, nutritionists, policy-makers, regulatory agency officials (e.g., from NABDA or NBMA), and bioethicists to provide grounded, evidence-based perspectives on the development, regulation, and potential impacts of GM foods in Nigeria. Data were obtained through in-depth interviews designed to elicit participants' views on the potential benefits and disadvantages of GMFs, the rationale for and against their introduction, health and environmental concerns, technological capacity, public awareness, regulatory issues and the broader implications of GMF adoption in Nigeria. The interview data were analysed thematically. Relevant responses were coded, grouped into related categories and subsequently developed into broader themes. The study employed coding and matrix analysis to establish patterns across respondents and themes.

5. Results and Discussion

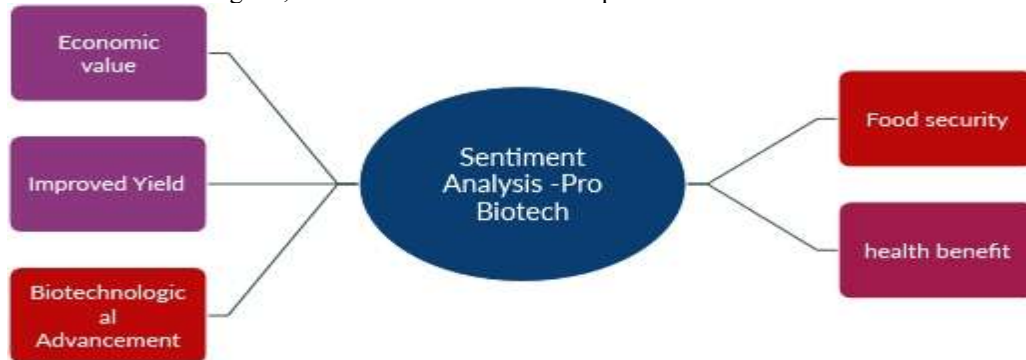
Research Objective One: Find out the major arguments by experts for the introduction of genetically modified foods in Nigeria.

Word Cloud of Frequently Used Words by Interviewees



Sentiment Analysis- Major Arguments for GMFs in Nigeria

The figure below is a mind map showing themes regarding major arguments for the introduction of genetically modified foods in Nigeria, based on the narratives of experts.



Source: Field Work 2026

Figure 2 above shows the themes that emerged from the major argument for the introduction of genetically modified foods in Nigeria, based on the narratives of experts, the themes are economic value, improved yield, biotechnological advancement, food security and health benefits. This presents the major argument in support of the introduction of genetically modified foods in selected television channels in Nigeria.

Research Objective Two: Find out the major arguments by experts against the introduction of genetically modified foods in Nigeria.

Anti-Biotech/Against the Introduction of GMO

The figure below is a mind map showing themes regarding major arguments against the introduction of genetically modified foods in Nigeria, based on the narratives of experts.

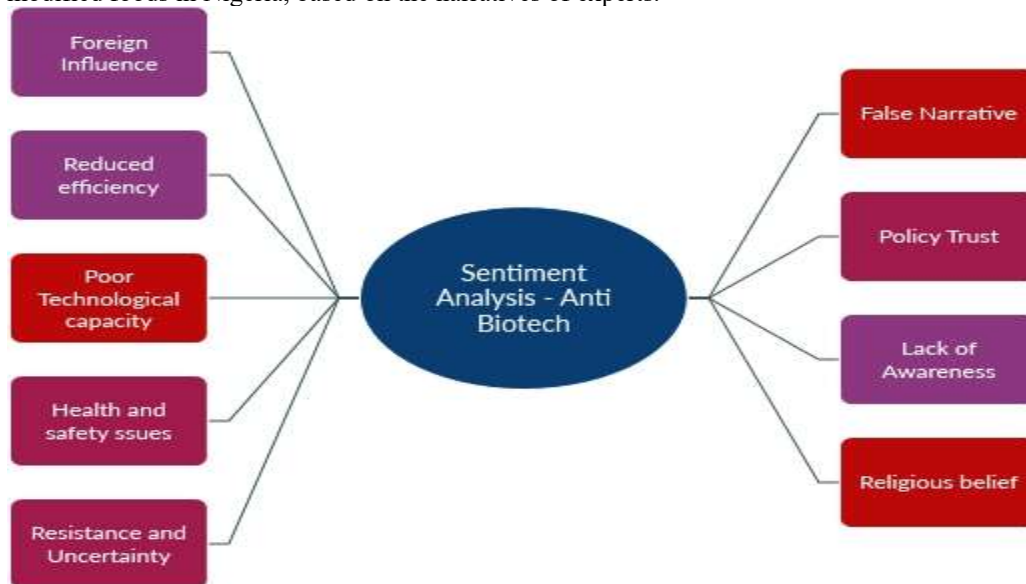


Figure 3: Anti-Biotech/Against the Introduction of GMO

Figure 13 above shows the themes that emerged from the major argument against the introduction of genetically modified foods in Nigeria, based on the narratives of experts, the identified themes are foreign influence, reduce soil efficiency, poor technological capacity, health and safety issues, resistance and uncertainty, false narrative, lack of policy trust, lack of awareness and religious belief. This presents the major argument against the introduction of genetically modified foods in selected television channels in Nigeria.

Research Objective Three: Find out the communication factors that shape experts interpretation of genetically modified foods in Nigeria

Health and Safety as a contested communication terrain

A significant discovery in communication is that all participants raised concerns in the area of health and safety, making it the most universally cited theme against GMO introduction. Proponents of GMFs utilised health and safety to allay public concerns over the technology's safety, whilst opposing viewpoints employed health and safety as a rationale for scepticism and opposition. This discovery holds considerable importance for scientific communication since it illustrates that a singular topic may be conveyed through fundamentally diverse interpretative frameworks. Thus, even supplying additional scientific data may not inherently settle disputes.

Source Credibility, Awareness and Cultural Meaning

The findings further demonstrate that communication about GMFs extends beyond the transmission of scientific facts. Participants identified lack of awareness and public ignorance as important problems, while another expert emphasised that people tend to trust religious and community leaders and that the identity of the person communicating a message influences public response. The prominence of religious belief also demonstrates that GMF communication occurs within broader cultural and moral systems. Some forms of opposition therefore cannot be adequately addressed through scientific information alone because audiences may interpret biotechnology through religious, ethical and cultural frameworks.

6. Discussion of Findings

Findings from the in-depth interview carried out revealed that experts advanced both supportive and opposing arguments concerning the introduction of genetically modified foods (GMFs) in Nigeria. The dominant arguments in support of the introduction of genetically modified foods in Nigeria, based on the narratives of experts, include economic value, improved yield, biotechnological advancement, food security and health benefits.

Findings from the qualitative data for the study also show the themes that emerged from the major argument against the introduction of genetically

modified foods in Nigeria, based on the narratives of experts, the identified themes are foreign influence, reduce soil efficiency, poor technological capacity, health and safety issues, resistance and uncertainty, false narrative, lack of policy trust, lack of awareness and religious belief. This presents the major argument against the introduction of genetically modified foods in Nigeria. Some of the arguments of the participants that spoke about economic value include:

Well, in this kind of maize there is no disadvantage the only form of disadvantage that people may claim, which is not peculiar to GMOs, it is common to all hybrid maize, is the fact that you have to go back and buy the seed from where it is being produced. — Participant 1

If I want to wake up tomorrow and see a new set of yams in the market within the next one or two months, or if I want to be able to buy maize even as I'm walking on this our street, who are the people that can do that? Obviously, it won't be the aged farmers, it is the young ones who are technologically savvy... embracing off-season cropping will go a long way in elevating hunger in our food system. — Participant 5

Also, the people who will patronize you, they are customers that is your market. You don't want to tamper with your market, you don't want to destroy your market, because if you destroy your market, at the end of the day you will still be the one to incur the loss. — Participant 6

While some of the arguments of the participants who spoke about improved yield are highlighted below:

Unless if, for example, when you plant within 1 acre and it gives me, let's say, 20 tons, I want to introduce a technology that I will use the same one acre to generate, let's say, 100 tons there is nothing bad in that, it is just one of the benefits. — Participant 3

High yield, tolerance to abiotic factor, or whatever. — Participant 6

I'm talking about the previous Sampea. For example, the Sampea 20-T was introduced to address the problem of Maruka that was dealing with the previous Sampea variety, and they had tried a lot of methods before, but it was not really working. — Participant 4

Some other experts highlighted health benefits and safety as the main argument for introduction of genetically modified foods, their argument is highlighted below:

Another reason why I said it is safe is in the aspect of food and feed safety. Food is for human consumption while feed is for the animals, and for the food and feed

safety, we conducted a compositional analysis where we looked at the concentration of the protein. — Participant 4

By the time you finish the issue of breeding and you come up with another variety, then we could as well say that hybrid seeds are also not safe — [but] they have been proven to be safe. — Participant 8

So I'm already talking about the policy implementation. So, in my own opinion as a seed scientist, I think it is safe for human consumption. — Participant 8

From everything that I just explained now, it is not dangerous for human consumption because it is just the genes that you are altering. — Participant 2
I cannot disclaim the fact that has to do with human health, but for me, in agriculture, I do not see it as unsafe. — Participant 8

While some others highlighted that genetically modified foods as possible panacea towards food security in Nigeria, their arguments are highlighted below:

There's nothing bad in introducing a technology that can aid food production, in the sense that, for example, some foods that will take maybe 6 months to grow, you can say okay, in 3 months I want you to be good for consumption — or you can say that is early maturity. — Participant 3

The people that have not adopted GMO foods, we call them hunger-striking countries that is, countries whereby you are moving about on the street and you can see people dying of hunger because of food. Food shortage countries are those that have food to eat but are already on amber lights, and this is the category where Nigeria belongs. It will amaze you that countries where GMOs are being planted and consumed are better off in agriculture and more food secured. — Participant 2

I want to wake up tomorrow and see a new set of yams in the market within the next one or two months... embracing off-season cropping will go a long way in elevating hunger in our food system. — Participant 5

The stark contrast between the uniformly positive arguments-for theme set (economic value, improved yield, health/safety, food security) and the uniformly critical arguments-against theme set (health and safety issues, lack of awareness, religious belief, plus six further-but-unelaborated concerns) is itself a notable finding. It suggests that expert discourse on GMOs in Nigeria is not organised around a single continuum of

more-or-less supportive, but around two largely separate argumentative repertoires that experts move between depending on rhetorical purpose one repertoire mobilised to justify adoption, another to explain resistance to it.

Strikingly, health and safety appear as a cited concern in the arguments-against theme (all participants) and simultaneously as a cited reassurance in the arguments-for theme (3 participants). Here is an excerpt from one of the participants regarding that:

So anyway, those are some of the things that the suppliers of this GMO seeds are preaching, that it is high yielding, this and that. But the scientists are now saying it is not good for our environment and even the health of consumers too. — Participant 1

This is not a contradiction so much as evidence that health and safety is the central contested terrain of the entire GMO debate in Nigeria the same category of concern is deployed by proponents to reassure and, in other moments, to acknowledge public anxiety. This dual invocation of health and safety as both the primary justification and the primary source of resistance underscores why it should be the central focus of any public communication. Closely related to health and safety is lack of awareness. Some of the excerpts that highlight this include:

The truth is even some of the foods that you consume in Nigeria are products of GM. So, the major problem is ignorance and laziness to carry out simple research. But you see, Nigerians love a lot of hearsay. — Participant 2

Well, that is just because of ignorance of the people... the lack of knowledge that people have about it, but GMOs are safe. — Participant 6

The prominence of religious belief as a distinct sub-theme is also worth dwelling on. Participant 9's framing that genetic modification may be perceived as encroaching on divine creative authority situates GMO resistance within a cosmological and moral register that cannot be resolved through scientific literacy campaigns alone. Some excerpts from the interviewees on religious beliefs are highlighted below:

You see, one thing you must understand is that people tend to trust their religious or community leaders, and as a result of this they have a kind of sentiment, having placed their trust in this category of people. So a lot really now depends on who is saying what, and that is one of the factors that determines the noise. — Participant 8

God that can create life and create beans so when you are trying to do this whole process of genetic modification to them, it is like you're trying to create a

new being; maybe it does not resonate with their spiritual beliefs. — Participant 9

This finding cautions against science-communication approaches that treat public skepticism purely as an information-deficit problem (a critique long made of the deficit model in science communication; see Wynne, 1992), since religious and cultural meaning-making operates on different terms altogether.

The findings of this study resonate most strongly with the Constructivist Theory because experts were actively constructing different meanings of GMFs: Supporters constructed GMFs as tools for development, innovation, and food security. Opponents constructed GMFs as threats to sovereignty, health, environmental sustainability, and cultural values. The themes of foreign influence, policy distrust, religious beliefs, and false narratives show that perceptions of GMFs are not based solely on scientific facts but are socially created through discourse and interpretation.

The observation that experts articulated GMFs in terms of economic value aligns with research indicating that biotechnology might augment farmers' earnings by improving production and minimising losses from pests and illnesses. Elena, Ramona, and Holban (2018), discovered that genetically modified crops have produced substantial economic advantages for farmers in underdeveloped nations via increased yields and enhanced efficiency. Klümper and Qaim (2014) similarly indicated that the introduction of GM crops correlated with significant increases in farm profitability and agricultural production. The subject of enhanced yield supports the conclusions of Brookes and Barfoot (2020), who said that genetically modified crops have substantially augmented worldwide agricultural output by elevating crop yields and minimising yield losses. Akinbo et al. (2021) similarly observed that advocates of GM technology in Africa often highlight its capacity to enhance food supply amid climate change and population expansion.

The health benefits framework described in this research is also evident in the literature on biofortified crops. De Steur, Mogendi, Blancquaert, Lambert, Van Der Straeten, and Gellynck (2014) contended that genetically modified crops, such as Golden Rice, has the capacity to mitigate micronutrient shortages and enhance public health outcomes. Similarly, Qaim (2020) observed that nutritional improvement is a primary public health rationale for agricultural biotechnology.

The discovery that experts expressed apprehensions over foreign influence significantly bolsters critical viewpoints in the literature that see GMFs as tools of external domination over African food systems. Howard (2015) contends that transnational firms use patents and intellectual property rights to exert control over seeds and agricultural output. Kamau, Odhiambo, and Mwangi (2025) assert that GM technologies are often advocated via discourses of food security, concurrently augmenting corporate dominance in African agriculture.

The subject of diminished soil efficacy highlights concerns articulated by Fatima, Magomedova, and Parvez (2024), who contended that intensive biotechnology-driven agricultural systems might lead to ecological imbalances and prolonged environmental deterioration. Stone and Glover (2017) observed that detractors often link GM agriculture to unsustainable agricultural methods and diminished biodiversity.

The discovery about inadequate technical competence aligns with research highlighting the physical and institutional obstacles to biotechnology adoption in underdeveloped nations. Masehela & Barros (2023) noted that several African nations lack the regulatory, scientific, and technological capabilities necessary for efficient biotechnology governance.

Health and safety risks are well reported in the literature. Cabelkova, Sanova, Hlavacek, Broz, Smutka, and Prochazka (2024) discovered that public trepidation over the possible health ramifications of GMFs continues to be a major obstacle to their adoption. Costa-Font, Gil, and Traill (2008) indicated that consumer opposition to GM foods is often associated with perceived health hazards and ambiguity over long-term impacts.

The themes of resistance and uncertainty correspond with Verpaalen's (2024) results, which indicate that doubt about scientific discoveries often fosters public scepticism and opposition. The idea of deceptive narratives aligns with research on disinformation and media discourse. Lynas, Adams & Conrow (2025), discovered that media portrayals often influence public views of biotechnology via selective interpretations, exaggerations, and conflicting narratives. This indicates that experts' apprehensions over misleading information are not exclusive to the Nigerian setting.

The issue of unawareness corroborates the results of Gbashi et al. (2021), who noted that public understanding of biotechnology is notably deficient in several African nations, thereby fostering

misunderstandings and opposition. Dolapo et al. (2025) observed that insufficient public education continues to shape attitudes of GMFs in sub-Saharan Africa.

The discovery that religious belief affects hostility to GMFs corresponds with research indicating that food preferences and perceptions of biotechnology are influenced by cultural and religious values. Waldhof & Kopp (2024) discovered that ethical and moral factors often influence consumer perceptions of GM foods. In a similar vein, Ogunwola (2025), in his examination of the ethical ramifications of genetically modified foods (GMFs) in Nigeria through the lens of the Yoruba ethical philosophy of *Omólúàbí*, asserted that the scientists responsible for GMFs disregard significant food taboos and abominations prevalent in various cultures and religions. Christians, Jews, and Muslims promptly rejected this GM/Hybrid tomato upon its distribution in the United States, leading to its eventual prohibition by the U.S. Food and Drug Administration due to its association with life-threatening intestinal haemorrhaging (Smith, 2017).

7. Conclusion

This study examined expert perspectives on the major arguments for and against the introduction of genetically modified foods in Nigeria. The results indicate a multifaceted and divided expert dialogue. Proponents of GMFs highlight their prospective economic advantages, enhanced agricultural productivity, role in biotechnology, contribution to food security, and potential health benefits. On the other hand, resistance is based on health and safety apprehensions, insufficient understanding, external influence, potential impacts on soil productivity, limited technological capability, ambiguity, disinformation, scepticism about policy, and religious factors.

The results indicate that the GMF discourse in Nigeria cannot be comprehensively grasped thru a purely pro- or anti-biotechnology lens. It signifies a convergence of empirical data, food-security requirements, economic motivations, institutional capabilities, ecological issues, cultural factors, and public confidence.

From a communicative standpoint, these results indicate that the GMF debate transcends mere disagreement on biotechnology; it is a struggle over the definition, interpretation, and dissemination of the technology. The interpretations of GMFs are influenced by knowledge, the reliability of sources, institutional confidence, cultural principles, and

conflicting stories. The transmission of GMF-related information in Nigeria should evolve from merely transmitting scientific data to fostering transparent, culturally attuned, and interactive dialogue with various audiences.

8. Recommendations

In light of the conflicting perspectives regarding the implementation of GMFs in Nigeria, governmental and regulatory bodies ought to formulate policies that optimise the agricultural and nutritional advantages of GMFs, while concurrently addressing issues pertaining to environmental sustainability, human health, biodiversity preservation, and socioeconomic equity. Ongoing scientific evaluation and public communication of research outcomes must be prioritised to facilitate evidence-based decision-making.

Furthermore, science communication efforts have to embrace culturally and socially attuned strategies that acknowledge the role of religious figures, community influencers, and other credible communicators in moulding public perceptions of contentious scientific advancements.

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The Impact of Technological Development On National Security and Arabic Public Policies in The Twenty-First Century

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Abstract. The research studies the impact of technological development on Arab national security and Arab public policies. The research studied the concept of modern technology and identified its importance, advantages and disadvantages. The research addressed the nature of Arab public policies, mentioning the most important factors influencing Arab national security and Arab public policies, the study determined the impact of modern technology on Arab national security and Arab public policies from several aspects, including financial technology, the digital economy, and cybersecurity. It also identified the most important challenges and opportunities related to the use of technology in the Arab world.

Keywords: Technological Development, National Security, Arabic Public Policies.

1. Introduction

The impact of this scientific and technological revolution includes concepts such as international relations, national security, public policies and other aspects concerned with countries, and developed countries by virtue of their progress and development among the first countries to possess technological outputs and work on them in their political and economic activity. With the advent of globalization, the impact of this technological output is not limited to developed countries, but has become widespread in various developed and developing countries alike.

Among those affected by these technical and information outputs were the Arabic countries. The Arabic region was not isolated from the progress and technological development taking place, with the

difference between Arabic countries to the degree of vulnerability to this revolution. The transformation taking place in the world affected the Arabic region, and one of the aspects of this impact is its impact on what is known as Arab national security and Arabic public policies. Thus, technology extended to enter the military, economic and Arab political side, and some Arabic countries apply what is known as cybersecurity and e-government. The digital economy are all factors influencing the outputs of this revolution, and in this period characterized by rapid and huge transformation, the challenges of applying these technical outputs in the Arabic region have emerged, and the pros and cons of this revolution have emerged, hence the need to search for possible ways and opportunities to benefit from this revolution and its various outputs.

1.1 The Problem of the Study

The scientific and technological revolution constitutes a qualitative and important event in contemporary history, the great changes and profound transformations it brought with it in human history, the impact of this revolution on the Arab world, and on Arab national security and Arabic public policies, and its creation of great challenges and important developments, based on all that, the following main question can be asked:

- To what extent has technological development and progress affected the security and policies of Arabic States in the twenty-first century?

A number of sub-questions arise from this main question:

- What are the factors that led to the

emergence of technological progress and development?

- What is the technological and information revolution and what are the concepts associated with it?
- What is the relationship between the technological revolution and Arab national security and Arabic public policies?
- What are the main challenges facing Arab society as a result of the technological and information revolution?

1.2 The Importance of the study

The importance of the research stems from the fact that it examines one of the most important topics in contemporary history and international relations. It is the subject of technological progress and its role in influencing the region's Arabic policies and national security. Its importance lies in the fact that it focuses on the applications of the Arabic region these technical outputs in matters such as cybersecurity, digital development, digital economy and e-government. It examines possible opportunities to achieve the greatest benefit from these technological and information outputs.

1.3 Objectives of the Study

This research aims to identify and study the following points:

- Defining the concept of the technological and information revolution and study the concepts associated with it.
- Showing concepts related to Arab national security and Arabic public policies.
- Clarifying the factors affecting Arab national security and Arabic public policies.
- Determining the impact of technological and information progress on Arab national security and public policies Arabic.
- Studying the most important challenges facing the Arab society as a result of technological and information influence and development.
- Researching on possible opportunities to benefit from technological and information outputs.

The First Topic

Technological Development Concept and Importance

1. The nature of technology and its importance:

The concept of technology is a broad and complex concept that cannot be controlled because of the many things that this concept enters and addresses. In general, the mind is attracted when mentioning the word technology to the various developments and technologies that have been developed and used in all political, military, economic and other fields and levels.

There are many definitions that deal with technology, including the following:

Technology is a set of ideas and knowledge based on science, used to develop tools and devices and simplify daily life. It has multiple sources, including people such as scientists, engineers and innovators who work on developing technology, and it also includes information such as scientific knowledge and experiments that are used to develop technological ideas. There are also limited and unlimited primary resources such as raw materials and energy, and various tools and machines that help in the production and design of technology and various energy sources. Technology contains two elements that are the time and capital. It is the time it takes to produce, improve and develop technological ideas, which together contribute to influencing society, the economy, politics and other various fields, and this definition is one of the most comprehensive and broad definitions that dealt with the concept of technology (Abu-Swailem, 2024).

Technology is defined as the source of knowledge devoted to toolmaking, processing and material extraction, described as the products and processors used to simplify daily life. Also, technology is applied in all areas of life such as education, communications, transportation, manufacturing and commerce (Goraneh, 2022).

- Information and communication technology can be defined as all the consequences of the integration of computers, wired and wireless technology, microelectronics and multimedia as new forms of technology. They have superior capabilities to produce, collect, store, disseminate and retrieve information in an unprecedented manner and rely on text, sound, image, movement, color and other interactive communication effects, both public and personal, and used in all fields and levels (Al-Sawalma, 2015).

These are some definitions of the concept of technology large and broad, which differed among themselves through the angle from which it is

viewed. In general, technology is a set of means and tools linked through a network of data and information and connected via satellites and computers that enable access to knowledge. It carries out many tasks and formulates many things, and the intervention of technology in all fields and levels such as industry, trade, economy in general, military issues, education, government systems and other fields. There is no doubt that technology exists in one form or another and to varying degrees in different international legal systems.

2. The importance of technology, its advantages and disadvantages:

Technological and technical developments play an important and significant role in various areas of life. They have importance in many aspects, perhaps the most important of which are the following:

- Facilitating communication between people: Through technological and technical outputs, people can enhance the ways of communicating with each other through mobile phones, the Internet and other technological means.
- The development of knowledge and science, where technology contributes significantly to accessing, earning, transferring and assisting in the development of information. This constitutes a huge scientific and knowledge revolution that helps facilitate human life by increasing inventions in various scientific fields, such as providing factories and laboratories with machines, technological tools and other technical means.
- Solving human problems so that it contributed to solving various human problems, especially at the present time, due to the great development that exists and takes place in technological and information systems. This helped technology to be a factor that facilitates communication between humans and saves effort and time.

Technology is also important at the business level, as it offers many benefits, including the provision of many mechanisms that contribute to raising the efficiency and productivity entrusted to it, as well as speeding up and liquidating the work process. It provides many computer services that help achieve accuracy in financial transactions. Also, technology contributes to raising the level of competitiveness, both at the level of companies, institutions and countries (Salah, 2017).

These are some of the most important points that show us the importance of technology in the current reality of the international community. Perhaps the

most important of them is the process of communication and facilitating this communication between countries.

As for the advantages and disadvantages of technology, they are the following:

-Advantages:

Technology has many advantages, the most important of which is facilitating communication with others, as technology allows people to communicate with each other. So, anyone in the world can communicate with people who are geographically far from it, and this has great benefits in practical and personal life.

Technology is also important in terms of providing technology and the Internet, through which large and huge amounts of information are available in all aspects of life. The useful and good thing is that this information is easy to access and widely available, and this is a great saving of effort and time.

Technology has an advantage in that it is a great entertainment factor through the Internet, movies, music, etc. Perhaps the most important feature of modern technology is speed, as through technology, individuals, countries and companies can do different things in all fields very quickly.

-Disadvantages:

One of the great advantages of technology is that it has created many defects, perhaps the most important of which is pollution, as the outputs of this revolution and the industrial and electronic waste it entails represent a factor of pollution to nature, soil, water, air and others as a result of these various pollutants.

Technology can also be a time-wasting factor through many members of society wasting their time and energy on activities that are not important due to the availability of various technical and entertainment devices (Shreim, 2018).

Technology also has a great impact on human health, although technology has contributed to saving effort on humans and providing well-being, but there are many damages that result from it, as the use of technological tools and devices causes stress and creates many different health and physical problems.

It must be mentioned that the most important defects that resulted from technological and technical

development are related to the problem of cyber-attacks, threats, espionage and security penetration. These attacks affected many developed and developing countries alike and prompted countries to develop solutions in order to combat these attacks and enhance cybersecurity.

Here we have reached the conclusion of the first section, which dealt with the history of technological development and the nature of technology in its contemporary sense and touched on the importance of technology in various aspects. We found its great importance manifested in securing communication between various countries, international organizations, transnational companies and individuals. We also found that modern technology has many advantages and at the same time involves many disadvantages.

The Second Topic

Arab National Security and Arabic Public Policies

1. The Nature of Arab National Security and Arabic Public Policies:

Arab National Security:

Today, the Arabic region is going through chaos and great confusion, as a number of factors. Reasons have occurred that have affected the structure of Arab national security from revolutions and the spread of the phenomenon of terrorism, various crises from the political and military aspects. The weakness of Arabic regimes in addressing these successive crises in turn greatly affected and weakened the security and safety of Arabic peoples. This is what caused societies a great responsibility in addressing and finding solutions to these successive and crisis problems.

The concept of Arab national security can be defined as the sovereignty of the Arabic nation over its lands and wealth and providing a state of reassurance to members of society against any external threat (Ayub, 2003).

It can also be defined as the ability of the Arabic nation to protect its internal values from external threats, protect its values and beliefs, and combat and suppress all that harms the nation's existence and existence (Al-astal, 2020).

The concept of Arab national security in the broad sense is described as concerned with the security of Arabs who are on an extended territory, that is, on a geographical area extending from the Arabian Gulf to

the Atlantic Ocean. This human group is linked to its members with common characteristics, such as history, civilization, language, religion, unity of destiny and common interests, and the goal that these societies aim to reach a state of security and tranquility by following policies against the internal and external threats to their existence. Here the concept of Arab national security appears as a capacity. The nation Arabic defend itself, its rights and existence, preserve its independence and sovereignty over its territory, and stand in the face of all challenges and risks through the development of Arabic capabilities in all fields. This can only be achieved through the establishment of Arab unity in all fields, especially military and economic, in a way that serves the interests of the Arabic nation and guarantees peace and security for Arabic societies(Khalayleh, 2021).

To achieve this, there must be a set of conditions, which cannot be mentioned in this research, but the most important of which are the following:

- The existence of genuine, unified and solidarity democratic systems on the basis and action plans that include their geographical boundaries.
- The existence of comprehensive development and an equal and integrated economy under a national leadership that believes in the right of the peoples of the Arab world to their unity or unity, and work to increase the awareness of Arabic societies.

In talking about Arab national security, we must mention some of the concentrations of this security, including the following:

- Cohesion among members of Arab society is achieved by belonging in the hearts of individuals to one homeland, agreement on the same behavioral and moral principles. It creates a kind of sympathy among the members of Arab society with the aim of achieving intimacy and affection and avoiding fanaticism and division.
- Working to achieve justice and equality, and providing peace and security is the way to reach justice and equality.
- Freedom is freedom of opinion, freedom of expression and freedom of belief, as a fundamental human right provided for in various international legislation dealing with human rights.
- Force means force here in all its military, economic and technological meanings and components. It helps to contain problems, address mistakes, and spread leniency and complacency in what could disturb the state of peace and security in Arabic societies

Arabic(Al-Sharkasi, 2017).

Through the above, the pillars of Arab national security can be defined as the methods and mechanisms used by the Arabic nation in managing the dangers that threaten it and threaten its unity, independence and political stability in the face of other countries(Al-Sharkasi, 2017).

It can be said that Arab national security is a set of foundations and rules that Arabic countries seek in order to strengthen the state of peace and security in the Arabic region. It helps to confront all the dangers and challenges surrounding Arab society, work to suppress them and spread a state of reassurance in the hearts of the citizens of Arabic countries, in a way that contributes to raising awareness, advancing all fields. It achieves progress and develops. This requires primarily securing the requirements of a strong state, especially in the military and economic field.

Public Policies Arabic:

Public policy is one of the most important fields in political and administrative science, as it aims to achieve effectiveness and justice in societies, and public policy follows the decision-making process, which is one of the most difficult tasks that societies and governments suffer from in the current era.

Arabic public policy can be defined as a comprehensive process of decision-making and setting goals. This is to meet the needs of society in general and aim to meet the needs of society in general, improve public life in Arabic countries and ensure economic, social and environmental development. Arabic public policy is based on a set of elements, starting with analyzing the problems facing Arabic societies, setting priorities and formulating policies, and then reaching the stage of implementation, monitoring and evaluation, and to carry out this process. It is necessary to use tools and concepts In short, public policy can be defined Arabic as a set of government activities, whether pursued directly or through agents, that affect the lives of citizens mainly(Haja, 2023).

It can be said that public policy Arabic a goal that Arabic governments seek to achieve, monitor and supervise the mechanism and proper implementation. It verifies the commitment of all, whether individuals or institutions, and the main goal that it aims to achieve is to achieve the public interest, achieve benefit and provide basic services.

2. Factors Affecting Arab National Security and Public Policies Arabic:

There are a number of factors and variables that affect significantly the structure of Arab national security and Arabic public policies, and as for the most important of these factors affecting Arab national security. They are the events and factors that destabilized Arab national security, the most important of which are the following:

- The weakness of the Arab regional organization, represented by Arabic institutions, foremost of which is the League of Arabic States, and its inability and inability to keep pace with the changes in the region Arabic.
- The absence of Arab cohesion and the primacy of Qatari interests over national interests, which has caused chaos and instability and is witnessing a state of instability, which has brought with it major security and strategic challenges.
- The multitude of the foregoing factors, their gravity and their wide spread have caused very dangerous phenomena in Arab society, including the phenomenon of terrorism, which has emerged in a number of States in the Arabic region.
- Foreign interference in the Arabic region, foremost of which is the United States intervention in the region since 1991, after the dissolution of the Soviet Union and the transformation of the world order into a unipolar system. The dissemination of its culture through soft power and the realization of its interests through its claims forms a new Eastern Mediterranean order, and its support and dedication to the Israeli presence(Al-Tai, 2017).

These are some of the factors affecting Arab national security, which greatly illustrate the weakness of Arab national security and the deficit that surrounds it. It keeps it in a position of weakness and dependence on the outside, as most of these factors weaken Arab national security and make it unable to achieve its goals.

As for Arabic public policies, there are also a number of factors affecting them, the most important of which are the following:

Political Factors:

The stability of the political system is one of the factors influencing public policies Arabic as it significantly affects the ability of governments to implement policies and make decisions.

The presence of political parties and lobbyists where they exist greatly influences policy direction and the formation of the public agenda.

Economic factors:

The nature of the economic system in a country determines how the economy is directed and wealth is distributed.

Economic development affects the government's ability to finance and support public policy programs and decision-making (Finish, 2023).

Social factors:

Demography so that the demographic structure plays an important role in influencing public policies, whether positively or negatively.

Civil society and social ties are in terms of its role in policy-making and participation in the democratic and popular process within society.

These are the most important factors affecting public policies Arabic and must be taken into account in order to avoid the risks resulting from them and support sustainable development programs and achieve political, economic and social stability.

These are the most important factors that affect Arab Arabic public policies and national security, which must be taken into account when formulating public policy Arabic and Arab decision-making. These factors are the ones that must be relied upon by Arabic public policy makers in order to maintain the state of Arab peace and national security in the face of external challenges and dangers. One of the most important solutions to them is Arab solidarity, standing together and raising internal differences.

It must be mentioned that one of the most important factors affecting public policies Arabic. Also, Arab national security is the development in the technological field as a result of the information and technological revolution, which I will mention in the next section.

The Third Topic

Technological Development, National Security and Public Policies Arabic

1. Areas of impact of technological development on national security and public policies Arabic:

The ICT revolution and its development have a significant impact on Arab national security and Arabic public policies. The areas of influence produced by the ICT revolution vary, and these areas include the impact of digital technology on Arab national security and public policies, Arabic through digital technology, high levels of security can be achieved. It helps enhance national security and Arabic public policies, and there is also the impact of cyberspace and the digital threat, where cyberspace poses a major challenge. For national security, this requires searching for ways to enhance protection from hacking attacks and digital espionage. There is also the field of artificial intelligence and intelligence analysis, through artificial intelligence, it is possible to help analyze big data and guide public policies, taking into account the ethical aspects and the challenges associated with it. There is also a significant and important impact of the technological and information wealth represented by digital transformation and community participation, through the transformation of the governments of Arabic countries to digitization in various sectors, especially the application of the digital economy and what It has this process of promotion and development in all sectors, taking into account the disadvantages that arise from that process.

In the future, we will study the most important aspects of the impact of the technological revolution on Arab national security and Arabic public policies, with examples of some Arabic countries:

Emerging Technology and the Digital Economy:

Many Arabic countries have relied on what is known as emerging technology and the digital economy in order to achieve their goals and directions and achieve sustainable development. One of the Arabic countries that have paid great attention to technology is the U.A.E. country. The UAE Arabic has a strategic vision to achieve sustainable development through the establishment of smart cities that rely heavily on artificial intelligence and technical development. UAE has made a qualitative leap in the overall index of digital government development. Suddenly in first place in the Arab world and eighth The UAE Arabic has made great progress in the field of telecommunications infrastructure as one of the remarkable things in the country U.A.E. It has made progress in the field of e-participation, as the UAE government seeks significantly to enhance the participation of citizens in policy-making, government decisions and public services, with a

focus on the electronic aspect in this field(Hisham, 2023).

The State of Qatar has adopted a clear mechanism to develop the level of the digital economy, as it has great progress in the degree of digitization and reliance on it in various economic sectors. It was evident the extent of the progress of the State of Qatar through its good handling of various crises, including the Covid-19 crisis, which greatly applied technological matters and maintained various economic activities in a digital way(Hisham, 2023). Algeria ranked in a fairly advanced position with regard to the digital economy in 2022. The perseverance of Algeria in developing reliance on the digital economy develops its various economic activities. It takes into account the weakness of Algeria in some aspects of this field, such as its weakness in network readiness and in global technical innovation, which is due to the inability to absorb technology effectively(Kenz & Mohamed, 2019).

These are examples of some Arabic countries that are advanced in the field of technology and the digital economy. This issue is not limited to the aforementioned countries, but the subject of technology and the digital economy is almost widespread in various countries Arabic with the difference in the degree of progress and development in this field. It is clear the extent of the impact of technological development and reliance on the digital economy in Arabic public policies and in the decision-making process in Arabic countries.

Fintech:

Recent years have witnessed a remarkable development in the financial technology sector in the Arab world, especially in the Arab Gulf region such as the United Arab Emirates, Arabic Saudi Arabia and Bahrain. The Arabic region has found that relying on technological progress and focusing on financial technology is an option to advance the economic sector and achieve economic development, and as for the most important countries Arabic in the financial technology sector are the following:

-United Arab United Arab Emirates:

In the United Arab Emirates, Arabic there are nearly a third of the fintech startups in the Middle East and North Africa. The United Arab Emirates is witnessing a great development in this field. It is a start-up center and a launching pad for the regional technology-based financial sector, in which the financial technology market is developing at a faster pace than

other countries due to the faster adoption of digital banking services from the state, companies and customers. Its reliance on an advanced technological infrastructure, as indicated by a group of reports that the UAE contains the largest number of startups in the field of Fin Tech, i.e. startups and technology-based companies.

-Egypt:

Egypt is witnessing an increasing rise in the field of digital technology, whether by the state or by companies. This is in line with the cooperative efforts of the Egyptian government and the Central Bank of Egypt, which is developing payment systems to become a cashless economy, and these efforts have contributed to enhancing digital payment services, mobile money and smart electronic wallet. So, the Egyptian government is also working to encourage emerging technology companies to integrate into the financial system, and in summary, Egypt has wide and huge potential for expansion and development in financial technology due to its large economy, high population and the government's desire to develop this sector.

-Saudi Arabia:

The government interest in the Kingdom continues to grow towards reliance on financial technology and the number of financial technology companies is increasing. The Kingdom has built a national technology strategy that extends until 2030, from which Saudi Arabia aims to make the country one of the most important and top 10 global centers for financial technology with the development of startups in this field.

Bahrain:

Bahrain is taking great steps to develop its own financial technology as part of diversifying its economy, achieving development and creating job opportunities in this field. The Bahrain Economic Development Board focuses on attracting foreign investments in the field of financial technology by providing various facilities(Asma & al-Khair, 2013).

These are the most important Arabic developed countries in the field of financial technology, while the rest of the Arabic countries are somewhat far from the application of financial technology due to the lack of financial technology infrastructure. Most of the Arabic countries are still of the lowest countries in the field of financial technology. This puts challenges

on Arabic public policy and Arab national security and must be overcome by developing public and comprehensive policies through which Arabic countries aim to develop the financial technology sector in order to reach Progress in this field and bridging the gap between them and developed countries in this field.

Cyber-attacks and cybersecurity:

Cyber-attacks are defined as attacks that take place over the Internet and target the sabotage and destruction of digital infrastructure. These attacks have a wide range of forms such as hacking, espionage, security penetration and spreading viruses. These attacks have great repercussions and pose a major threat to global security due to the fact that they affect various global systems in their economic, military and other aspects. This requires strengthening cybersecurity to address the risk of these attacks and reduce their severity.

The Arab world is not isolated from the impact of these attacks, as these attacks address the digital infrastructure system and work to harm it. This is imposed on countries Arabic great efforts to enhance cybersecurity, and Arabic countries are still far from the subject of cybersecurity. However, there are some Arabic countries that have developed a law on cybersecurity that deals with the physical legal system of crime and its procedural legal system, and the development of an international legal system for cooperation in this framework, and from Arabic countries that Adopted a cybersecurity law Jordan and Morocco.

There are some countries that have only developed special laws related to combating crimes related to the media and communication, i.e. electronic crimes, and these countries include Saudi Arabia, the Emirates, Sudan, Lebanon, Yemen, Kuwait, Egypt and Bahrain. There are countries that have ratified laws on procedures related to tracking cybercrimes such as Algeria, but with regard to legislation related to electronic transactions, most Arabic countries have developed such legislation such as Jordan, the Emirates, Bahrain, Syria, Egypt, Saudi Arabia and others (Arabic Vision for Cybersecurity: Reality - Challenges - Opportunities, 2021).

These are the most important points about cybersecurity in the Arabic region. It is clear that the weakness of this region in the issue of cybersecurity. The important thing is that this matter constitutes one of the biggest challenges that threaten and weaken

Arab national security. To confront the threat of these attacks, it is necessary to develop a unified Arab public policy to apply all necessary measures to enhance cybersecurity and reduce the risk of attacks.

2. Challenges and opportunities for the use of modern technology in Arab national security and public policies Arabic:

Challenges and opportunities related to Arab national security:

There are many challenges that result from the use of modern technology that affect Arab national security, the most important of which are the following:

- * Cyber threats: Cyberspace is one of the biggest challenges threatening Arab national security, as cyber-attacks. We have already mentioned, represent one of the most important threats because of the great danger they entail and the damage they cause to digital infrastructures.

- * Espionage and cyber penetration: Arab national security faces the danger of espionage so that modern technology can be exploited to spy on Arabic countries and steal sensitive government information and military and security information, espionage poses a clear challenge to cybersecurity(Ibn Jalil, 2021).

In order to face these challenges and enhance opportunities for the use of modern technology to serve Arab national security and mitigate the aforementioned challenges. Arabic countries must build and develop their cyber capacity in order to address the growing threat of attacks. This is to carry out the required and necessary technological modernization for that. Arabic countries must create a field for international cooperation in the field of cyber national security that contributes to facing various challenges. Awareness and training in the field of modern technology and in the field of information security must be enhanced and provide workers with all updates in the field of cybersecurity(Masika, 2022).

Policy Challenges and Opportunities Arabic:

- * Digital strategies: One of the biggest challenges facing Arabic public policies is the ability of Arabic countries to develop clear and important strategies for digital transformation in governments, public institutions, digital infrastructures and improve e-government services.

- * Digital divide: Arabic countries must work in

accordance with their public policies to reduce the gap between individuals and societies in accessing the modern outputs of the ICT revolution (Abu-Ghazaleh, 2024).

* Electronic applications: decision-makers in countries must Arabic improve government services and link them to modern technology in order to develop their public policy.

* E-government: This is one of the most important challenges facing Arabic public policy, which is the ability of Arabic countries to develop e-government platforms through which easy access to information and improve transparency and community participation (Abu-Ghazaleh, 2024).

Conclusions:

It is clear from the above that the Arab society is greatly affected by technical and technological outputs that have great pros and cons on the Arab society, especially with the weakness of technological development in most Arabic countries and dependence on external influences, i.e. technological dependency. Thus technological progress and development are a major challenge facing Arab national security and Arabic policies and requires Searching for solutions to confront it and benefit to the greatest extent from the use of modern technology in Arabic societies.

Conclusions and Recommendations:

Results:

1. There are a set of factors that contributed to the emergence of the ICT revolution and its wide spread in the countries of the world. The most important of which is the growth of the economies of developed countries and the emergence of the Internet and its use in all fields.
2. Modern technology is of great importance as it ensures communication between different countries of the world and facilitates this process. In addition, it has a wide range of advantages, the most important is that it is an entertainment factor for peoples and contributes to the provision of information and contributes to solving many problems, and despite these advantages. It involves many disadvantages, the most important health problems, pollution and others.
3. Arab national security and public policies face Arabic a wide range of challenges due to technological development and progress, which must be addressed in various ways, including enhancing cybersecurity and providing the necessary

infrastructure to own technical outputs.

Recommendations:

1. Arabic countries must be aware of all the challenges and opportunities associated with modern technology to maintain their security and stability.
2. There must be cooperation between the governments of Arabic countries among themselves and the countries of the world and international companies in order to develop and possess the necessary and modern technological outputs to support and promote Arabic public policy and achieve sustainable development.
3. Research and studies should be expanded and seminars held on the subject of the impact of technological progress and development on Arab national security and Arabic public policies to identify the progress made in this field and maximize Arabic benefit from it.

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Anger Management and Public Service Delivery in Nigeria: An Exploratory Approach

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Abstract. This study explores anger management and public service delivery in Nigeria. The paper viewed public service delivery as a critical determinant of a nation's social contract which has direct influence on citizens' quality of life and the level of public trust in government institutions. The objective is to determine the relationship between anger management and provision of public sector services in Nigeria, investigate the causes of anger among public servants in Nigeria and to identify and propose evidence-based strategies for the effective management and constructive channelling of anger within the Nigerian public sector. The study employs qualitative research approach utilizing a descriptive and analytical historical methodology. The study is anchored on Expectancy Disconfirmation Theory (EDT), augmented by insights from Attribution Theory and the Social Exchange Theory (SET). The study identified; cruel administration, incompetence and inefficiency, corruption and extortion, reaction to self-failure, lack of accountability and impunity among others as causes of anger in public service. While the effect of anger on public service delivery include; erosion of trust, decreased citizen participation, possibility of societal discontent and reform obstacle. The study recommended enhance communication, improve service quality promoting trust and emotional support as effective ways to management anger in the service.

Keywords: Accountability, Cruel Administration, Public Service, Public Trust, and Service Delivery.

1. Introduction

The efficacy of public sector service delivery is a critical determinant of a nation's social contract, directly influencing citizens' quality of life and the level of public trust in government institutions. In Nigeria, however, public service provision is frequently characterized by systemic inefficiency, corruption, and a pervasive lack of accountability. This persistent service delivery deficit not only impedes national development but also fosters a palpable, collective sense of public disgruntlement.

Anger, as an emotion, is a normal, universal, and unavoidable human experience (Zohuri & Dalili, 2023). When appropriately channelled or "sublimated" it can function as a healthy motivator for moral action and social change (Kabir, 2017). However, when dysfunctional, persistent, and a response to perceived injustice or threat, anger can become a destabilizing force (Videbeck, 2006). In the context of public governance, anger is a a transient, individual feeling. Despite extensive documentation of Nigeria's public service challenges (Ibietan & Joshua, 2013), the emotional landscape of citizen dissatisfaction specifically, the manifestations, root causes, and systemic consequences of public sector-induced anger management remain significantly under-explored. This paper addresses this crucial gap by adopting an exploratory approach. This study aims to comprehensively analyze the bi directional relationship between citizen anger management and the functioning of Nigerian public sector institutions,

1.1 Objectives of Study

The aim of this study is to explore and analyses the dynamics of anger management among public servants in the Nigerian public sector concerning service delivery. Specifically, the objectives of this study are to:

- to determine the relationship between anger management and provision of public sector services in Nigeria;
- to investigate the causes of anger among public servants in Nigeria ; and
- to identify and propose evidence-based strategies for the effective management and constructive channelling of anger within the Nigerian public sector.

1.2 Research Questions

- What is the relationship between anger management and service delivery in the public sector in Nigeria?
- What are the causes of anger among citizens and public servant in Nigeria?
- How can anger be manage in the public sector in Nigeria?

1.3 Research Methodology

The study employs a qualitative research approach utilizing a descriptive and analytical historical methodology. The qualitative method was selected to enable a contextual and explanatory understanding of existing literature. The analysis is presented thematically and chronologically. Data were predominantly sourced from secondary materials, including academic textbooks, peer-reviewed journal articles, conference proceedings, and online resources. Further supporting evidence was drawn from relevant official publications and authoritative news sources.

2. Conceptual Review

2.1 Anger and Public service Delivery A conceptual analysis

Anger is an emotional state that can vary in intensity from mild annoyance to intense wrath and rage, claim (Zohuri & Dalili 2023). Anger is a complex and enigmatic emotion that can be experienced in response to specific stressors. Although this feeling and emotion are quite distinct, aggression is an action intended to harm other people. Psychological tests can be used to gauge the level of rage. Indeed, some people are more irritable than others. Some people don't visibly show their feelings, but they are frequently irritable and

irritated. People who lose their temper easily usually don't handle frustration well. They cannot tolerate the situation and get even more infuriated if it seems unjust in any manner (Zohuri and Dalii 2023).

Anger can be triggered by both internal and external events (Yadav, Yadav, and Sapkota, 2017). In addition to being focused on a specific person or object, anger can also result from worries about internal problems. Systemic issues have plagued Nigeria's public sector for many years. Consistent underperformance in a variety of fields, including infrastructure, security, healthcare, and education, is a widespread complaint. Political meddling, widespread corruption, bureaucratic delays, and inadequate funding frequently result in:

- Delays and lengthy lines: People must wait endless hours to obtain essential services.
- Requests for bribes or other unofficial payments: The normalizing of corruption in order to speed up services.
- Dilapidated infrastructure: Poor roads, crumbling public buildings, and an unstable power source are examples of dilapidated infrastructure.
- Lack of professionalism and empathy: public employees are frequently seen as uncaring or even antagonistic (Ibietan &Joshua 2013).

These problems are more than just practical difficulties, they constitute a basic violation of the social compact, undermining confidence and creating a sense of powerlessness. Anger is a powerful social reaction to recurrent irritation, unfulfilled expectations, and perceived unfairness (Alagbogu & Onuoha 2023).

2.2 Forms of Anger in Nigeria

Social media campaigns and vocal protests: On social media sites like Facebook, Twitter now X, and local forums, citizens are increasingly airing their complaints. They frequently share personal stories of their terrifying encounters with public services. These personal annoyances are amplified into group demands for change through hashtags and online petitions.

Demonstrations and Protests: From small-scale community demonstrations about the dearth of facilities to larger campaigns like #EndSARS, which, despite their focus on police violence, tapped into a larger pool of resentment against government incompetence and impunity.

Disengagement and Cynicism: A more subtle expression is the rise in cynicism and indifference among citizens who, having lost faith, turn to self-help techniques or disengage from public processes, so undermining governmental institutions.

Confrontational Interactions: The instant frustration experienced during service encounters is often reflected in direct, frequently heated confrontations with public authorities.

3. A Theoretical Review of Anger and Public Services Delivery

The Expectancy Disconfirmation Theory (EDT): According to this theory, the discrepancy between the way public services are really performed and what residents expect is what makes them angry. Leon Festinger presented Expectancy Disconfirmation Theory (EDT) in 1957. It was developed based on Cognitive Dissonance Theory (CDT). EDT is a popular framework for comprehending contentment and discontent in a variety of settings, including the provision of public services. According to the theory, the gap between people's expectations and the actual performance of public services determines whether they are satisfied or not; if the perceived performance meets or surpasses expectations, confirmation takes place (Chen 2008). However, disconfirmation happens if the perceived performance is below expectations, which can cause discontent and even anger. When Nigerians' expectations are not fulfilled in the context of public service delivery, they become irate. People may become angry, frustrated, and disillusioned if their expectations of prompt, responsive public service performance and efficient, effective service delivery are not met.

Attribution Theory: According to this theory, how people assign blame for poor service has an impact on how angry they get. One of the most significant social scientists of the 20th century, Fritz Heider, was the original developer of attribution theory. In his book *The Psychology of Interpersonal Relations*, published in 1958, he introduced the idea of "attribution theory." Numerous other scientists, some from unrelated fields, were influenced by his research on social psychology. Harold Kelley expanded Heider's concept of attribution theory to incorporate cause and effect relations about 10 years later. Accordingly, attribution theory is applicable to all branches of psychology that deal with perception, judgment, and thought (Rasdi, 2018). Joseph Kasof introduced attribution theory to creativity in a 1995 special issue of the *Creativity Research Journal*.

The application of attribution theory to creativity is explained in length in this article. Attribution theory states that there are objective and subjective components to creativity. Among the fundamental ideas of attributive theories are:

Locus of Control: People may blame external (like unanticipated events) or internal (like government incompetence) causes for service failures.
Stability: People may view service interruptions as either steady (long-lasting) or unstable (occasional).
Controllability: People may think that service providers or the government may influence the reasons behind service outages.

However, attributive theories implies that citizens attribute service failures to:

- Internal factors (e.g., government incompetence), they are more likely to experience anger.
- Stable factors (e.g., persistent corruption), they may feel frustrated and angry.
- Controllable factors (e.g., deliberate neglect), they are more likely to experience anger and resentment (Rasdi, 2018).

The Emotions as Social Information (EASI) Theory: According to this theory, citizens' opinions and actions are influenced by the information that emotions, particularly anger, provide. Van Kleef created the Emotions as Social Information (EASI) theory in (2009).

The theory, which has been used in a variety of situations, such as organizational behaviour, social psychology, and conflict resolution, contends that emotions are a source of information that shapes social relationships. Mogadeghrad, (2014). EASI theory can be used to better understand how citizens' emotions, such as anger, influence how they perceive and react to service experiences in the context of public service delivery (Mogadeghrad, 2014)

The EASI Theory and Anger in Public Service suggest that:

- Service providers should acknowledge the emotional effect of service encounters and react to citizen complaints with empathy.
- Policymakers create rules and guidelines that promote responsiveness, justice, and respect by considering the emotional components of service delivery.
- Citizen engagement encourages positive interaction and feedback systems to control citizens' feelings and improve service delivery.

The Social Exchange Theory: Sociology, psychology, and anthropology are some of the fields that have contributed to the development of Social Exchange Theory (SET). A number of influential people and their writings, including George Homans (1958), Peter Blau (1964), and Emerson (1976), are responsible for the theory's development. Over time, SET has changed to include different viewpoints and methods. Among the noteworthy advancements are:

1. **Resource Exchange Theory:** This method places a strong emphasis on how social relationships include the exchange of resources, such as material and immaterial commodities.
2. **Reciprocity:** The idea of reciprocity, which emphasizes the value of duty and reciprocal exchange in social interactions, is still fundamental to SET.

According to the SET theory, perceived disparities in the interactions between the public and public service providers are the root cause of citizens' angers (Singh, 2017).

This implies that when public servants do not treat the people fairly or providing them with value, they may become angry and:

1. Decrease cooperation: People may stop interacting with public service providers or cooperating as much.
2. Seek redress: Through complaints or other channels, citizens can try to get their problems addressed.
3. Distrust: People may come to distrust institutions and public service providers.

The SET theory has the following implications for Nigerian public service delivery:

1. Public service providers can foster trust by being fair, transparent, and responsive.
2. Anger can be decreased and public expectations managed with the use of effective communication.
3. Public services can concentrate on providing top-notch services that satisfy the demands and expectations of the public (Singh, 2017).

The Stress Theory: This Theory was designed by Richard Lazarus (1966), Stress Theory, also known as Stress and Coping Theory, has its roots in several disciplines, including psychology, physiology, and sociology. Many scientists and academics have researched and developed the idea of stress over time. The following are the main ideas of stress theory:

1. **Stressors:** Environmental, psychological, or physiological demands are examples of stimuli that lead to stress.
2. **Cognitive appraisal:** The process by which stressors are assessed and interpreted, affecting behavioural and emotional reactions.

3. **Coping:** Techniques and systems for controlling and reducing stress. Webster (2014).

According to this theory, the pressures that public service delivery systems place on citizens can lead to stress, even rage. According to stress theory, Nigerians become irate and frustrated with the way public services are delivered when:

1. **Expectations are not fulfilled:** When public services fall short of citizens' expectations, they may become stressed and feel angry and frustrated.
2. **Inadequate services:** When public services are insufficient, unreliable, or unavailable, citizens may become anxious, which can heighten their resentment and discontent.

3. **Perceived injustice:** When citizens believe that public services are biased or unjust, they may become stressed, which can result in resentment and anger.

According to Stress Theory, Nigerians may become angry and frustrated because of:

1. **Poor service delivery:** Stress and anger among citizens can be exacerbated by inadequate infrastructure, corruption, and bureaucratic inefficiency.
2. **Economic difficulties:** Unemployment, poverty, and unstable economies can make people feel more stressed and irate.
3. **Lack of trust:** When citizens don't trust public institutions and service providers, they may become anxious and irate (Nwinye, 2020).

Public Service Motivation Theory: Irawanto and Primasari, (2015) stated that the Public Service Motivation (PSM) Theory, contends that public servants are driven by a desire to further the common good and improve society. This theory looks at public officials' attitudes and motivations and how these affect the way services are provided. According to PSM, motivated public employees are more likely to develop trust, provide high-quality services, and empathize with citizens. This suggests that:

1. PSM can result in better service quality, which will lessen public anger and boost satisfaction.
2. PSM can increase cooperation and decrease resentment by fostering confidence between the public and public service providers.
3. By lowering stress and burnout, PSM can improve the wellbeing of both residents and public employees (Nwinye, 2020).

3.1 Theoretical Framework

This study is primarily grounded in the Expectancy Disconfirmation Theory (EDT), augmented by insights from Attribution Theory and the Social Exchange Theory (SET).

The Expectancy Disconfirmation Theory (EDT), was developed based on Cognitive Dissonance Theory (CDT) and first presented by Leon Festinger in 1957. EDT is a popular framework for comprehending contentment and discontent in a variety of settings, including the provision of public services. According to the theory, the gap between citizens' expectations and the actual performance of public services determines whether or not they are satisfied; if the perceived performance equals or surpasses expectations, confirmation takes place (Adekunle, 2017). Nevertheless, disconfirmation happens if the perceived performance is below expectations, which can cause discontent and even angry. When Nigerians' expectations are not fulfilled in the context of public service delivery, they become irate. EDT helps identify some of the causes of resentment and contentment with Nigerian public service delivery. It is assumed that people who have high expectations and believe that public services are not performing up to par may become angry, and that people who have low expectations and believe that public services are performing well will also likely become angry.

4. Causes of Anger in Public Service

Anger is an inward reaction to events depending on how one interprets and perceives them. The following are some things that can make someone angry:

Physiological or genetic: It has been demonstrated that children inherit characteristics from their parents, including their mother, father, grandfather, grandmother, great-grandfather, and great-grandmother. Individuals that are prone to anger typically come from homes that are turbulent, disorganized, and lack emotional communication skills (Adedeji, 2023). Some children are born with signs of irritability, touchiness, and easy anger, and these characteristics are evident from an early age.

Sociocultural Factor: Anger is often viewed as a negative emotion; expressing sadness, anxiety, or other emotions is okay, but expressing anger in a violent manner is not. Some cultural backgrounds support violence and anger; research indicates that people from these backgrounds view expressing anger when necessary as normal (Matsumoto, Yoo, and Chung, 2010).

Reaction to Self-failure: It is clear that many adults and adolescents feel furious at themselves for not being able to achieve their potential in their careers and other spheres of life (Adedeji, 2021). If anger is not controlled or expressed constructively, there is a risk that it will lead to self-harm. Around the world, there are suicide cases brought on by debt, academic or professional failure, embarrassment about prior involvement, a desire to cover things up, etc.

Lowest Possible Level of Stress Tolerance: At some point, everyone's capacity for frustration is limited. Stress-induced anxiety frequently reduces a person's tolerance for discomfort, which causes them to view commonplace items as threats to their safety (Singh and Kaur, 2015). People who are emotionally motivated tend to see commonplace events and other people's remarks as direct challenges to their goals and desires.

Tension/Anxiety: In our everyday lives, we deal with tension and anxiety. Anger results from a decrease in tolerance for frustration brought on by elevated stress levels (Seltzer and Kalmuss, 1988). Stress at work and school frequently spills over into our homes, where it impacts our families and vice versa. We refer to this as transferred aggression. Uncomfortable surroundings, including a noisy neighbourhood, a poor road, a filthy environment, and so forth, frequently cause stress and rage in people.

Drug Abuse: The drive for survival comes first. Examining survival strategies often leads people, particularly young people, to take drugs. Drugs can cause people to misinterpret information and experiences, which might agitate and distress them (Adedeji, 2024). Furthermore, it may evoke suppressed memories and emotions, which can be uncomfortable and often extremely irate. When someone is under the influence of drugs, they act without thinking through the consequences.

Cruel Administration/Government: Kasali (2009) asserts that a government that practices cruelty is more likely to promote cultural values based on rage, which in turn encourage violence and aggression among its populace. Adedeji (2023) claims that a number of elements have been shown to be the main causes of popular anger:

Corruption and Extortion: The expectation or demand for bribes (such as "facilitation fees") for services that ought to be provided for free or that have already been covered by taxes is arguably the most upsetting feature. This creates intense animosity by turning a public right into a commodity that can be purchased.

Incompetence and Inefficiency: The operational dysfunction, which includes faulty equipment, lost data, interminable bureaucratic loops, and a general disregard for procedures, creates a sense of time and

effort waste and irritates people greatly.

Lack of Accountability and Impunity: The belief that public employees who perform poorly or commit misbehaviour seldom suffer repercussions is a major cause of anger.

Disrespect and Poor Attitude: People frequently report meeting rude, contemptuous, or dismissive public officials: this dehumanizing experience adds an emotional layer to the transactional failures, making interactions intolerable.

Perceived Inequity and Bias: People become angry about unfairness and discrimination when they think that access to services is determined by connections, wealth, or ethnic affiliation rather than merit.

5. Effects of Anger on Public Service Delivery

The pervasive anger among citizens has significant effects on the Nigerian public sector in the following ways:

Erosion of Trust: It makes it more difficult for public policies and initiatives to receive support from the general public by widening the gap of mistrust between the people and the government.

Decreased Citizen Participation: Disillusioned and angry citizens are less inclined to report problems, take part in civic activities, or have productive conversations, all of which erode democratic institutions.

Possibility of societal discontent: Unresolved anger has the potential to fester and, in certain cases, explode into broad societal discontent, endangering stability and peace.

Reform Obstacle: When people perceive every government move with suspicion, it can be very challenging for well-intentioned changes to be adopted or successfully implemented.

Negative Effect on Public Servant Morale: In a very hostile setting, public workers themselves may suffer from burnout and low morale, which can lead to a vicious cycle (Yadav, *et. al.* 2017). Adjunct to the above, Kabir (2017), opined that the effects of anger on public service delivery include: **Decreased Trust:** People lose faith in public institutions and grow disenchanted with the system when they see that their needs are not being met. People may become less cooperative with public officials as a result, creating a vicious cycle of mistrust.

Protests and Social Unrest: Stability and security can be threatened by unresolved anger that explodes into protests, demonstrations, and social unrest. People may take more extreme actions to vent their annoyance when they believe their opinions are not being heard.

Less Cooperation: People who are angry may be less willing to work with government representatives, which makes it harder to provide services efficiently. The relationship between the people and the government may break down as a result, which would make the issue worse.

6. Anger Management in the Public Sector in Nigeria

Anger is a natural emotion that comes from frustration, wrongdoing, retaliation, self-defense, religion, and society. People are exposed to rage in the workplace, but it is crucial to be able to express this anger without endangering or destroying the system. Anger is a normal part of life, particularly when someone thinks negatively all the time and becomes hostile, irritable, or impatient. It is expected of salary earners or non-career employees to direct their anger toward issues impacting the company rather than individuals (Ilhan 2014). Lerner (2014) demonstrated how to control anger in the public sector by doing the following:

Relaxation: Reducing the negative effects and enhancing the good response are the cornerstones of anger management. Regardless of the chores that still need to be done, relaxation is characterized by less thinking or a sense of freedom. It is impossible for a relaxed man to be angry at the same moment. Anger makes the heart race, which puts the bearer at risk for issues at work and in their health. Regularly angry officers can deal with the fallout by relaxing, which helps to ease everyday stress. Relaxation can take the shape of rest, holidays, breaks, and leave, and it helps employees live longer.

Humour: Humour is a representation of things that bring people joy. It entails coming up with things like laughing, listening to music and news, talking with friends, and interacting with village chiefs who are knowledgeable about proverbs. Being furious while laughing is equally challenging. Anger management is possible for those with humour skills, such as comedy, storytelling, and a humorous demeanour. The ability to bring humour into the workplace may lessen the weight of irritation or anger. Actions pertaining to humour are required to raise people's standard of living. In other nations, such as America, Britain, Germany, and Canada, humour is a part of everyday

life and is not considered hate speech or prohibited by law.

Mind Control: Managing angry thoughts in certain situations is another way to fight anger. It necessitates understanding how the body reacts, being aware of the signs of anger, and analyzing the data supporting one's own beliefs. Look for other approaches to resolving a certain issue or dispute. Indeed, more constructive options could take the place of unacceptable behaviors brought on by anger. Effective communication and attentive listening to prevent information distortion are two of these options. Training initiatives could do this.

Identify the Problem: Anger management is designed to address issues that impact employees. The ability of a management to pinpoint the true issue with a certain endeavor requires a thorough process that is fraught with perplexity over a plethora of possible solutions. Unless there is a thorough study and an effective choice that arises from understanding of the sources of the problem or anger, the manager's perception of the problem may not always be the one that is harming the firm. Since undiscovered problems result in rage, workplace conflict, resource waste, low productivity, and job discontent, an identified problem seems to be half solved. Due to their inability to recognize the actual issues impeding their operations, the majority of managers and leaders made poor choices. For example, if one of the causes of anger among police public servants are identified as poor conditions of service, government should provide solution to address the problem.

7. Conclusions and Recommendations

The intricate connection between anger and public sector service delivery has been investigated in this exploratory study. This research emphasizes the need for a more nuanced knowledge of the elements that contribute to citizen dissatisfaction and anger by examining the dynamics of citizen anger and its effects on service delivery. According to the findings, anger is a major problem in the public sector that impacts not just the general public but also public employees and the standard of service delivery as a whole. The study therefore recommends:

Enhance Communication: To control public expectations and lessen anger, public service providers should place a high priority on empathic, transparent, and clear communication.

Improve Service Quality: Public services should concentrate on providing excellent services that satisfy the demands and expectations of citizens while lowering annoyance and anger.

Promote Trust: Public service providers should place a high priority on fostering citizen trust by providing prompt and accountable services, which will lessen resentment and promote cooperation.

Offer Emotional Support: In order to lessen stress and anger, public service providers should acknowledge the emotional component of service delivery and offer residents emotional support.

Educate Public Employees: To enhance service delivery, public employees should be trained in effective communication, empathy, and handling angry citizens.

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Aburi Accord and the Narrative of a New Nigeria

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Abstract. The failure of the Federal Military Government of Nigeria (FMG) to implement the resolutions of the January 1967 Peace Agreement in Aburi, Ghana, which favoured a loose confederation where regional governments were made to command authority over their regions, and currently enjoys consensus in some quarters as the only genuine opportunity to reborn Nigeria of the old and save it from its numerous problems, has reinforced ethnic and religious tension in the country. The disagreement for restructuring, constitutional review and resource management, and separatist movement in South-East region are echoes of the failure of the FMG to implement the Peace Agreement at Aburi. This becomes the starting point of this study, which examined what the Aburi Declaration stands for, and the truth behind the assumption that it may have ushered in a new Nigeria where national cohesion thrives. To source for relevant materials used in this study, historical research design was chosen and secondary sources like textbooks, peer-reviewed journal articles, and internet sources were employed. Conflict Management theory was chosen as the study's theoretical framework to analyse how the Aburi Peace Agreement was poorly managed by the FMG. Faced with these realities, this study suggests among others that there should be total implementation of the provisions of the Aburi Declaration and others similar to it, such as the Ad-Hoc Constitutional Conference of September-October 1966, National Reconciliation Commission (1967-1970).

Keywords: Aburi Accord, Aburi Declaration, Narrative, A New Nigeria, Nigerianism.

1. Introduction

The realization of self-rule in October 1960 after a long period of British control may have been the time

for honest attainment of national cohesion that was under threat during the colonial rule, which instituted ethnic and religious division among the people of Nigeria. Prior to the fusion of the protectorates of North and South in 1914 by Lord Lugard, the indigenous tribes enjoyed their diversities in culture, linguistics, and economic and political life. Conversely, this freedom was taken away by the forced merger which happened without consultation with the people of the protectorates whether it was convenient or not to co-exist as a united entity, now called Nigeria. Before the January and July 1960 military coup and counter coup, Nigeria's political space was relatively smooth, though, with minor itches related to ethnic and religious tension in some areas.

The founding fathers while consenting to self-rule in the 1940s and 50s dreamt about 'one Nigeria, a united Nigeria' that was later achieved through formation of political parties and coordinated national movements with true-sense of Nigerianism. Regrettably, the failure of government and some powerful individuals and the coup plotters to sustain the faith in the Nigeria's dream, changed the country's narrative to what it has become today. The behaviours of these privileged few became the primary reason for the Aburi Meeting held in Ghana in 1967. The breakdown in trust following the expectations that came with the Aburi Peace Agreement was the prime force behind Odumegwu Ojukwu declaration of the Republic of Biafra as a sovereign state on 30th May 1967, leading to the civil war that lasted from 1967 to 1970. As Ighodalo (2025) puts it:

Though there are a number of peace moves to avert the Nigerian civil war, including the efforts made by some prominent monarchs (Obas) from the Western region, and efforts of the government under the National Conciliation Committee and Organisation of African Unity (OAU), now African Union (AU) and others,

but in all these efforts, the Aburi Peace Agreement stands out because of its genuine posture and resolutions (Ighodalo, 2025:883).

It is on this basis that most previous writers, scholars, and analysts advanced the resolutions reached at the end of the meeting in Ghana as the only alternative effort that perhaps averted the civil war and national issues after the war, majority of which stocked with the country to date. Likewise, much have not been said concerning how Nigeria's contemporary national concerns like the separatist movement in South-East and South-West expanses, militancy in the Niger Delta, and agitations for resource management and true-federalism, the whole time, may have been resolved through implementation of the Aburi decisions. This study therefore interrogates the need for implementation of the recommendations of Aburi meeting and the novel narrative of a new Nigerian State. The fact remains that the Republican Constitution of 1963 that replaced the Independence Constitution of 1960 failed to address the concerns of the minority groups and their desires for self-rule. Three years after attainment of self-rule, the desires of the minority tribes generated intense tension that later encouraged the government to create Mid-Western region in 1963 (Ighodalo, 2025).

While the agitation for self-rule was successful in Western region following the creation of a new region of the Mid-West, same was not the issue in Northern region in which the agitators were imprisoned. The tribal and religious awareness that was created by the British colonial power and the 1914 fusion of the protectorates of the north and south continued to threaten post-independence concept of nation-building. Along the line, the Western region was engulfed with political crisis that led to the suspension of the regional government and parliament. The 1963 census dispute involving the regions inflating of figures to their respective advantages, resulting to bitterness and accusations and counter accusations among the regions created more problems in the country. The controversial election of 1964 and Western region election of 1965 marred by violence, and the January coup and July countercoup coordinated by northern soldiers became the leading factor of Nigeria's problems as they shattered the nation's already fragile national unity (Akinyetun, 2020; Ighodalo, 2025; Okoji, 2025).

The final stroke that led to the Nigeria's national unity dilemma is the total collapses of the Aburi Declaration that may have settled the critical issues caused by the military coup of 1966. It is on the basis of this assumption that Uwechue (2003) and PENGlobal

(2023) identified the difference in interpretation given to the Aburi Declaration by both the federal military government headed by Lt. Col. Yakubu Gowon and Eastern region delegates led by Col. Chukwuemeka Odumegwu Ojukwu, and promulgation of Decree No. 8 of March 1967, which in itself was described as a deliberate attempt to frustrate the loose confederation provision suggested at Aburi as the reason for the civil war in Nigeria. While Decree No. 8 was said to target the prevention of disintegration of Nigeria and a civil war that was already evident following the secession moves in Eastern Nigeria, it failed because it did not reflect all the terms agreed upon at the meeting. The leadership of the separatist Biafra movement perhaps saw this as a betrayal and breach of the resolutions reached at Aburi meeting. It was argued that the Decree contains clauses that still gave the FMG the power to impose emergency rule against any of the regions, including Eastern region. On the contrary, the head of the military government, Gen. Yakubu Gowon said that the Accord collapsed and failed to prevent the civil war because of Odumegwu Ojukwu's demand for regional military control (Jide, 2025).

Nevertheless, the fashionable theory being propagated by many about Nigeria concerning the implementation of Aburi agreement and other related national conferences held to resolve the nation's problems is a focus. Ironically, the prescribed best of all these constitutional reviews, which is the 'Aburi Accord' was never implemented and Nigeria is paying the price. Taking it from this point, this study argued that the Aburi Peace Agreement despite the challenges that held back its implementation by the military government, a new Nigeria may have been achievable in 1967. Face with this reality, this study examined what the Declaration stands for, and ascertains the truth behind the assumption that if implemented, it may perhaps usher in a new Nigeria where national cohesion will thrive and national development achievable.

2. Method of Study

This study adopted the historical research design as the methodological framework. This is because historical design is the most appropriate design in the analysis of a study of this nature. Research design can be defined as the setup of the conditions under which data are collected and analysed in a manner that helps to combine the relevance to the purpose of the research. Research design is a statement of the conceptual structure in which a research is undertaken. Research design plays the role of ensuring that maximum amount of time is put into the gathering of relevant evidence or data (Kothari, 2009; Kothari & Garg,

2019). Historical components can assist researchers in exploration current and previous events, mostly based on secondary data sources like textbooks, peer-reviewed journal articles, internet sources, etc. Greenwood (2012) noted that information about events in the past can inform ‘what occurred’ and ‘why it occurred’, and influences modern circumstances. The applicability of qualitative research method to this study is vital since it can provide a helping hand in the following areas: obtaining crucial data on available literature, and help the researchers in data collection.

Yin (2013) identified three aspects in qualitative research method: investigation of contemporary phenomenon, and use of multiple sources of evidence. It can be approached in exploratory, descriptive and explanatory approaches. Therefore; the data sources that were used to get the materials in this study are strictly limited to secondary literature like peer-reviewed journal articles, textbooks, newspapers, internet materials, and others. These materials were selected with regard to academic plausibility and suitability that they have with the national challenges in Nigeria, link with the failure of the military government to implement the recommendations reached at Aburi Peace Agreement in 1967, and the narrative of a new Nigeria. Cross-referencing sources, triangulation of historical evidence and verification of factual claims with other independent records were used to critically appraise every source. The qualitative method was taken to be the most suitable as it enables the researchers to conduct a subtle assessment of the Aburi Declaration and its relevance in revolving Nigeria’s contemporary concerns.

3. Theoretical Discussion

Conflict Management theory is adopted in this study. While the early ideas of this theory date back to Mary Parker Follett in the 1920s, modern conflict management theory dominated by other prominent scholars like Kenneth Thomas and Ralph Killmann in the 1970s emerged. There is no institution or organisation that is immune of crisis. This reality makes conflict management a crucial aspect of many organisations or institutions. Understanding and applying conflict management principles is to effectively manage conflict situations within an organisation, or a nation-state. Negotiation, mediation and arbitration can be used to manage or resolve conflict but preventive measure stands out as the best avenue of managing it. Effective conflict management practices can significantly benefit parties in conflict. Conflict management theory is a fascinating one since it focuses on identifying and resolving disputes constructively, treating conflict as a functional part of

human interaction rather than a mere instrument for resolving conflicts. Traditionally, conflict is seen as dysfunctional and harmful but the modern view sees it as natural, inevitable, and potentially beneficial for fostering new ideas, especially in a complex organisation (Rahim, 2002).

Some political philosophers and sociologists are linked with Conflict theories, from the ideas of Plato in his tripartite soul, ‘The Republic’, to the ideas of Thomas Hobbes’ ideas in his ‘The Leviathan’, as well as Jean Bodin, Adam Smith, John Stuart Mill, Thomas Robert Malthus, George Simmel, and Karl Marx (Turner, 1975; Brown, 2017). Conflict arises when there is a clash of interest between two or more parties. How much power or influence the parties exercise in a given conflict situation determines its consequences. If the parties exercise equal levels of strength, the conflict may continue because both may decide to fight back to become more powerful. When there is a power gap, the most powerful party may impose its will on the submissive party. The submissive party in order to win will have to take drastic measures that will increase its power to reach the same level as the dominant party (Hanan, 2025). This was the situation between the FMG of Nigeria that exerted superior power against submissive Ojukwu led Biafra Republic side that exerted lesser power. Though engaging in the war for a couple of years resulted in loss of hundreds of lives and properties.

A servant leader is expected to prioritise other people’s concern and enable them perform their duties at a higher level of growth, which in the Nigerian context featured in agitation for regional management of political power and resources. Ability to manage such conflict situation effectively is one of the basic qualities of a transformative leader (Merril, 2015; Aij & Rapsaniotis, 2017). The success of any organisation including nation-states depends on the extent to which the leadership identify conflict areas, and have perfect understanding on how to manage or resolve them amicably before they get out of control. This was the reason Aburi Meeting was promptly organised, regrettably, poor management of the conflict situation resulted to the civil war and the position Nigeria now finds itself. Issues that affected the success of the meeting are conflict of interest between the parties involved, i.e., the FMG led by Yakubu Gowon and Biafra Republic agitators headed by Ojukwu. If personal or group interests were not shield but discarded, there may have not been any war and a new Nigeria may have been achievable at the end. Today, most of the recurring national problems, especially those related to the failure of both parties to accept and implement the resolution of the meeting may not have

been visible and hunting all other processes negotiated by the successive regimes to attain national unity in the country.

4. What Aburi Accord Means

Aburi Peace Accord also refers to as 'Aburi Declaration' held in Aburi located in Ghana's Eastern Region between 4th and 5th January 1967 and chaired by the former Ghana Military Head of State, General Joseph Arthur Ankrah. Aburi was chosen as the venue of the meeting between the FMG representatives and Nigeria's Eastern region representatives because of their safety. Aburi Meeting was conceived as the last option for peaceful resolution of the conflict, and avoidance of open arm confrontation between the FMG and the secessionist Biafra Republic. Prior to the Aburi Meeting, it was agreed that the use of force to settle the crisis will not be necessary. It was as well agreed that the head of the FMG should assume the title of Commander-in-Chief of the Armed Forces of Nigeria. At the end of the meeting, it was agreed that the resolutions should be embodied in the Decree to be

issued by Lagos, with the concurrence of the military governors (Mwakikagile, 2001).

Among the delegates present at the Aburi meeting are: the Chairman of Ghana National Liberation Council, Lt. General J. A. Ankrah (Chairman); Major Mobolaji Johnson, Governor of Lagos State; Lt. Col. Hassan Katsina, Governor of Northern region; Lt. Col. David Ejor, Governor of Mid-Western region; Commodore Joseph Edet Akinwale Wey, Vice President of Nigeria; Colonel Robert Adebayo, Governor of Western region; Alhaji Kam Selem, Mr. T. Omo Bare. Others present include N. Akpan, Secretary to the Military Governor of Eastern region; Alhaji Ali Akilu, Secretary to the Military Governor of Northern region; D. Lawani, Under Secretary Military Governor's Office, Mid-West; P. Odumosu, Secretary to the Military Governor, Western region; S. Akenzua, who later became the Oba of Benin- Erediauwa 1, Permanent Under-Secretary-Federal Cabinet Office (PENGlobal Associate Limited, 2023). The table below therefore presents the key decisions reached at the Aburi meeting:

Table 1: Decisions of the 1967 Aburi Accord

S/N	Category	Decisions/Resolutions/Recommendations
1.	Use of Forces	Renunciation of forces: All the parties involved agreed not to use force to settle the Nigerian crisis but resolve the issue through negotiation.
2.	Armed Forces to be reorganise.	Regionalisation of the Army through the establishment of area military commands, corresponding to existing regions, under the control of Area Commanders.
3.	Army Reorganisation.	Army Council: Establishment of a Military Headquarters with equal representation from the regions, to be headed by a Chief of Staff.
4.	Army Reorganisation.	Control of Troops: Regional governors were to have control over Area Commands, i.e., the Army Units, for internal security in their respective regions.
5.	Governance	Establishment of a Supreme Military Council (SMC): All decisions affecting the country require unanimous agreement from the Council.
6.	Governance.	Regional Constitutions: Any matter that needs to be resolved should be referred to military governors for comment and concurrence.
7.	Appointments.	SMC Approval: Appointments to senior police diplomatic, consular, and super-scale posts in federal civil/statutory corporations must be approved by the SMC.
8.	Constitutional	Repeal of Decrees: Regional members agreed that all decrees passed since January 15, 1966, which eroded regional powers should be repealed.
9.	Refugees	Rehabilitation Programme: A committee to look into the rehabilitation of displaced people, i.e., victims of 1966 massacres should be constituted.
10.	Finance	Revenue and Personnel: FMG was to continue with the payment of salaries to staff that fled to the East, and review of revenue sharing formula.
11.	Implementation.	Decree Formulation: Resolutions to be drafted into a decree by Lagos, subject to approval by all military governors.

Source: Nairametrics, 2011; Mwakikagile, 2001.

This table clearly reflects the major decisions reached at the end of the Aburi meeting. All of these were expected to be implemented by the ruling FMG as the critical issues in the country during the period. Perhaps, the story of the Aburi meeting was not just what was decided, but also about how these agreements were imprecisely interpreted, and never implemented as agreed, and how this in the end became undone (Mwakikagile, 2001; Nairametrics, 2011). Although, organised to mend fences and restore

the unity of Nigeria, sadly, it finally stands out as one of the most tragically misunderstood episodes in the country's political history. All its agreements were never formally codified into a single binding document by the FMG despite the fact that it carried the hopes of building a nation that was at the edge of collapse. With months, these hopes collapsed completely, giving way to a devastating civil war.

5. Aburi Peace Agreement and the Narrative of a New Nigeria

Expectations were high following the outcomes of the Aburi meeting. After its collapse, which gives way to distrust between Biafra leaders and the federal government side, and the civil war of 1967, several narratives were conceived. Most Nigerians believed that implementation of the resolutions may have mended and restored peace and national unity in the country. Others believed a combination of implementation of Aburi recommendations and others similar to it, such as the Ad Hoc Constitutional Conference of September-October 1966; National Reconciliation Commission of 1967-1970; 1990 National Conference; 1994-1995 Constitutional Conference; Yusuf Mamman Committee 2000; Oputa Panel of 2001; National Political Reform Conference of 2005; and 2014 National Conference, may have restored national unity and trust between the military government and the Eastern region, and among the diverse ethnic nationalities that constitute the nation-state, as well restore the notion of true-Nigerianism.

This was the basis for a general consensus that the supposed implementation of the provisions of the Ghana Peace Agreement, which favoured a loose confederation where the regional governments were made to have direct control over their regions, security and resources may have been the solution to all the contemporary national concerns in Nigeria. Jide (2025) advanced two conflicting reasons for the collapse of the Aburi Declaration to prevent the civil war; first, he said, was the enactment of Decree No. 8 by the FMG, and lastly, he said the collapsed was because of Ojukwu's demand for regional military control which Yakubu Gowon never accepted. Ojukwu wanted total control of government affairs in his region but the federal government of Nigeria never saw the Aburi meeting as a forum for constitutional restructuring or military devolution. Ojukwu's intent on the other hand was different, reason he declined to attend the meeting held in Benin by all the regional governors and federal military government representatives to converse the path forward after the Aburi meeting (Jide, 2025).

On 'Aburi we stand maxim' in recent times, means that the Accord has received more consideration and acceptance as a part of the laid down solutions to the Nigeria's recurring problems. Supporters of this theory argued that since it provided for regional autonomy, which was consistently repeating itself in the country's frontline political debate, Gowon should have granted freedom to the regions to manage their resources, allowing for a new Nigeria and reduce the fear of a central power dominance. Furthermore, it was argued that it may have prevented the civil war and established a solid foundation for a balanced and peaceful federal system, mitigating recurring national issues of ethnic dominance, weak national unity and the struggle for a grab of the national cake. As Izu and Obriki (2019) rightly stated:

It may be a case of being economic not to admit the truth that Aburi and Abuja Accords offered Nigeria the rare opportunity to rediscover, reconstruct, and reconstitute its political, social and economic fronts, and restore trust among its component units and national unity (Izu & Obiriki, 2019:222).

The Abuja Accord which was also a peace agreement, though, signed by Nigerian presidential candidates, notably Goodluck Jonathan and Muhammadu Buhari on 14 January 2015 to prevent election violence, enforce peaceful campaigning, and ensure acceptance of results alongside the Aburi Accord and similar conventions, may have ended the nation's numerous problems, usher in new Nigeria, and reinforce commitment to peace, security and national unity. With the present level of violence unleashed on defenceless citizens, especially on the Middle Belt Christians, and south and west people by Hausa/Fulani nihilists, the situation closely resembles the one that existed before the Biafran war; implementation of the Aburi Accord becomes an option to secure the nation existence and unity. As long as the federal government has no answer for Boko Haram, ISWAP, or the daily killings by Fulani marauders in Benue, Nassarawa, Plateau and Kaduna States, and kidnapping for ransoms all over the country, Aburi Accord can again help Nigeria (Jaro, 2011).

Table 2: Areas of Transformations of Nigeria

S/N	Policy Area	Pre-Aburi Scenario (Centralised)	Post-Aburi Implementation (Proposed "New Nigeria")
1.	Structure of Government.	Unitary System (Decree 34), with immense power concentrated in Lagos.	Loose Confederation.
2.	Regional Power.	Weak regions, central control.	Significant autonomy/control over regions.
3.	Military structure.	Unified command.	Unanimous government of all governors needed.

4.	Decision making.	Supreme Commander	Regional "Area Commands" for security.
5.	Governance	Unilateral centralization (Decrees)	Peaceful settlement to avoid civil war.
6.	Stability/War.	High tension/impending conflict.	Peaceful settlement to avoid civil war.

Source: (Nairametrics, 2011; Ayomide, 2021).

This table summarizes the areas in which the Aburi peace agreement may have created a new Nigeria. The government structure prior to the meeting was a unitary system with so much power vested at the central and governed by military decree. With the implementation of the decisions of the meeting, a new Nigeria may have emerge with a loose confederation in which the regions may have enjoyed significant autonomy, and have direct control over their regions, security and resources. A unified or unanimous government of all governors may have foster national unity because regional governors would have been involved in decision-making at the centre under the new military structure. The recent passage of 'State Police Bill', empowering state governors to appoint Commissioner of Police in their respective states by the National Assembly (NASS) under President Bola Ahmed Tinubu led administration (Adebayo, 2026; BBC News Pidgin, 2026), means that the central government is adopting a more tactical approach to end insecurity which is one the most critical issues in the country. It has been described nationwide as a right step in the right direction, resembling compliance to a section of the Aburi Accord.

6. Conclusion

The Nigerian civil war has ended but the matters that are associated with it are yet to be properly addressed by government. These matters play huge role in escalating the problems that are threatening national unity. However, restoring national unity in Nigeria, 59 years after the failed Aburi Accord requires addressing the same issues of trust, equity and power sharing, which led to the civil war and complicate the problems of the country since 1967. Giving the current circumstances, the country is at risk of moving from an underdeveloped state to a failed state, a scenario that must be avoided by the current leadership through adherence to the resolutions made at the Aburi meeting. Virtually everything about Aburi is relevant till today. It remains the best debate in history and for a new Nigeria to be built. Unfortunately, its recommendations are jettisoned by the military government headed by Gen. Gowon long before they were conceived.

Recommendations

A new Nigeria devoid of the crises of ethno-religious conflict and persistent calls for restructuring, resource

control, financial autonomy of states-regionalism, secession, and state and local government creation, is achievable if the following suggestions are giving consideration by government:

The federal government should adhere to the provisions of the Aburi Declaration of 1967, and others similar to it, such as the Ad-hoc Constitutional Conference of September - October 1966; National Reconciliation Commission (1967-1970), etc., with sincerity of purpose. This will not only rebuild trust among the ethnic and religious groups, but will also restore the faith of the people of the South-East region in one Nigeria.

Structural reform or true-federalism should be favoured against the highly centralised unitary system or quasi-federal structure, allowing states to manage their own resources and pay taxes to the federal government, which may reduce the conflict over resource control and debate for restructuring.

There should also be genuine or fairness in citizenship irrespective of tribe, region, social class, level of education, and regional affiliation or state of origin.

There should be reorganisation of the key security structures in line with Aburi proposal for a decentralised military or police structure that can ensure local safety, preventing the fear that state security will be used against a particular region, as was witnessed in recent past against the Biafra agitators, the Indigenous People of Biafra (IPOB) in South-East region and in the Niger Delta agitators.

A national economic and social integration policy should be prioritised by the federal government. It should focus on reducing regional inequalities, providing equal job opportunity, and improved infrastructure, especially in the marginalized areas. This will not only foster a sense of belonging but return the spiritual of one Nigeria.

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Social Media Communication and Public Trust in Government: Evidence from Residents of Edo State's Selected Local Government Areas

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Abstract. As digital communication has grown, public trust in government institutions has decreased and it is unclear how the quality of social media communication affects citizens' trust at the subnational level. This paper therefore compared the effect of social media communication on the trust of government by the citizens of six Local Government Areas (LGA) of Edo State, Nigeria (Oredo, Ovia North-East, Egor, Ikpoba-Okha, Esan West, and Etsako West) in the period 2018 to 2026. Data collection was conducted using a quantitative cross sectional survey design with 406 respondents who were filled out on the Social Media Communication and Public Trust Questionnaire (SMCPTQ) and processed using descriptive statistics and multiple regression and Pearson correlation analysis. The results indicated that the credibility, transparency and timeliness of government communication had a significant influence on public trust, with credibility having the strongest impact, accounting for 54.9% of the variance. The effect of misinformation and political propaganda on trust was found to be negative and significant, and information verification behaviour was found to be positive and significant, with both accounting for 48.2% of the variance. The relationship between citizen's perception of government accountability and responsiveness was moderately and positively correlated with citizen engagement in government social media platforms. The results highlight the importance of trust in institutions, created through credible and transparent digital communication, which is reinforced by interactive dialogue, whereas misinformation erodes it. The study suggests that the government of Edo State focus on credible and timely communication, setting of digital fact-checking mechanisms, and sustaining citizens' engagement to bolster their trust.

Keywords: Social media communication, public trust, government accountability, misinformation, citizen engagement, Edo State.

1. Introduction

There are very few resources of greater importance to a government than the trust of its citizens. Trust reduces the cost of governing, because trusted institutions are easier to collect taxes, can get people to obey without the threat of force and sustain crises without losing legitimacy (Levi & Stoker, 2000). Citizens seldom see governance; they experience it through what they receive, and therefore the communication of government is a part of trust not just its consequence. Made measurable, the OECD (2022) states that the key building blocks of institutional trust are responsiveness, reliability, integrity, openness and fairness – all of which are achieved at least in part through communication.

The rules of that communication have changed with the advent of digital platforms. Once the message went only one way through press statements, now it goes back and forth around Facebook, X, WhatsApp and Instagram, and citizens reply in real time (Mergel, 2013) and early supporters believed that this offered an inexpensive way to achieve transparency, and anti-corruption (Bertot, Jaeger & Grimes, 2010). The evidence has not been as neatly organised. However, in some contexts, citizens express greater trust in government-sponsored websites and social media accounts, as does transparency (Song & Lee, 2016), and as engagement via official platforms increases, so does institution-based trust, outside Western democracies as well (Warren, Sulaiman & Jaafar, 2014). Despite this, experimental research reveals that the trust dividend of transparency is small and culture-specific, and can even be negative (Grimmelikhuijsen,

Porumbescu, Hong & Im, 2013; Grimmelikhuijsen & Meijer, 2014). In short, context determines.

Nigeria provides a challenging environment. By the end of 2025, there were approximately 109 million internet users (45.5% of the population), 47.8 million active social media users (Kemp, 2026), and the National Digital Economy Policy and Strategy 2020–2030 (Federal Ministry of Communications and Digital Economy, 2019) officially commits the government to citizen engagement through the internet. The attitude to trust has gone in the opposite direction. Afrobarometer surveys reveal a ten-year decline in confidence in African public institutions (Adaba & Boio, 2024), and only a quarter of Nigerians had a favourable opinion of the electoral commission before the 2023 elections, which was down from 35 in 2017 (Afrobarometer, 2023). Some of the slide can be understood from the recent digital history. The blackouts of the #EndSARS protests by official accounts were found wanting by citizen and diaspora groups, who were more apt at credibly reporting of the Lekki shooting (Dambo, Ersoy, Auwal, Olorunsola & Saydam, 2022); WhatsApp was an industrial medium for electoral propaganda (Cheeseman, Fisher, Hassan & Hitchen, 2020); and a seven-month suspension of Twitter, read to many citizens as an act of censorship (Access Now, 2022).

The Nigerian record is missing subnational evidence. There is a local level of trust, at the council office and the state ministry, but the vast majority of findings available are aggregated on the national level or on the level of Lagos and Abuja. Edo State provides instructive corrective. It held off-cycle governorship elections in 2020 and 2024 which were as competitive as at polling units (Independent National Electoral Commission, 2024), and its 18 local government areas range from the densely connected metropolis of Benin City to the rural areas where access is lacking (National Bureau of Statistics, 2022). This study therefore looks at the relationship between social media communication and trust in government of residents (18 years and above) in the six selected local government areas in Edo State from 2018 to 2026.

1.1 Statement of the Problems

The Nigerian governments have never communicated so much, and been believed so little. At the same time, public institutions have seen a decline in their confidence over the same period, even though they have social media accounts that are active (Adaba & Boio, 2024; Afrobarometer, 2023). In the absence of official communication, building confidence was straightforward, and with the increasing visibility of

government in the digital sphere since 2018, there should be an increase in confidence, and there isn't. Existing work on Nigeria has focused on episodes of communication such as campaigns, protest, even platform bans, but not on the day-to-day relationship that citizens have with the government, to which they are bound by trust (Cheeseman et al., 2020; Dambo et al., 2022). The difference between 3 and 4 is the make or break. Often studies in Nigeria have failed to break down communication quality into the three facets of credibility, transparency and timeliness that have been found to have the trust effect in international studies (Grimmelikhuijsen & Meijer, 2014; Porumbescu, 2016).

This means that the policymaker is unable to determine which of the three aspects of communication quality should be focused on to gain the benefits of the trust effect. Misinformation is documented to be high and detrimental to media trust in Nigeria (Apuke & Omar, 2021; Wasserman & Madrid-Morales, 2019), and it is yet to be documented how it affects trust in government at state and local level. Whether citizen participation on official platforms means that there is perceived accountability, the very mechanism on which the digital governance promise rests, has not yet been tested for any subnational Nigerian population. Ministries and Councils in Edo State then spend money on digital communication but without any evidence that they benefit from it, and at the same time the less connected members of the population face the risk of being cut out of the conversation between the state and the citizen. This study provides that evidence to six of the State's local government areas.

1.2 Objectives of the Study

The general objective of the study is to investigate the impact of social media communication on public confidence in the government of Edo State, Nigeria. In particular the study aims to:

- Assess the impact of residents' trust in government institutions on the basis of the credibility, transparency and timely nature of government's communication via social media;
- Evaluate the impact of misinformation, fake news and political propaganda in residents' trust in government; and
- Investigate how the citizen's interaction with the government's social media platforms relates to their sense of citizen responsibility and responsiveness of government.

1.3 Research Questions

In this study, the following research questions are raised:

- How much do residents' trusts in government institutions depend on the credibility, transparency and timeliness of government communication using social media?
- How does the occurrence of misinformation, fake news and political propaganda affect the public trust in the government?
- What is the connection between citizens' engagement on government social media and residents' views on government accountability and responsiveness?

1.4 Research Hypotheses

The following null hypotheses will be tested at 5% level of significance:

Research hypothesis 1 (RH1): The credibility, transparency and timeliness of government social media communication do not significantly affect residents' trust in government institutions.

The hypothesis is that misinformation, fake news and political propaganda affect residents' trust in the government minimally.

Citizen engagement on government social media sites does not significantly relate to residents' perception of government accountability and responsiveness.

2. Literature Review

2.1 Government Social Media Communication: Conceptual Review

Government social media communication refers to the implementation of interactive digital communication tools by public institutions to disseminate information, solicit opinions and communicate with citizens. Mergel (2013) identifies two types of strategies: push – broadcasting and pull, by approaching citizens with an invitation to become part of official communications, and networking strategies – two-way exchange. Most agencies do not include anything beyond the first. The difference is critical as the characteristics of communication that are relevant to the trust are not in quantity but in quality. The first attribute is credibility, because if people don't believe what you're telling them, they won't accept it. Trustworthiness judgments are only enhanced by transparency up to a certain point, when it concerns decisions and performance of politicians and

transparency to citizens with little prior trust is more beneficial than transparency from those with strong prior distrust (Grimmelikhuijsen et al., 2013; Grimmelikhuijsen & Meijer, 2014). In a “rumour before correction” media sphere, timeliness has stood on its own as a factor in social media's success over traditional websites (Porumbescu 2016).

Trust in government is defined as citizens' confidence that public institutions are capable of functioning effectively, equitably and in the public interest, without close supervision (Levi & Stoker, 2000). Easton (1965) makes a distinction between specific support of incumbent authorities and diffuse support of the regime. Institutional accounts of origins see trust as an ongoing assessment of performance, not as a cultural inheritance; thus, the information environment in which performance comes into view is causally significant (Mishler & Rose, 2001). The OECD (2022) defines this as being measured by five drivers of institutional trust: responsiveness, reliability, integrity, openness and fairness, some of which can only be evaluated by citizens based on government's claims.

Citizen engagement transforms communication into accountability. Where they are allowed to ask questions of officials in public, responsiveness can be observed, and silence from officials is corrosive, leading to civic participation and institution-based trust (Warren et al., 2014) as a result of that interaction (Song & Lee, 2016). But the same structure, when it comes to falsehood, carries falsehood further than correction. False content spreads further and faster than true content (Vosoughi, Roy & Aral, 2018), and is found across a continuum of fake news ranging from fabrication, manipulation and propaganda (Tandoc, Lim & Ling, 2018). In Kenya, Nigeria, and South Africa, trust in the news media has eroded, leaving African audiences exposed to heavy doses of misinformation (Wasserman & Madrid-Morales, 2019). In Nigeria, sharing of fake news is related to altruistic motivations, and verification is difficult to achieve (Apuke & Omar, 2021); and fake news is found on encrypted WhatsApp networks, beyond the reach of public rebuttal (Cheeseman et al., 2020). The rest of the story is the unequal access. When Nigeria is compared to other African countries, it is evident that social media and online communication has overcome the older and rural, the less educated and poorer Nigerians whose trust in the government is often the lowest, which is why they are treated as moderators here.

2.2 Empirical Review

The first systematically evidence was the e-government websites. Welch, Hinnant and Moon (2005), found that the use of websites is correlated with “satisfaction,” and that satisfaction is correlated with “trust”. Tolbert and Mossberger (2006) determined that the use of e-government is most strongly associated with satisfaction and, in turn, with responsiveness and trust, at the local level. The mechanism was refined in social media studies: Song and Lee (2016) showed that perceived transparency was the mediator between citizens' use of government social media and trust in the United States, while Porumbescu (2016) found that social media was associated with more favourable perceptions of government among Seoul citizens than were denser official websites, and Warren et al. (2014) extended the pattern to Malaysia. Modesty, conditionality, and even absence of the effects of transparency on trust are suggested by experimental work (Grimmelikhuijsen et al., 2013; Grimmelikhuijsen & Meijer, 2014).

Disruption has been documented in Nigeria, however, by Nigerian scholarship. Foreign media and diaspora networks were trusted during the Lekki shooting; social media provided the organising infrastructure for #EndSARS; WhatsApp facilitated grassroots mobilisation and industrial-scale disinformation during the 2019 elections; and Apuke and Omar (2021) developed a model for individual predictors of fake news sharing. No measure of the perceived quality of routine government communication and trust in government at subnational level are accounted for in this work.

2.3 Gap in the Literature

Combined, the literatures reveal the gap that this study addresses. International research provides us with attribute-level models of the communication–trust relationship, however, these studies are mostly conducted in the North American and European/East Asian contexts, while Nigerian research provides rich accounts of digital contention, but little measurement of trust as a product of the communication that takes place every day in the Nigerian context, most directly with local government. Those established questions of the quality of communication, influence of misinformation, and citizen engagement are taken into that untested setting in this study using a probability-based survey of six local government areas in Edo State.

2.4 Theoretical Framework

The study is supported by three theories, each of which weighs a certain amount. Uses and gratifications theory of Katz, Blumler and Gurevitch (1973) views viewers as active and with an agenda, and choosing platforms to meet the goals of surveillance, connection and diversion. It establishes an audience-side base of the study: those who actively follow official accounts to keep track of government and those who come across government content only in forwarded WhatsApp broadcasts have different gratification structures, and it assumes that they process the official messages accordingly. It leaves it deliberately ambiguous as to the effects of exposure on attitudes, which are answered by the two theories to follow.

Media system dependency theory of Ball-Rokeach and DeFleur (1976), states that the more dependent audiences are on the media for information the more influence they will have and that dependence increases in times of conflict and uncertainty. The Nigerian information environment of 2018-2026, where the official channels of communication are barely accessible in the offline space and the traditional media or communication actors are all but trusted is a textbook example, and this is reflected in the 'alternative' space of platform networks where the #EndSARS protesters had to go to get their information (Dambo et al., 2022). The theory suggests testable hypotheses for the current study: communication quality and misinformation should both have an effect on trust judgements, and this effect should be greater for residents who are most reliant on social media to get government-information, suggesting systematic urban–rural and literacy-based implications.

The dependent variable is provided by institutional trust theory. Trust is a process that has been carried forward over the years from Easton (1965) to Mishler and Rose (2001) to the OECD (2022) framework of drivers, a process that takes place continuously, making the information input to that process causally central. From this perspective, communication in the public sphere by government is a performance signal in itself, and the degree of transparency as presented in the experimental literature on transparency are the limits of what can be achieved with communication (Grimmelikhuijsen & Meijer, 2014). The frameworks that were considered and discarded were the adoption related frameworks like the technology acceptance model, as this study was not about the technology adoption but about the formation of attitude among the existing users.

3. Research Methodology

The study design employed was quantitative cross sectional descriptive survey which was appropriate for the study as it was used to measure the perceptions of the participants at the moment and to examine the relationship between the variables (Creswell & Creswell, 2018). It was carried out in the six Local Government Areas (Oredo, Ovia North-East, Egor, Ikpoba-Okha, Esan West and Etsako West) which are located in the three senatorial districts, in addition to urban–rural diversity of Edo State. The study's target population included adults (18 years and older) that use or are exposed to social media. The sample size of 420 respondents was determined according to Yamane (1967) formula then was sampled by multistage sampling technique with stratification, purposive, random and systematic sampling.

The Social Media Communication and Public Trust Questionnaire (SMCPTQ) was used to gather data on demographic characteristics, social media use, perceived communication quality, misinformation

exposure, citizen engagement, accountability and public trust. The subjects were asked to respond on a four-point Likert Scale. Face and content validity were validated by three experts, and the Cronbach's alpha coefficients were obtained in a pilot study (with 40 residents of Uhumwonde LGA) was greater than the recommended 0.70 (Cronbach, 1951). In order to have good coverage of urban and rural communities' questionnaires were face-to-face administered for six weeks by trained research assistants. IBM SPSS Statistics Version 27 was used to analyse the data. Data were summarized using descriptive statistics (frequencies, percentages, means and standard deviations) and the hypotheses were tested using multiple regression and Pearson correlation at the 0.05 significance level. Ethical clearance was obtained prior to the collection of the data, consent was obtained from the participants and anonymity ensured, and handling of the data was in accordance with the Nigeria Data Protection Act (Federal Republic of Nigeria, 2023).

4. Results

Research Question One: How much do residents' trusts in government institutions depend on the credibility, transparency and timeliness of government communication using social media?

Table 4.3: Perceived Influence of Government Social Media Communication on Public Trust (N = 406)

Item	Mean	SD	Decision
Government information on official social media platforms is credible.	2.76	0.93	Accepted
Government communication is transparent.	2.71	0.92	Accepted
Government responds promptly to citizens on social media.	2.53	0.98	Accepted
Timely communication increases my confidence in government.	2.92	0.89	Accepted
Overall quality of government communication influences my trust in government.	2.93	0.91	Accepted
Grand Mean	2.77	0.93	Accepted

Interpretation: The results suggest that the overall government social media communication perceived by respondents was positive in improving public trust (Grand Mean = 2.77). The mean scores for Credibility, transparency and dissemination of information were all higher than the decision benchmark (2.50). The overall level of communication quality (M = 2.93), and timely communication (M = 2.92), were cited as the highest influence whereas the responsiveness of government to online enquiries was rated the lowest (M = 2.53), indicating that the interactive engagement is still not as strong as the information provision.

Test of Research Hypothesis One

RH₁: The credibility, transparency and timeliness of government social media communication do not significantly affect residents' trust in government institutions.

Table 4.4: Multiple Regression Analysis of Government Social Media Communication and Public Trust

Variable	β	T	p-value
Credibility	0.406	9.31	<0.001
Transparency	0.271	6.26	<0.001
Timeliness	0.225	5.32	<0.001
Model Statistics	R² = 0.549	F = 163.57	<0.001

Decision: The null hypothesis was rejected since the regression model was statistically significant (F = 163.57, p < 0.001). The three dimensions of communication accounted for 54.9% of the variance in public trust.

Interpretation: Credibility exerted the strongest positive influence on public trust, followed by transparency and timeliness. The findings suggest that residents are more likely to trust government institutions when official social media communication is perceived as credible, transparent and prompt.

Research Question Two: How does the occurrence of misinformation, fake news and political propaganda affect public trust in the government?

Table 4.4: Influence of Misinformation, Fake News and Political Propaganda on Public Trust (N = 406)

Item	Mean	SD	Decision
Fake news on social media reduces my trust in government.	3.14	0.84	Accepted
Political propaganda makes it difficult to distinguish factual government information.	3.07	0.83	Accepted
Conflicting information creates uncertainty about government performance.	3.12	0.81	Accepted
I verify government-related information before believing or sharing it.	2.94	0.84	Accepted
Frequent misinformation weakens public confidence in government institutions.	3.18	0.79	Accepted
Grand Mean	3.09	0.82	Accepted

Interpretation: The results indicate that respondents felt misinformation, fake news and political propaganda were important factors that impacted their trust in government (Grand Mean = 3.09). The highest agreement was for frequent misinformation weakens confidence in government (M = 3.18) closely followed by fake news reduces trust (M = 3.14). Overall, respondents agreed that misinformation on social media affects people's level of trust and confidence in public institutions.

Test of Research Hypothesis Two

RH₂: Misinformation, fake news and political propaganda affect residents' trust in government minimally.

Table 4.5: Regression Analysis of Misinformation and Public Trust

Variable	β	T	p-value
Misinformation/Fake News	-0.431	-9.84	<0.001
Political Propaganda	-0.287	-6.71	<0.001
Information Verification	0.169	3.98	<0.001
Model Statistics	$R^2 = 0.482$	$F = 124.83$	<0.001

Decision: The hypothesis that misinformation, fake news and political propaganda has only a small impact on public trust is rejected. The regression model was highly significant ($p < 0.001$, $F = 124.83$).

Interpretation: The results indicate that misinformation and political propaganda significantly reduce public trust in government. Misinformation exerted the strongest negative influence ($\beta = -0.431$), while political propaganda also had a substantial adverse effect ($\beta = -0.287$). Conversely, respondents who reported verifying information before accepting or sharing it exhibited relatively higher levels of trust in government ($\beta = 0.169$). Collectively, the predictors explained 48.2% of the variation in public trust.

Research Question Three: What is the connection between citizens' engagement on government social media and residents' views on government accountability and responsiveness?

Table 4.6: Citizen Engagement and Perception of Government Accountability (N = 406)

Item	Mean	SD	Decision
I regularly engage with government information on social media.	2.82	0.90	Accepted
Government responds to citizens' enquiries through social media.	2.58	0.96	Accepted
My interaction with government social media has improved my perception of accountability.	2.81	0.89	Accepted
Active engagement by government increases my confidence in its responsiveness.	2.92	0.87	Accepted
Citizen participation on social media promotes transparency and accountability.	2.99	0.84	Accepted
Grand Mean	2.82	0.89	Accepted

Interpretation: The findings indicate that there is a positive relationship between the citizens' involvement in government social media and their perceptions of accountability and responsiveness (Grand Mean = 2.82). The respondents' mean ratings indicated that increased interactions between government and citizens increases confidence in government responsiveness (M = 2.92) and transparency (M = 2.99). However, there is room for improvement as government responses to citizens' enquiries are relatively low (M = 2.58).

Test of Research Hypothesis Three

RH₃: Citizen Engagement on government social media sites does not significantly relate to residents' perception of government accountability and responsiveness.

Table 4.7: Correlation Analysis of Citizen Engagement and Government Accountability

Variables	r	p-value	Decision
Citizen Engagement × Government Accountability	0.668	<0.001	Significant
Citizen Engagement × Government Responsiveness	0.641	<0.001	Significant

Decision:

The null hypothesis is **rejected** because there is a statistically significant positive relationship between citizen engagement on government social media platforms and residents' perceptions of government accountability and responsiveness ($p < 0.001$).

Interpretation

The Pearson correlation analysis shows that there is a moderate positive correlation between citizen engagement and perceived government accountability ($r = 0.668$) and government responsiveness ($r = 0.641$). The findings indicate that the more active residents are with official government social media platforms, the more they see the government institutions as transparent, accountable and responsive to the concerns of the public. The results reflect the need for continuous two-way communication for the development of state–citizen relationship in the selected Local Government Areas of Edo State.

5. Discussion of Findings

The study revealed that the public trust in government institutions was significantly improved when government communicated through social media platforms in terms of credibility, transparency and timeliness. Credibility proved to be the most important factor in determining citizens' trust in government, with information that is accurate, consistent and timely being more likely to inspire trust. This discovery is consistent with the findings of Song and Lee (2016), Porumbescu (2016) and Grimmelikhuijsen and Meijer (2014) that transparent and responsive digital communication helps build institutional trust. It also conforms to the framework of the OECD (2022), which recognizes openness and responsiveness as key factors of public trust.

The results also showed that misinformation, fake news and political propaganda have a strong detrimental impact on trust in government. This is in line with findings of Vosoughi et al. (2018), Wasserman and Madrid-Morales (2019), and Apuke and Omar (2021) that misinformation travels quickly on digital platforms, and citizens' trust in the public institutions is undermined. Last, the positive association between perceptions of government accountability and responsiveness with citizen engagement corroborates Warrens et al. (2014) and Mergel (2013), who found interactive government communication fosters civic engagement and institutional legitimacy.

6. Conclusion

The study concludes that social media communication was found to have become an important factor in the public's trust of the Government in Edo State. When government information is credible, transparent, timely and interactive, trust is built, however misinformation and political propaganda will take trust away. Digital engagement is thus a key pillar of current public governance and democratic accountability.

7. Recommendations

Based on the findings, the study recommends that:

- Edo State government should disseminate official information on social media platforms using credible, transparent and timely information.
- Digital fact-checking units to be established by the Edo State Government to be able to immediately counter misinformation and fake news.
- Public institutions need to make prompt responses to citizens' enquiries and feedback on social media.
- Government to encourage digital and media literacy to assist citizens to recognize credible information.

- Government should improve citizen engagement by regular use of online means of engagement, consultation and feedback.

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Domestic Violence, Parenting Style and Socio-economic Status as Predictors of Deviant Behaviour among Secondary School Students in Abeokuta South, Ogun State, Nigeria

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Abstract. Deviant behaviour among secondary school students has become a growing source of concern in Nigeria, with consequences for adolescents' education, security and psychosocial wellbeing. This study examined the extent to which domestic violence, parenting style and socio-economic status jointly and independently predict deviant behaviour among secondary school students in Abeokuta South Local Government Area of Ogun State, Nigeria. A descriptive survey design of the correlational type was adopted. Two hundred students were drawn from four public secondary schools using stratified and simple random sampling. Data were collected with four validated instruments: the Deviant Behaviour Scale, the Domestic Violence Scale, the Parenting Style Scale and the Socio-economic Status Scale. Pearson Product Moment Correlation and multiple regression were used to analyse the data at the 0.05 level of significance. Each predictor correlated significantly with deviant behaviour: parenting style ($r = .55$), socio-economic status ($r = .36$) and domestic violence ($r = .29$). The three variables jointly predicted deviant behaviour ($R = .35$; $F = 3.42$; $p < .05$) and accounted for a significant proportion of its variance. Parenting style made the strongest independent contribution ($\beta = .30$), followed by domestic violence ($\beta = .17$) and socio-economic status ($\beta = .11$). The findings indicate that the family, and not the school alone, is central to the emergence of adolescent deviance. Home-school partnerships, parenting education and improvements in household socio-economic conditions are

recommended as strategies for curbing deviant behaviour among adolescents.

Keywords: Deviant behaviour; parenting style; domestic violence; socio-economic status; adolescents; secondary school students; Nigeria.

1. Introduction

Human behaviour is judged against the norms of the society in which it occurs. Conduct that a community approves in one setting may be censured in another, and the line between conformity and deviance shifts with time, place and culture (Macionis, 2007). Deviant behaviour, in this sense, refers to any conduct that departs from the established norms, values and expectations of a given social group. In Nigeria, reports of such conduct among young people have grown difficult to ignore. Truancy, theft, cultism, examination malpractice, substance abuse and sexual misconduct now feature regularly in accounts of secondary school life, and the trend has become a matter of concern for parents, teachers, counsellors and policymakers alike.

Adolescence is the developmental stage at which these behaviours most often surface. The term derives from the Latin *adolescere*, meaning to grow up, and describes the transition from childhood to maturity. It is marked by rapid physical and emotional change, heightened impulsivity and a tendency to test adult authority (Damron-Bell, 2011). Adolescents display

higher rates of recklessness, norm-breaking and antisocial conduct than either children or adults, which makes the period a critical window both for the emergence of deviant behaviour and for its prevention (Adewuyi, et al, 2025).

Several features of contemporary Nigerian society appear to sharpen the risk. Economic hardship has pushed many households into the low socio-economic bracket, thinning out the middle class and leaving some children to fend for their own welfare (Ajake, Etuk, & Omori, 2010). Family instability and violence within the home expose adolescents to models of aggression and to weakened parental supervision. The manner in which parents raise and discipline their children shapes the values those children carry into school and community. These three conditions, domestic violence, parenting style and household socio-economic status, form the focus of the present study.

1.1 Statement of the Problem

Evidence suggests that deviance among Nigerian secondary school students is neither rare nor trivial. Records from remand homes and the prison service indicate that a substantial share of secondary school students have been involved in behaviours ranging from truancy and theft to cult membership and the carrying of weapons such as knives and broken bottles to school. Media reports point to a rising rate of delinquency, expressed in truancy, stealing, thuggery, examination malpractice, drug abuse and cyber-crime. Left unchecked, such conduct raises the risk of school drop-out, feeds insecurity, depresses academic performance and can escalate, in later years, into more serious criminality that threatens the individual, the family and the wider community.

Although deviant behaviour has attracted research attention in Nigeria, much of that work has concentrated on adults and on urban populations. Comparatively little has examined secondary school students in Abeokuta, and fewer studies still have tested domestic violence, parenting style and socio-economic status together as predictors of deviance within a single design. The present study addresses that gap.

1.2 Purpose of the Study

The study examined the joint and independent contributions of domestic violence, parenting style and socio-economic status to deviant behaviour among secondary school students in Abeokuta South Local Government Area of Ogun State. Specifically, it sought to determine the relationship between each of

the three predictors and deviant behaviour; the joint contribution of the three predictors to deviant behaviour; and the relative contribution of each predictor to the prediction of deviant behaviour.

1.3 Research Questions

- What relationship exists between domestic violence, parenting style, socio-economic status and deviant behaviour among secondary school students in Abeokuta South?
- What is the joint contribution of domestic violence, parenting style and socio-economic status to the prediction of deviant behaviour?
- What is the relative contribution of each of the three predictors to the prediction of deviant behaviour?

2. Literature Review

2.1 The Concept of Deviant Behaviour

Deviance is the violation of cultural norms (Macionis, 2007); it is behaviour that fails to match the standards a society prescribes for its members and is therefore judged abnormal or antisocial (Dalhatu & Yunusa, 2013). What one society treats as deviant, another may tolerate or even reward, so definitions of deviance are inherently relative to context. Within a single society, too, conduct considered wrong at one time may later be accepted. For the purpose of this study, deviant behaviour is any act at variance with the accepted norms and values of a particular social setting, including sexual perversion, substance use, stealing, bullying, truancy, cultism and lying.

Scholars distinguish several forms of deviance. Physical deviance is the most visible and includes stealing, forgery, assault, fighting and destruction of property. Moral deviance departs from a society's moral values and covers truancy, drug abuse, alcoholism and sexual offences; it is the form most commonly reported among secondary school students. Personality deviance originates in the individual and appears as aggression, hostility, temper tantrums and withdrawal, harming both the student and those around them (Hanimoglu, 2018; Bello, 2022). These behaviours seldom arise in isolation. They cluster with family, individual, school and community risk factors, among which the quality of early care and of parent-child relationships is especially important (Ehondor, Idris, & Uye, 2024).

2.2 Parenting Style

Parenting style refers to the pattern of attitudes and practices that characterises parent-child interaction

across situations and creates the emotional climate in which children are raised (Darling & Steinberg, 1993). Baumrind's (1966) framework, later elaborated by Maccoby and Martin (1983), organises this pattern along two dimensions: demandingness, the extent to which parents set standards, supervise and require maturity; and responsiveness, the extent to which they are warm, attuned and supportive of the child's needs. Crossing the two dimensions yields four styles. Authoritarian parents are demanding but unresponsive, enforcing strict rules and obedience with little explanation. Authoritative parents are both demanding and responsive, combining clear standards with warmth and reasoned discipline, and are consistently linked to the most positive adolescent outcomes. Permissive parents are responsive but undemanding, while neglecting parents are neither. A further dimension, psychological control, distinguishes authoritarian from authoritative parenting: the former relies on guilt, shaming or withdrawal of love, whereas the latter favours open give-and-take (Baumrind, 2007).

2.3 Domestic Violence

Domestic violence is the intentional and persistent abuse of a family member in a way that causes pain, distress or injury (Igbokwe, Ukwuma, & Onugwu, 2013). It is a violation of basic human rights and takes many forms, including physical battering, sexual abuse of children, marital rape and harmful traditional practices such as forced and underage marriage (Aihie, 2009). Some scholars frame it specifically as male violence against women rooted in gender inequality, while broader definitions extend it to any physical, sexual, emotional, economic or psychological act, or threat, that isolates, frightens, coerces or injures another person (Adebayo, 2014). Across these definitions, the common thread is that domestic violence has damaging effects on everyone exposed to it, including the children who witness it.

2.4 Socio-economic Status

Socio-economic status describes an individual's or a family's position within a social hierarchy, based on access to wealth, prestige and power, and is typically measured through parental education, occupational prestige and family income (Mueller & Parcel, 1981). It is commonly grouped into high, middle and low levels. When applied to children, socio-economic status refers to that of the parents or household, and it conditions the resources, opportunities and quality of care available for a child's upbringing.

2.5 Theoretical Framework

The study draws on three complementary theories. Bandura's (1977) social learning theory holds that behaviour is learned by observing and imitating models in the environment. Adolescents are surrounded by influential models, including parents, peers, teachers and media figures, and are most likely to imitate those they perceive as similar to themselves and whose behaviour is reinforced. A home in which violence is modelled, or in which deviant conduct goes unpunished, therefore supplies both the behaviour and the reinforcement that make deviance more likely. Sutherland's differential association theory (Sutherland & Cressey, 1966) similarly argues that deviance is learned through interaction in intimate groups, so that a young person becomes deviant when exposure to definitions favourable to law-breaking outweighs exposure to definitions against it. Hirschi's (1969) social control theory adds the complementary insight that strong bonds to conventional agents, such as family and school, restrain deviance, while weakened bonds free the individual to drift toward it. Read together with a family-systems perspective, in which the family functions as an interconnected unit whose dysfunction is transmitted to its members, these theories locate the roots of adolescent deviance substantially within the home.

2.6 Empirical Review

Empirical studies converge on the family as a key correlate of youth deviance. Reeta and Singh (2020), reviewing the link between disrupted families and delinquency, found that children from single-parent and broken homes were consistently more involved in delinquent behaviour than children from stable, two-parent households, and attributed this to reduced supervision and weakened parental attachment. Ngale (2009) similarly found that delinquent children in a correctional sample in Cameroon came disproportionately from the lowest socio-economic stratum and from overcrowded homes in which parents held low-paid jobs. Working with in-school adolescents in Ibadan, Nigeria, Ehondor, Idris and Uye (2024) found that parenting style and social network jointly predicted deviant behaviour, with age and gender also contributing independently. Parenting and household conditions feature prominently in this literature. Egaga, Ataben and Ofie (2021) identified poor parenting practices, alongside socio-economic strain and family dysfunction, as leading predisposing factors in the development of deviant behaviour among Nigerian adolescents, and called for a greater role for psychologists and school counsellors in its management. On domestic violence

specifically, Akpunne and Akinawo (2017) found that exposure to domestic violence was associated with heightened psychological distress among institutionalised Nigerian adolescents. Children who witness violence between their parents, and those who are themselves abused or neglected, show elevated rates of mental health difficulty that is closely linked to later conduct and behavioural problems (Meltzer, Doos, Vostanis, Ford, & Goodman, 2009). This body of work motivates the present test of domestic violence, parenting style and socio-economic status as joint predictors of deviant behaviour.

3. Methodology

3.1 Research Design

The study adopted a descriptive survey design of the correlational type. The design was appropriate because it examines relationships between naturally occurring independent variables and a dependent variable without manipulating the former, whose manifestations had already occurred.

3.2 Population and Sample

The target population comprised all public secondary school students in Abeokuta South Local Government Area of Ogun State. A stratified sampling technique was used to group schools across the local council development areas of Abeokuta into strata in which male and female students were represented, and four schools were randomly selected. Simple random sampling was then used to select 200 willing students for the study.

4. Results

Of the 200 respondents, 94 (47.0%) were male and 106 (53.0%) were female. In terms of age, 95 (47.5%) were below 12 years, 72 (36.0%) were between 13 and 16 years, and 33 (16.5%) were 17 years or older.

4.1 Research Question One: What relationship exists between domestic violence, parenting style, socio-economic status and deviant behaviour?

Table 1: Descriptive Statistics and Inter-correlations among the Variables (N = 200)

Variable	Mean	SD	1	2	3	4
1. Deviant behaviour	48.22	11.29	1.00			
2. Domestic violence	34.32	6.46	.286**	1.00		
3. Parenting style	26.57	5.82	.545**	.086	1.00	
4. Socio-economic status	22.38	4.80	.361**	.049	.388**	1.00

** Correlation is significant at the 0.05 level (2-tailed).

Table 1 shows that each predictor correlated significantly and positively with deviant behaviour: parenting style produced the strongest correlation ($r = .55$, $p < .05$), followed by socio-economic status ($r = .36$, $p < .05$) and domestic

3.3 Instrumentation

Data were collected with a structured questionnaire in five sections. Section A gathered demographic information (gender, age, religion and class). Section B was the Deviant Behaviour Scale, a 10-item, four-point scale developed by Elizabeth (2000) with a reported reliability of .73, on which higher scores indicate greater deviance. Section C was the Domestic Violence Scale (Fox & Gad, 2012), a four-point scale measuring exposure to violence in the home. Section D was the Parenting Style Scale (Karl, 1999), a 15-item, four-point scale with a reported reliability of .63. Section E was the Socio-economic Status Scale (Salami, 2000), which scored parental occupation, education, residence and possessions to a maximum of 56 and classified family background as high or low, with a test-retest reliability of .73. A pilot study with 30 students outside the sample yielded an overall alpha of .74, indicating adequate construct validity.

3.4 Procedure and Data Analysis

An introductory letter was used to obtain the permission of school principals. Respondents were briefed on the purpose of the study and assured of confidentiality, and the questionnaire was administered in the selected schools over a two-week period. Demographic data were summarised with frequencies and percentages, while the three research questions were answered using Pearson Product Moment Correlation and multiple regression at the 0.05 level of significance.

violence ($r = .29, p < .05$). Parenting style and socio-economic status were also correlated with each other ($r = .39, p < .05$).

4.2 Research Question Two: What is the joint contribution of domestic violence, parenting style and socio-economic status to deviant behaviour?

Table 2: Summary of Multiple Regression of the Three Predictors on Deviant Behaviour

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1842.429	3	614.143	3.421	.018
Residual	35362.591	196	179.400		
Total	37205.020	199			

$R = .350$; $R^2 = .123$; $Adjusted\ R^2 = .110$; $Standard\ error = 12.213$; $p < .05$.

Table 2 shows that the three predictors jointly produced a multiple correlation of $R = .35$ with deviant behaviour, and the model was statistically significant, $F(3, 196) = 3.42, p < .05$. Taken together, domestic violence, parenting style and socio-economic status accounted for a significant proportion of the variance in deviant behaviour, with the remaining variance attributable to factors outside the scope of this study.

4.3 Research Question Three: What is the relative contribution of each predictor to deviant behaviour?

Table 3: Relative Contribution of the Predictors to Deviant Behaviour

Model	B	Std. Error	β	t	Sig.
Constant	36.548	6.894	—	4.345	< .05
Parenting style	0.629	0.171	.304	3.320	< .05
Domestic violence	4.248	2.176	.174	1.213	< .05
Socio-economic status	1.654	1.023	.106	2.115	< .05

Dependent variable: Deviant behaviour.

Table 3 shows that each predictor made a significant contribution to deviant behaviour. Parenting style made the strongest contribution ($\beta = .30, t = 3.32, p < .05$), followed by domestic violence ($\beta = .17, t = 1.21, p < .05$) and socio-economic status ($\beta = .11, t = 2.12, p < .05$).

5. Discussion

The first finding, that domestic violence, parenting style and socio-economic status each relate significantly to deviant behaviour, is consistent with a large body of African and international research. Reeta and Singh (2020) linked broken and single-parent homes to youth delinquency, and Ngale (2009) similarly tied delinquency to low socio-economic status and overcrowded households. The pattern supports Bandura's (1977) contention that adolescents learn conduct from the models around them: where the home supplies aggression, weak supervision or economic strain, deviance becomes more probable.

The second finding, that the three predictors jointly account for a significant share of the variance in deviant behaviour, echoes longitudinal evidence that children exposed to family adversity carry an elevated risk of antisocial and delinquent trajectories that can

persist well into adulthood (Murray & Farrington, 2005), and evidence that children who witness abuse or neglect show elevated rates of mental health and conduct difficulty (Meltzer, Doos, Vostanis, Ford, & Goodman, 2009). That a meaningful portion of the variance remained unexplained is expected; peer influence, media exposure, school climate and individual temperament also shape adolescent behaviour and lay outside the scope of this study.

The third finding, that parenting style makes the strongest independent contribution, is the study's most practically important result. It aligns with Egaga, Ataben and Ofie (2021), who identified poor parenting as a leading influence on the development of deviant behaviour among Nigerian adolescents, and with Ehondor, Idris and Uye (2024), who likewise found parenting style to be a stronger predictor of deviant behaviour than social or demographic background among in-school adolescents. Domestic violence followed parenting style in magnitude, consistent with evidence linking exposure to domestic violence with heightened psychological distress and behavioural difficulty among Nigerian adolescents (Akpunne & Akinnawo, 2017). Socio-economic status made the smallest contribution, which fits Mueller and Parcel's (1981) caution that socio-economic status is a

multidimensional construct not reducible to income alone, suggesting that how parents raise their children matters more than household resources by themselves. The home, in short, emerges as the decisive setting for the prevention of adolescent deviance.

6. Conclusion and Recommendations

This study examined domestic violence, parenting style and socio-economic status as predictors of deviant behaviour among secondary school students in Abeokuta South Local Government Area of Ogun State. The three variables were significantly related to deviant behaviour, both jointly and independently, and parenting style was the strongest predictor. The family, rather than the school alone, is therefore central to the emergence and the prevention of adolescent deviance, and programmes that engage parents in the lives of their children are needed to address it.

On the basis of these findings, the study makes the following recommendations. First, adolescents should be guided and trained to develop socially acceptable conduct, given the effects of deviance on their psychological health. Second, parents and guardians should be sensitised, through school counsellors and parent-teacher associations, to the influence of parenting on adolescent behaviour and to constructive, non-violent ways of guiding their children. Third, schools should provide an enabling environment that reinforces positive behaviour within and beyond the school. Fourth, home and school should collaborate closely to keep learners focused and well adjusted. Fifth, government should work to improve the socio-economic conditions of households so that parents can better provide for the proper upbringing of their children.

The study was limited by the reluctance of some school authorities to grant access and by the possibility that some students did not respond candidly. Future research should extend the design to other states and over a longer period, and should incorporate additional predictors of deviance, such as peer influence and school climate, that fell outside the present scope.

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Globalization and the Underdevelopment of Africa: A Critical Analysis

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Abstract. The intensification of global social, political, economic and cultural relationships has brought positive gains for some parts of the world, but this cannot be said of all countries and regions of the world. Many countries in the Global South have not had a fair share of the benefits of globalization due to the exploitative activities of the developed countries and their control over international organizations. These exploitative and hegemonic actions have resulted in the direct and indirect underdevelopment of African countries. The article therefore delves into the conceptual analysis of globalization, impact of the globalization process on the underdevelopment of Africa and recommendations on strategies to drastically reduce these negative impacts of globalization and benefit from the dividends the phenomenon has to offer African countries. Drawing on the Dependency Theory and adopting a critical literature synthesis, as the primary methodology, this paper makes the claim that an unfair international division of labor is maintained by the current global economic architecture. Because of this arrangement, African countries are positioned as both consumers of manufactured goods from the global "core" and constant suppliers of basic commodities. The study discovered that institutions like the IMF, World Bank, and WTO use policies to keep Africa weak, and that slavery, colonialism, and globalization generate inequality to impede African prosperity. Therefore, the report advises African leaders to navigate globalization by putting measures like investing in technical education, diversifying businesses, and encouraging import-substitution industrialization into practice.

Keywords: Globalization, Underdevelopment, Africa

1. Introduction

Globalization has grown to be the most extensive and dynamic trend in contemporary times, giving the world economy shared characteristics. Globalization is not a novel concept, both in Africa and globally. However, the meaning of the term depends on how one defines and describes globalization. For the continent, transcontinental ties and interactions are nothing new. Africa's history is distinguished by the involvement of external European and American parties. Beginning in the 15th century, African had extensive contact with the outside world, primarily Europe and America (Kasych and Vochozka, 2019).

As a result, Africa's history has experienced significant social, cultural, political, and economic change (Nadew, 2020). All facets of life—economic, cultural, environmental, and social—as well as interactions between governments and countries across the five continents are impacted by the multifaceted phenomenon of globalization. Increased financial and foreign direct investment flows, as well as an intensification of cross-border trade, are the hallmarks of the globalization phenomenon, which is fueled by fast deregulation and advancements in information technology (Daouas, 2001).

2. Globalization: Conceptual Analysis

The concept of globalization has a relatively long history that has generated enormous interest and debate among contemporary scholars. For them, the concept of globalization is not new, despite some scholars are of the opinion that globalization is categorized into three major epochs - 1870-1914, 1945-1980 and from 1980 till date. For these scholars, African has been in contact with other parts of the world and also had significant interactions within it. Interactions with the outside world particularly Europe

and America commenced way back in the 15th century and this interaction has significantly altered the course of African history- culturally, politically and economically (Osaghae and Haaga, 2016).

Different authors have used the concept of globalization in different ways. It has been used to refer to political and social strategies, a philosophy, and a market strategy. Nonetheless, academics generally agree that it guarantees the world's connectivity into an approachable and linked village, influencing conventional and domestic economics, ideologies, and events, thereby guaranteeing the closeness of economies, societies, and politics (Adesanya, 2022).

Although academics and the media have been using the term "globalization" a lot lately, it is not a completely new phenomenon. There are political, social, and economic definitions for the term "globalization." According to Awdel, Odel, and Saadi (2020), it can also be described as power in international economics, growth in global economics, broader intelligence, and higher scale and level of economy in respect to world boundaries.

3. The Concept of Underdevelopment.

According to Cinjel, Abubakar, and Orluchukwu (2020), underdevelopment refers to societies that are deemed to be economically poor, low in industrial production, low in technological development, low in purchasing power, politically unstable, prevalent poverty, disease, squalor, low per-capita income, short lifespans, and primarily agrarian economies. Underdevelopment is defined as the opposite of development. A comparative aspect and the relationship of exploitation—that is, the exploitation of one country by another—are the two main components/aspects of underdevelopment, according to Walter Rodney (Arabu, 2024).

According to the UNDP (2001), underdevelopment is the state in which a nation has low per capita income, high levels of poverty, low levels of education, and insufficient industrialization and resource utilization. It goes on to say that the government's failure to provide for the needs of its citizens and promote their welfare is a major factor in developing nations. States with limited economic growth, poor governance, widespread extreme poverty, poor health, and slow educational advancement are considered underdeveloped.

4. Globalization: Historical Analysis

Globalization, the process of nations becoming more integrated and dependent on one another in the political, social, cultural, and economic domains, emerged throughout a number of eras. Some scholars trace globalization back to the third century BCE, well before the European Age of Discovery and exploration of the New World, despite the fact that many scholars think it is a relatively new phenomenon (Frank, 1998). The earliest indications of modern globalization date back to the prehistoric era. Globalization was largely shaped by our forefathers' geographical expansion to every continent in the planet. The vast majority of people on the planet now lead settled lives thanks to the expansion of agriculture, which accelerated globalization (Steger, 2009).

The Islamic Empire established trade routes across the Indian and Mediterranean oceans during the Middle Ages. Later, these spread as far west as Muslim Spain and as far east as Indonesia. They and the Silk Road helped to the growth of globalization by connecting a significant portion of the then-known world. An important turning point in the evolution of globalization was the Age of Discovery, which began in the sixteenth century (Chukwuemeka, Okpe, and Adakwa, 2024).

5. Economic Globalization and Underdevelopment of African Economies.

Uzodigwe, Oguche, Akogwu, Arinze, and Ezech (2023) state that economic globalization is one of the three primary aspects of globalization that are frequently observed in both academic and international contexts. The extensive international flow of products, capital, services, technology, and information is referred to as economic globalization. It is the increasing interconnection and economic integration of national, regional, and indigenous economies worldwide as a result of increased cross-border trade in capital, technology, goods, and services. European expeditions motivated by imperial ambitions and resource exploitation marked the beginning of the penetration of western civilization and culture into Africa. African academics contend that this practice continued even after independence, influencing the course of the continent. Africa faces many issues in the twenty-first century, such as the legacy of colonialism, foreign aid, foreign direct investment (FDI), discussions about climate change, the Millennium Development Goals (MDGs), and cultural diplomacy as a new strategic tool (Andrew, 2015).

It is impossible to comprehend Africa's current situation without looking at its colonial background. Colonialism was essentially an exploitative endeavor in which European nations took wealth, resources, and cheap labor from Africa, creating the groundwork for structural underdevelopment. Africa's colonial past is intricately linked to its current state. Colonialism was fundamentally an exploitative endeavor to extract Africa's wealth rather than a civilizing mission. European powers destroyed pre-existing African systems and imposed artificial borders, frequently forcing hostile communities into single states and creating the conditions for protracted ethnic conflicts (Adams, 2025).

Africa's place in the world economy is significantly biased in favor of Western nations. African nations are kept at the bottom of the global value chain by unfair trade agreements that guarantee they will continue to export raw resources without adding value. African goods find it challenging to compete when Western nations use tariffs, quotas, and subsidies to safeguard their industries. This is having an impact on the development of African nations since it is evident that the majority of raw materials in the world today are sourced or originate from Africa. Despite making up a sizable portion of the raw material industry, Africa still has little to no control over trade values, so it is still unclear how this will lead to growth (Adams, 2025).

In terms of economic growth and development, African nations have benefited comparatively less from the advantages of globalization than other regions of the world. The majority of African nations failed to seize the opportunity presented by the dynamic growth momentum associated with globalization in the 1970s and 1980s because they had primarily adopted an inward-oriented development strategy in the early decades of the post-independence period. They faced modest growth and stagnation and were mainly marginalized rather than becoming increasingly integrated into the global economy. Consequently, poverty has become more prevalent and severe in the area. The number of impoverished people in Africa nearly doubled from 164 million in 1981 to 313 million in 2001, according to the US\$1 per day international poverty level. Although globalization has helped Africa's economy grow somewhat, it hasn't yet made it easier for the continent's nations to undergo the structural change necessary to speed economic development and poverty alleviation. Rather, globalization has done very little to alleviate poverty and has instead tended to increase intra-country inequality (Nissanke and Thorbecke, 2007).

6. Political Globalization and Underdevelopment in Africa

Political globalization, is the growth of state integration in the international political arena, both in terms of size and function. They claim that it is the growth of an international political system and its institutions, which oversee interregional trade. Political globalization is the growth of state integration in the international political arena, both in terms of size and function. They claim that it is the growth of an international political system and its institutions, which oversee interregional trade (Uzodigwe et al. (2023).

Over the years, researchers in Africa have been concerned about globalization. While some contend that it has greatly benefited the continent of Africa, others disagree, believing that it has caused more harm than good. Scholars from both rich and developing nations have debated the idea of globalization. While proponents argue in favour of globalization, opponents see it as an attempt at the re-colonization of the weaker economies by the stronger nations.

One may argue that Africa is a continent with a number of political inequalities. Political disputes between political parties or between ethnic groups are a constant occurrence in African nations (Onebunne, 2017).

According to Obasa (2020), neo-colonialists and imperialists from developed nations have shaped Africa's political structure. This is experienced by the countries of sub-Saharan Africa through financial aid and other forms of help. The neo-colonial state frequently receives international loans and aid with "strings" attached. The pursuit of policies in the neo-colonial state that benefit imperialists and the payment of greater interest on loans given to the neo-colonial nations for development objectives are two examples of these threads. Therefore, foreign aid and loans are revolving credits that are paid for by the neo-colonial master, go through the neo-colonial state, and then return to the neo-colonial master as higher profits (Obasa, 2020).

Africa has had to deal with a number of issues, including political instability, conflict, and weak institutions, which have further impeded growth and prolonged the cycle of poverty in many nations. Globalization has made these problems worse and presented Africa with both opportunities and difficulties. Globalization has made it possible for African nations to access international markets and draw in foreign investment, both of which can promote economic growth and development. However, it has

also increased competition, marginalized some African nations and widened the gap between the global north and south. From a political standpoint, globalization has also made problems in Africa worse by encouraging economic liberalization and deregulation, which have raised social unrest and inequality. Additionally, globalization has made it easier for terrorism and transnational crime to proliferate, endangering Africa's peace and progress (Jev, Wanan, Jacob, Yusuf, Bobuin, and Yongo, 2024).

Africa has fared much worse than other regions during the last 50 years of globalization. Africa now faces economic, political, social, cultural, and environmental issues as a result of globalization. The meddling of international players in African politics is one of the main challenges of globalization in Africa. The feeling of unity and communal life gave way to individuality as a result of economic globalization. Because politics cannot accomplish its objectives without the participation of the masses, this made African politics challenging. Africans' rights to autonomy and self-determination were taken away by globalization. However, this gave African politicians a puppet role in the continent's internal affairs.

This is due to the fact that if the politicians did not modify their policies and tactics to allow the entry of multinational firms, the source of foreign aid would cease. African governments' ability to protect national security and peace was curtailed by globalization. The dishonest organizations of international actors make the majority of the decisions that affect Africans' destiny (Nadew, 2020).

7. Cultural Globalization and Underdevelopment in Africa

Losing cultural and national identity is a primary risk of globalization, which frequently eradicates local traditions and can develop into a covert form of neo-colonization. For example, the United States exercises this influence through CNN and its dominance over the United Nations Organization to counter opposition. Additionally, individuals risk losing their unique identity to the anonymity of the global mass, resulting in inauthenticity and a lost sense of self (Adefarasin & Adefarasin, 2023).

In Africa, external cultural hegemony undermines autonomy, self-determination, and cultural diversity. Due to the arrival of video films and modern technologies, people are abandoning traditional practices like drama, carvings, and melodies (Belete, 2024).

Ultimately, cultural globalization spreads Western lifestyles as an old enemy in a new form, acting as an expression of colonialism and imperialism. In Nigeria, adoption of Western civilization has restricted African practices, leading to a general decline in morality and responsibility. Similarly, most South Africans have given up their African language, culture, and religion to emulate American rap artists (Daramola, 2020). Western media accelerates this decline by acting as a devil's advocate, constantly barraging African media with meticulously crafted content to spread Western culture—a phenomenon explained by cultural imperialism and acculturation theories (Daramola & Oyinade, 2015). Finally, globalization has commercialized African culture, exploiting traditional music and art for financial benefit. Packaging and selling these artifacts as exotic commodities without regard for cultural relevance has caused a severe decline in cultural values and authenticity (Ukhami, Lassana, & Kabir, 2024).

8. Globalization and Environmental Degradation in Africa

Economic globalization propels environmental deterioration in Africa by hastening resource extraction, industrial manufacturing, and pollution via heightened international commerce and multinational investments [Obiora, 2019; Akadiri et al., 2022]. This procedure amplifies energy usage and environmental impacts, whereas lenient ecological policies in emerging countries intensify deterioration and diminish living standards [Akadiri et al., 2022; Aladejare, 2025]. Moreover, worldwide resource demand leads to land displacement, adversely affecting African indigenous populations through climate-induced catastrophes and the disruption of their traditional, low-carbon economies [Forzong, 2025].

9. Theoretical Framework

Dependency theory, a school of thought that emerged in the mid-20th century, posits that the global economic system is structured to benefit a “core” of wealthy nations at the expense of a “periphery” of developing countries. Its central tenet, that underdevelopment is not a stage, but a condition created by the integration of peripheral nations into the global capitalist system on unequal terms, provides a powerful critique of modernization (Almakaty, 2025).

Dependency theory serves as a core analytical framework for this study, arguing that modern globalization perpetuates the underdevelopment of African nations by enforcing a system of economic exploitation and subordination. This perspective

suggests that current global integration mechanisms actively hinder local development, resulting in a persistent cycle of dependency rather than sustainable economic growth

The propounders of dependency theory are Paul Baran (1957), Andre Gunder Frank (1966), Theotonio dos Santos (1970), and others. They are of the opinion that dependency places primary responsibility for African poverty and underdevelopment on Western imperialist powers. It holds that these powers have impoverished Africa and the rest of the third world so that today poor countries are dependent on rich ones (Okechukwu and Arua, 2019).

10. Conclusion

Academics observe that Africa's growth following independence continues to be unsatisfactory. Although historical elements such as colonialism and neo-colonialism are sometimes cited as culprits, the primary cause of Africa's underdevelopment is the West's apprehension that African industrial growth will undermine Western capitalism. If Africa were to refine 70% of its own raw materials and manufacture its own machinery, Western firms would forfeit access to inexpensive resources and controlled markets. To combat this systematic oppression and use globalization, African leaders need to implement targeted structural strategies.

11. Recommendations

In order to combat the predatory dynamics of globalization, African leaders need to reshape the continent's role in the international marketplace. Essential tactics encompass allocating resources to vocational education, enhancing infrastructure, assisting small and medium enterprises with contemporary manufacturing technology, and implementing import-substitution industrialization to disrupt the entrenched global division of labour.

Moreover, Africa should emphasize the development of digital infrastructure and human resources to localize technology and diminish its dependence on Western neocolonial powers. Due to the potential for successful autonomous industrialization to provoke Western economic sanctions or military destabilization, the African Union must enhance continental integration to establish a cohesive market and a coordinated defense strategy. To attain technological autonomy, African decision-makers ought to circumvent Western obstacles and establish unimpeded alliances with Eastern Bloc and Western-

labeled "rogue" nations to obtain sophisticated scientific expertise.

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Digital Switch-Over Policy Impact in Contemporary Media Industry: A Critical Review

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Abstract. Nigeria's Digital Switch-Over (DSO) policy, contrived under the International Telecommunication Union's GE06 Agreement of 2006 and ratified in the 2012 White Paper, has spent two decades pulsating between technological promise and implementation paralysis. This article offers a critical review of the policy's effects on three interlocking domains of the mass communication environment, the creative industry, advertising sector, and the financial gatekeepers who control access to broadcast infrastructure. Adopting a qualitative, document-based critical policy analysis grounded in political economy of media and gatekeeping theory, the study draws on regulatory dispatchers, industry association statements, and concurrent reporting on the 2026 "Big Picture" relaunch and the June 17, 2026 national launch. Findings indicate that while the policy holds genuine potential to expand distribution channels, formalise audience measurement, and unlock a projected ₦605.2 billion advertising market, its benefits are structurally mediated by a narrow group of signal distributors, set-top-box manufacturers, and satellite infrastructure operators whose financial interests increasingly shape policy direction. The review further identifies a governance conflict arising from the broadcast regulator's double as both rule-maker and platform curator, alongside affordability risks tied to a satellite-dependent access model. The article concludes that without deliberate structural checks, the DSO risks reproducing the very gatekeeping imbalances digitisation which is meant to be dismantled, and offers policy recommendations for a more equitable transition.

Keywords: Digital Switch-Over; broadcast policy; creative industry; advertising; financial gatekeepers; political economy of media; Nigeria

1. Introduction

The migration from analogue to digital earthy broadcasting has been one of the defining infrastructural projects of twenty-first-century mass communication policy. Framed globally by the International Telecommunication Union's 2006 Geneva Agreement (GE06), which set an original deadline of 17 June 2015 for the cessation of analogue television transmission, the Digital Switch-Over (DSO) was conceived as a technical upgrade with sweeping economic and cultural consequences such as more channels within the same spectrum, sharper audiovisual quality, and a structural opening for new entrants into content production and distribution (García Leiva & Starks, 2009).

In Nigeria, the policy has had an unusually long and contested gestation. The Federal Government's 2012 White Paper formalised a roadmap toward digital earthy television, yet the original 2015 deadline collapsed almost immediately, and by the government's own account, more than ₦60 billion was expended between 2009 and 2025 on pilot rollouts in Jos, Abuja, Lagos and a handful of other cities with little to show for it nationally (Guardian, 2026a). After nearly two decades of missed targets, the National Broadcasting Commission (NBC) unveiled a revised "Big Picture" strategy in 2026, combining Digital Terrestrial Television (DTT), Direct-to-Home (DTH) satellite delivery, and Internet Protocol (IP)-based platforms into a single hybrid model, with a national

launch fixed for 17 June 2026 and a final analogue shutdown scheduled for 31 December 2028 (Federal Ministry of Information and National Orientation [FMINO], 2026; Leadership, 2026).

This relaunch has reopened long-standing debates about who actually stands to benefit from digitisation. Government officials describe the DSO as “fundamentally an economic and creative industry project” capable of stimulating local manufacturing, expanding audience reach, and unlocking new advertising revenue (FMINO, 2026). Industry bodies, by contrast, have warned that the new satellite-centred model could impose hidden costs on millions of households and that the regulator’s expanding commercial role creates a conflict of interest at the heart of the policy (Broadcasting Organisations of Nigeria [BON], as cited in *BusinessDay*, 2026; *Arise News*, 2026). This article takes these competing claims as its point of departure and asks, how has the DSO policy, in both its design and its implementation, reshaped power and value distribution across the creative industry, the advertising sector, and the financial gatekeepers of Nigerian broadcasting? In doing so, it treats the DSO not merely as a technology transition but as a redistribution of gatekeeping power, in keeping with mass communication scholarship that reads infrastructural policy as inseparable from the political economy of media (Abikanlu, 2020).

2. Theoretical Framework

This review is grounded in two matching theoretical traditions. The first is the political economy of media, which examines how ownership, financing, and regulatory structures shape what content is produced, distributed, and monetised, and for whose benefit. Applied to Nigeria’s DSO, this lens draws attention to the “interplay of interests between political and corporate actors” that has historically slowed and reshaped the country’s digital migration (Abikanlu, 2020). The second is gatekeeping theory, traditionally used to describe the editorial filtering of news content but extended here, following its application to broadcast value chains, to the infrastructural “gates” through which content must pass before reaching audiences i.e. set-top boxes, signal distribution networks, satellite transponders, and audience measurement systems (Open Society Foundations, 2011). Scholars working within African media studies caution that gatekeeping theory, conceived within Western institutional contexts, must be applied carefully to African media ecologies whose ownership structures, regulatory cultures, and informal practices differ markedly from those assumed in the original framework (Akpan, 2023). This caution is taken

seriously here, rather than assuming a single, neutral gate, the review treats Nigeria’s DSO infrastructure as a set of competing, commercially interested gates whose operators, signal distributors, set-top-box manufacturers, satellite operators, and the regulator itself are best understood as financial gatekeepers in their own right.

3. Policy Background: Two Decades of Switch-Over

Nigeria’s DSO journey began in 2006 when it joined 103 other countries in signing the GE06 Agreement, committing to migrate from analogue to digital broadcasting by June 2015, with African signatories granted a grace period extending to 2020 (Ezeaku, 2024). The 2012 White Paper subsequently set out Nigeria’s domestic implementation architecture, licensing of set-top-box manufacturers, the designation of signal distributors as carriers independent of content producers, and a phased rollout beginning with pilot cities. As Sanusi (2024) documents in a comparative doctoral study of Nigeria’s digitisation within the global digital broadcasting trend, the country’s experience split sharply from smoother transitions elsewhere because of recurring funding shortfalls and shifting institutional priorities.

Government’s own retrospective accounting severe the roughly ₦60 billion spent on the programme between 2009 and 2025, subsidised set-top boxes, partial transmission infrastructure, and pilot launches in a small number of cities absorbed the bulk of expenditure, while the overwhelming majority of Nigerian households remained on analogue signal well past the original 2015 deadline (Guardian, 2026a). Ezeaku (2024) attributes this stagnation principally to inadequate government funding, a shortage of skilled technical manpower, and weak public sensitisation about the switchover, while Abikanlu (2020) locates the delay more specifically in the restrictive structure of implementation and the NBC’s expanding regulatory discretion.

The 2026 relaunch represents a marked strategic pivot. Instead of persisting with a earth-only model, the NBC’s “Big Picture” framework adopts a converged DTT-DTH-IP architecture built around a satellite partnership with the Nigerian Communications Satellite Limited (NIGCOMSAT) and a new “FreeTV” platform that had aggregated more than 100 channels ahead of the June 2026 launch (Technology Times, 2026; *Arise News*, 2026b). Official projects that full implementation could unlock a ₦605.2 billion national advertising market and release digital

dividend spectrum in the 700/800 MHz bands valued at over US\$1 billion in potential auction proceeds, to be reinvested in broadband and rural infrastructure (Guardian, 2026b, Leadership, 2026).

4. Research Methodology

This article is a critical, document-based policy review rather than an empirical field study. It synthesises primary regulatory communications (NBC and FMNO statements, stakeholder communiqués), industry association position statements (notably from the Broadcasting Organisations of Nigeria), and a purposive sample of contemporaneous Nigerian and trade press coverage of the 2026 DSO relaunch, triangulated against the peer-reviewed and doctoral literature on Nigeria's digitisation experience (Abikanlu, 2020; Ezeaku, 2024; Sanusi, 2024). Consistent with critical policy analysis traditions in mass communication research, sources were read not for their literal claims alone but for the institutional interests embedded within them, attending, in particular, to the positions of distinct stakeholder categories (government, regulator, broadcasters, signal distributors, set-top-box manufacturers, advertisers) and the points at which their stated interests split. The limitations of this approach are acknowledged, because the national launch is concurrent with this review, conclusions about audience-level and revenue outcomes are necessarily provisional and should be revisited as implementation data accumulates.

5. Impact on the Creative Industry

5.1 The Promise: Lower Barriers, Wider Distribution

The structural logic of DSO has long been attractive to creative-industry advocates. By separating content production from signal transmission, the framework allows television stations to focus solely on producing content while licensed signal distributors handle broadcasting, which government officials argue “drastically lowers the cost of launching a TV station,” opening space for niche and specialised channels (The Cable, 2026). The NBC frames the DSO as “fundamentally an economic and creative industry project,” citing a creative economy already contributing an estimated ₦5 trillion to GDP and supporting more than 4.2 million jobs, which expanded digital distribution is projected to grow further through improved content monetisation (Leadership, 2026; FMNO, 2026).

5.2 The Critical Counterpoint

Yet the optimistic projection sits uneasily against two decades of evidence that infrastructural promises in this sector have repeatedly surpassed delivery. Ezeaku (2024) found that the absence of skilled technical manpower and weak capacity-building among media personnel has historically constrained producers' ability to exploit even the digital infrastructure that has been built. More structurally, Abikanlu's (2020) political-economy analysis of the DSO process found that exclusionary implementation arrangements have tended to advantage already well-resourced incumbents over the independent producers the policy seemingly aims to empower. The 2026 relaunch does little to resolve this imbalances, local set-top-box manufacturers have complained for years of being sidelined by cheaper imported alternatives despite their statutory licensing, even as government commits to “protecting investments already made” by those same licensed manufacturers a protection that, by definition, entrenches rather than opens the manufacturing gate (Guardian, 2026a; News Agency of Nigeria [NAN], 2026).

A further critical concern is distributional instead of purely economic. Expanded channel capacity does not automatically translate into expanded creative diversity if the underlying carriage and accumulation arrangements remain concentrated. With the regulator itself now curating the channel line-up on the FreeTV satellite platform, decisions about which of the “more than 100 channels” gain carriage become, in effect, an additional gate through which independent and regional content producers must pass, one governed by regulatory discretion rather than market competition (Broadcast Media Africa [BMA], 2026a).

6. Impact on the Advertising Industry

6.1 The Promise: Measurable Audiences, Larger Budgets

For the advertising industry, the DSO's central appeal lies in audience measurement. Officials argue that the digital infrastructure's integrated measurement software will allow advertisers to track exact viewership data for the first time at scale, a capability expected to unlock a substantial share of the projected ₦605.2 billion national advertising market that currently under-monetises television relative to its reach (The Cable, 2026; Arise News, 2026b). The Federal Government has directed the NBC and the Advertising Regulatory Council of Nigeria (ARCON) to jointly develop “a sustainable business framework” intended to strengthen audience measurement systems

and improve advertising revenue generation for broadcasters (FMNO, 2026; NAN, 2026).

6.2 The Critical Counterpoint

This promise, however, is dependent on governance issues that remain largely unresolved. Verifiable audience measurement is only as credible as the body that administers it, and with the NBC simultaneously acting as regulator, infrastructure partner, and platform curator, the independence of any measurement standard it co-develops with ARCON is open to question. Critics have already characterised much of the public contestation around the 2026 relaunch as a fight over economic “lease” among incumbents, “box manufacturers, signal distributors and the cottage industry that has fed on two decades of pilot phases” rather than a disinterested pursuit of audience transparency (BMA, 2026a). Where audience measurement infrastructure is built and controlled by the same actors who profit from advertising volume, the resulting metrics risk becoming a commercial instrument for the dominant platform rather than a neutral public good, a concern consistent with political-economy critiques of media measurement systems more broadly.

There is also an equity dimension, where advertising revenue unlocked by improved measurement is unlikely to be distributed evenly across the broadcast sector. Larger, well capitalised broadcasters already carried on NIGCOMSAT transponders and existing OTT platforms are positioned to capture disproportionate advertising gains from formal measurement, a dynamic the Broadcasting Organisations of Nigeria has implicitly flagged in alleging that the NBC is simply aggregating existing channels onto a new platform and relabelling the result as a switchover (BMA, 2026b).

7. Financial Gatekeepers: Who controls the gate?

The most significant and least examined, dimension of the DSO is the group of financial gatekeepers whose commercial positioning determines practical access to the digital broadcast environment. Four categories stand out:

7.1 Set-Top-Box Manufacturers

Licensed manufacturers occupy a foundational gate, without an affordable, compliant decoder, no household can receive a digital signal. Two decades of policy have left this gate only partially open. Local manufacturers have historically complained of being

sidelined by cheaper, non-compliant imports, even as the government has repeatedly pledged tariff relief and local-assembly mandates to make compliant equipment more affordable (Ezeaku, 2024; Guardian, 2026a). In 2026, this gate became a live political flashpoint, by which stakeholders clearly demanded that the NBC remain committed to protecting investments already made by licensed set-top-box manufacturers, a demand the Commission accepted (NAN, 2026; Channels Television, 2026). Protecting sunk investment, however, it is not the same as expanding access it preserves incumbents' financial position within the gate rather than testing whether that gate serves households efficiently.

7.2 Signal Distributors

Designated signal distributors hold an even more concentrated gate, since the DSO's architecture deliberately separates content production from transmission and routes all broadcast signal through a small number of licensed carriers. The Broadcasting Organisations of Nigeria's intervention in 2026 centred precisely on this point, warning that satellite-driven aggregation under NIGCOMSAT could bypass the established Signal Distributor framework altogether and that the matter required reconvening statutory stakeholders, including licensed signal distributors, set-top-box manufacturers, broadcasters, and the original DigiTeam implementation committee (Business Day, 2026; BMA, 2026b).

7.3 Satellite and Infrastructure Operators

The pivot toward a converged DTH/DTT/IP model elevates NIGCOMSAT from a peripheral technical partner to a central financial gatekeeper, since DTH satellite access typically requires a dedicated dish, compatible decoder hardware, and professional installation, costs of a different order than the simple rooftop-antenna decoder required for conventional DTT (BusinessDay, 2026). The Commission has marketed the new platform as “FreeTV,” yet the broadcasting industry's own trade body has cautioned that this framing obscures a “hidden financial burden” that the satellite-based model could impose on millions of Nigerian households unable to incorporate the upfront equipment cost (Arise News, 2026a).

7.4 The Regulator as Gatekeeper

Perhaps the most structurally significant finding of this review is that the NBC itself has become a financial gatekeeper instead of a neutral referee among them. Commentary on the relaunch has been blunt on this point, the regulator that licenses, polices, and

adjudicates Nigerian broadcasting is now also building, branding, and curating the platform through which 100 channels reach the living room, and calling it a market facilitator does not resolve the conflict; it dresses it up (BMA, 2026a). This is a textbook instance of regulatory capture risk running in the opposite direction from the classical model, instead of the incumbents capturing the regulator, the regulator has become a market participant whose institutional incentive to declare its own initiative a success now sits alongside its statutory duty of impartial oversight.

8. Convergence, Cost and Concentration

Reading the creative, advertising, and gatekeeping dimensions together reveals a consistent pattern the DSO's stated objectives that is, job creation, expanded content monetisation, verifiable audience measurement, and broader access, are not in dispute among any of the stakeholders reviewed here. What is contested is the distribution of the costs and benefits required to achieve them. The historical record gives reason for caution. Over ₦60 billion spent between 2009 and 2025 produced only partial pilot coverage (Guardian, 2026a), suggesting that financing failure, not technological ambition, financing failure has been the recurring point in Nigeria's DSO trajectory a pattern consistent with comparative findings that digital switchover outcomes worldwide are shaped less by the chosen technology than by the institutional and financial arrangements surrounding it (García Leiva & Starks, 2009).

The 2026 hybrid pivot toward satellite delivery, while pragmatic in addressing Nigeria's uneven environment infrastructure, introduces a new affordability risk that disproportionately affects lower income and rural households precisely the population segment the policy claims to be including (BusinessDay, 2026). Meanwhile, the consolidation of regulatory, infrastructural, and curatorial functions within the NBC raises governance concerns that are contestable and more significant than any single financial gate, because they affect the credibility of every downstream claim about audience reach, advertising value, and content diversity. Where Western gatekeeping theory assumes a relatively stable separation between gatekeeping institutions and the content they regulate, the Nigerian case illustrates Akpan's (2023) broader caution that imported theoretical frameworks require careful adaptation to local institutional realities, in this instance because the regulator-as-gatekeeper occupies a hybrid role with few precedents in the classical literature.

9. Conclusion and Policy Recommendations

Nigeria's Digital Switch-Over policy, twenty years in the making, stands at a genuine turning point in 2026. The potential gains for the creative and advertising industries are real and well documented by the policy's own architects. However, this review finds that those gains are currently mediated by a narrow set of financial gatekeepers that is the set-top-box manufacturers, signal distributors, satellite operators, and the regulator itself, whose commercial interests do not automatically align with the broader public-interest goals of affordable access, content diversity, and measurement integrity. On the basis of this analysis, the following recommendations are offered:

Separate regulatory and commercial functions. The NBC's roles as licensor and as platform curator/aggregator should be structurally separated, whether through an independent platform operator or an arm's-length oversight board, to remove the conflict of interest identified in this review.

Subsidise the DTH transition cost for low-income households. If satellite delivery becomes the default access route, a transparent, means-tested subsidy for dishes and decoders is necessary to prevent the DSO from becoming a regressive policy in practice.

Establish an independent, multi-stakeholder audience measurement body. Joint NBC-ARCON measurement standards should be insulated from the commercial interests of any single platform operator to preserve advertiser and broadcaster trust.

Reopen the manufacturing and distribution gates to genuine competition. Protecting sunk investment should not be conflated with protecting market position; local content and manufacturing incentives should be paired with periodic licence review.

Institutionalise independent financial auditing of DSO expenditure. Given the documented ₦60 billion spent with limited nationwide outcomes between 2009 and 2025, future disbursements should be tied to publicly verifiable milestones rather than administrative discretion.

Future research should track implementation data following the June 2026 launch particularly household decoder uptake, advertising revenue distribution across broadcaster tiers, and independent producer access to FreeTV carriage, to test empirically whether the structural concerns raised in this review materialise in practice or are resolved through the stakeholder

consultation processes the NBC has committed to undertaking.

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Healing Beyond the Body: Afemai Indigenous Medicine, Spirituality and the Philosophy of Holistic Healthcare

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Abstract. This study explored Afemai indigenous medicine, spirituality, and holistic healthcare philosophies by positing that traditional healing among the Afemai peoples of Edo state Nigeria extend beyond treating the physical aspects of illness to include the psychological, social, spiritual and ecological. In the Afemai worldview health is defined as being in harmony with oneself, others and the spiritual realm/natural environment. Therefore, when individuals are unwell, they are often experiencing a disconnection from these three realms. The study presents a qualitative analysis of the Afemai peoples indigenous healing methods such as herbal remedies, traditional bone-setting, divining, spiritual therapies, and traditional midwife care. The study's qualitative methodology used ethnographic studies, phenomenological interpretations and historical analyses to explore the philosophical underpinnings of Afemai indigenous health care. The study demonstrates that Afemai indigenous medicine is grounded in a holistic model of healthcare that understands body, mind, spirit, communities and nature as interdependent. The study suggested that despite threats from Westernization, modernization, western science and western regulatory agencies, indigenous healing methods continue to have relevance to current debates about African bioethics; integrative medicine; and culturally competent and responsive healthcare.

Keywords: Afemai indigenous medicine; traditional healing; holistic healthcare; African indigenous knowledge; bioethics.

1. Introduction

The Eurocentric way of viewing Afemai traditional medicine is representative of the historical Western academic method of evaluating and comparing African indigenous medical systems using Western

biomedicine, colonial thought processes, and enlightenment based only on rational thinking. Within Western approach, traditional medical practice among the Afemai people have been generally viewed as being unscientific, primitive, superstitious, and therefore incompatible with modern healthcare practices. Therefore, a practice that is to be rejected and discarded altogether. This point of view was developed during the time of colonization when Christian missionaries, colonial administrative officers and Western trained physicians were attempting to remove indigenous medical traditions from communities in order to provide them with Western medicine and Christianity (Comaroff & Comaroff, 1991; Hountondji, 1996).

In recent years there are numerous contemporary scholarly perspectives challenging the views that have previously been held regarding indigenous knowledge, specifically regarding how indigenous medical knowledge represents a sophisticated system for providing health care which is based on its own philosophical, empirical and cultural basis (Mokgobi, 2014; WHO, 2013). The introduction of Western biomedical science into Africa during colonial period, had an immense effect on the traditional forms of indigenous care for the sick. Western medical science was based on empiricism, experimentation, and standardised pharmaceuticals. Many times, colonial authorities viewed indigenous healing traditions of Africans as inferior and paganistic (Comaroff & Comaroff, 1991). However, despite the important medical roles played by traditional healers in Afemai communities, colonial officials often referred to them as "witch doctors" so as to diminish their credibility in the eyes of the public in favour of western healthcare (Hountondji, 1996). Missionaries of Christianity reinforced this perception in that they associated traditional healing practices with idolatry, paganism, and occultism. Therefore, many indigenous healing institutions of Afemai people suffered from being

marginalized, despite the continuous acceptance by their own local communities (Onimhawo and Adamu, 2026).

Critics of Afemai indigenous medicine fail to recognize that indigenous healers have been developing a vast body of empirical knowledge over the years through long-term observations and experiments. In fact, numerous current pharmaceutical drugs originated from medicinal plants used in traditional healing practices (Anyinam, 1995). Although many Afemai treatments need further validation regarding their pharmacological efficacy, dismissing an entire system of medical practice simply because of scientific verifications, ignore its very real contribution to healthcare.

Another primary characteristic of the Eurocentric viewpoint is the separation of medicine from religion. Western biomedical science generally interprets disease solely through biological optics of pathogens and genetics (WHO, 2013) whereas traditional Afemai medicine considers disease to be caused by a variety of different levels of causality (Mbiti, 1991). Biomedical science generally understands sickness as a problem that affects only the individual who has fallen ill. Diagnosing and treating sickness focuses on restoring biological normalcy through medical intervention, whereas traditional medicine among the Afemai people sees wellness as being inherently communal.

This communitarian approach to understanding health arises from African philosophical idea that personal identity occurs within interpersonal relationships rather than individually (Wiredu, 1996). However, Eurocentric scholars have frequently decried the explanations provided by Afemai medical epistemology, because they diverge from biomedical paradigms for explaining how diseases occur.

Afemai's indigenous knowledge system was also devalued because of lack of written documentation of scientific evidence. Eurocentric assumption is that oral tradition, which is how indigenous knowledge is passed down from generation to generation, does not provide the same level of intellectual rigor as written documentation. Therefore, many researchers classify Afemai medicinal epistemology as "folklore," even though there are now significant ethnobotanical and anthropological evidence that show indigenous African societies were, and are able to identify large numbers of medicinal plants, understand how to manage diseases, engage in preventative health care, and conserve the environment (Anyinam, 1995). While it is true that the lack of written documentation does not eliminate the possibility of empirical

evidence or scientific observation, some researchers continue to assume that oral traditions do not involve scientific observation or experimental procedures.

Not only did colonial authorities reject indigenous medicine and impose Western medicine on colonized peoples, but the legacy of this process is still evident today in many parts of Africa. The once respected and valued traditional healers were devalued. Younger generations began to show little interest in learning about the history and practices of indigenous medicine. Additionally, increasing numbers of educated Africans went to hospitals run by Europeans and used prescription medications made in Europe (Comaroff & Comaroff, 1991).

While this loss of knowledge and culture is certainly a tragic result of colonization, traditional medicine remains an important part of daily life for many people living in Afemai communities. Many people continue to seek out traditional healers when they need help dealing with illnesses that have a spiritual, cultural and psychosocial dimension.

However, many post-colonial scholars challenge Eurocentric evaluations of traditional medicine arguing that such evaluations rely too heavily on Western scientific standards. These scholars argue that if we are going to evaluate indigenous knowledge systems we must consider the ways in which those knowledge systems are grounded in specific cultural, philosophical, and epistemological contexts (Wiredu, 1996; Asante, 2007).

Furthermore, recent studies conducted by the World Health Organization (2013) recognize traditional medicine as an essential element of primary health care and recommend that member states incorporate scientifically proven traditional medical treatments into their national health care systems. However, the WHO recommends doing so while establishing standards for safe use, effectiveness and quality.

Eurocentric perspectives tend to under appreciate the numerous positive features of traditional medicine practiced by the Afemai people. Some unappreciated positive qualities of traditional medicine include: a more complete understanding of what makes up good health, a greater focus on preventing disease before it occurs, more accessible for people living in rural areas where access to Western style medical facilities are very difficult or non-existent, more affordable than Western-style medical interventions (prescription and medication), much richer ethnobotanical knowledge base regarding medicinal plant properties, better provision for emotional-psychological needs related to

illness (community support), and more culturally acceptable methods of providing assistance with respect to recovery from illness (Anyinam, 1995; Mokgobi, 2014).

Although traditional medicine in Africa continues to attract growing interest among scholars, large areas of research are still missing relative to the traditional healing systems of the indigenous peoples of Afemai. Most previous studies of African traditional healthcare focused broadly upon African indigenous medicine, or the practices of larger ethnic groups, i.e., the Yoruba, Igbo, Hausa, Akan, and Zulu. As a result, relatively little scholarly work has been done to document empirically and philosophically the ways by which Afemai traditional healing unites medicinal knowledge, spiritual beliefs, community norms and values and awareness of ecosystems within a unified whole healing system.

One of the most glaring omissions in prior research is the fact that much of what has been studied concerning traditional medicine has been viewed through either biomedical, ethnobotanical or anthropological lenses, without sufficient consideration given to the philosophical and religious frameworks out of which the indigenous world view informing the various Afemai concepts of health and illness emerge. In particular many studies have focused upon whether plant extracts used by traditional healers possess pharmacological properties, or what social and cultural roles traditional healers play in their communities, without recognizing that the indigenous world views out of which the concepts of health, illness and healing arise also define the nature of personhood. Therefore, these body of research provide a less-than-complete picture of traditional healing as a comprehensive philosophy of human wellness as opposed to simply an alternative form of therapy.

Another area where there is currently very limited scholarly study is related to the relationship between Afemai traditional healing and current holistic forms of healthcare. While it is becoming increasingly evident in international discussions of healthcare that there should be increased integration of complementary therapies into conventional healthcare delivery models that emphasize patient-centeredness, there are few studies that systematically assess how the basic principles of indigenous Afemai healthcare (e.g., relational aspects of personhood, communal obligations for health, spirit-based explanations for illness and health) can inform contemporary healthcare policies and provide culturally relevant frameworks for medical practice.

Scholarly research typically views the respective areas of study independently, thus neglecting the multi-dimensional characteristics of indigenous healing systems. Another significant methodology gap has been identified within existing literature. Most of the research utilizes secondary resources and general descriptions of African traditional medicine and does not utilize primary qualitative data collected through phenomenological methods in Afemai communities. As a result, the voices and day-to-day lives of traditional healers, community leaders and patients and those who have inherited indigenous knowledge have remained relatively unexplored amongst the Afemai people.

This study attempts to address both of these gaps by investigating Afemai indigenous medicine as a holistic health care system rooted in African philosophy and religious thought. The study advances beyond mere descriptive narratives of traditional healing and explores the philosophical assumptions, spiritual convictions, moral and ethical values and community practices which contribute to the delivery of indigenous healthcare amongst Afemai people.

Therefore, the purpose of this study is to examine the spirituality of Afemai indigenous medicine and its relationship to holistic healthcare. This paper presents the argument that Afemai healing process represents a broad healthcare philosophy that sees human wellness as a reciprocal relationship between body, mind, spirit, society and nature. By studying these indigenous models of healthcare, this study seeks to contribute to larger discourses in African philosophy, African epistemology, religion, bio-ethics and anthropology of healthcare, on the viability of indigenous knowledge systems for addressing contemporary health-related problems.

This study adopted a qualitative research design employing a documentary and phenomenological approach to examine Afemai indigenous medicine as a holistic healthcare system embedded within the religious, cultural, and philosophical worldview of the Afemai people of Edo State, Nigeria. This study utilized the critical evaluation and interpretation of prior scholarly literature and indigenous knowledge to describe the interrelated nature of health, spirituality and traditional healing. The documentary method involved a systematic evaluation of both primary and secondary information. A large number of primary sources were utilized in the study. Ethnographic accounts of the Afemai people, oral histories collected by anthropologists and historians, historical documentation by colonial governments, and policy documents from the World Health Organization represent examples of primary sources. Secondary

sources include peer reviewed journals, books, doctoral theses, conference papers and reports on African traditional medicine, medical anthropology, African philosophy, religious studies and indigenous healthcare systems. Literature specifically addressing the Afemai people their Edo speaking relatives were given priority for inclusion into this study so as to provide cultural specificities while placing the study in a larger context of contemporary African scholarship (Anyinam, 1995; Mbiti, 1991; WHO, 2013).

In addition to utilizing the documentary method, the study utilizes the phenomenological method. The phenomenological method is utilized to examine how illness, healing, well-being, ancestors, spiritual forces and interpersonal relationships among family members are perceived by the Afemai people. The advantage of using the phenomenological method is to uphold the understanding of how the Afemai people interpret their own indigenous healing practices independent of Eurocentric or biomedical assumptions. This method is most applicable to the study of indigenous health care systems since they are typically defined by how healthcare providers and patients define health-related concepts and events as well as the meanings associated with them (Mokgobi, 2014; Wiredu, 1996).

An analytic framework that includes both post-colonial theory and African indigenous knowledge systems provided a critical means of evaluating both the merits and limitations of Afemai traditional medicine. From this perspective, traditional medicine represents a valid form of knowledge that has been generated over multiple generations through direct observation, experimentation and culturally transmitted knowledge. Using post-colonial theory as part of the analytic framework offered a critical means of analysing how colonialism resulted in a devaluation of African healing systems while providing legitimacy to Western forms of biomedicine (Comaroff & Comaroff, 1991; Hountondji, 1996). By using both frameworks simultaneously, this study was able to offer an objective assessment of the advantages and disadvantages of Afemai traditional medicine by avoiding either overly romanticised interpretations or stereotypical views rooted in colonialism.

An examination of relevant literature was conducted to identify common themes. Common themes included indigenous conceptions of health and illness, herbal medicine, spiritual healing, divination, ancestral mediation, preventative health care, community wellness and interactions between traditional and biomedicine-based health care systems. All identified themes were analysed in light of the philosophical and

religious beliefs held by the Afemai people. Therefore, this study demonstrated that traditional medicine is a holistic system of health care that incorporates several components.

Academic rigor has been maintained throughout this study. Perspectives were compared from anthropology, African philosophy, religious studies, public health and medical sociology in order to obtain a comprehensive understanding of Afemai indigenous medicine while contributing to ongoing discussions regarding decolonisation of health care services, indigenous knowledge systems, and holistic health care models for Africans.

2. The Afemai Understanding of Health and Illness

The Afemai are an ethnolinguistic people who live in the Northern part of Edo State, Nigeria. They can be found in six local government areas: Akoko Edo, Etsako Central, Etsako East, Etsako West, Owan East and Owan West. While there is great similarity in language and culture between the Afemai and the larger Edo speaking people, there is considerable historical identity, social structure, religious belief system and indigenous knowledge base that differs greatly (Bradbury 1957; Ogbomo 1997).

It was not until the last half of the 20th century that the Afemai gained widespread recognition as a single group of people to include such related subgroups as the Etsako, Owan and Akoko-Edo. Historically prior to that time each subgroup referred to itself as a clan or kingdom. In addition to having similar cultural practices, kinship patterns, traditional institutions and cosmology, they also differ from all surrounding ethnic groups (Ogbomo 1997).

From a historical perspective the Afemai identify themselves through separate migration stories (Adamu 2026). Many of these stories connect the Afemai to the ancient Benin Kingdom, while others describe their ancestors settling in the area without reference to any connection to the Benin Kingdom and also interacting with neighbouring Yoruba, Nupe, Igala and Epira peoples. As a result of these contacts throughout history the Afemai developed a rich cultural heritage that includes both decentralized politics in some communities and centralized monarchies in others. To this day most traditional leaders such as the Okuokpellagbe of Okpella, Otaru of Auch, Ogiene of Uzairue continue to act as guardians of customary law and indigenous religions. Furthermore, in conjunction with other traditional health practitioners, they are still very active in maintaining traditional

practices of indigenous healthcare (Egharevba 1968; Bradbury 1957).

The economy of the Afemai has historically been dependent upon agriculture, hunting, fishing, crafts and trade. Agriculture continues to be the primary source of employment with major crops being yams, cassava, corn, rice, cocoyam, vegetables and palm oil. The close relationship between the people and their natural environment has allowed for the acquisition of large amounts of indigenous knowledge regarding medicinal plants, forests, rivers and wildlife. It is this knowledge of ecosystems that provides the basis for Afemai traditional medicine, where a variety of plant materials (roots, bark, leaves etc.) are used for curative purposes (Anyinam 1995).

Religion plays a central role in Afemai society. Prior to the advent of Christianity and Islam the people had an indigenous religion based on belief in a supreme Godhead and many lesser gods and goddesses as well as ancestral spirits and many other spiritual beings that affect human life. Both the physical world and the spiritual world were seen as interdependent with health problems viewed as having both spiritual and physical components. (Mbiti 1991).

Socially, the Afemai operate under a social organization that is predicated on extended families, lineage structures, age grade organizations and community cooperation. There is a strong emphasis placed on respect for elders and veneration for ancestors as well as shared responsibility for the welfare of all members. All these communal elements provide a context for how indigenous health care functions among the Afemai.

Traditional healers serve as guardians of medicinal knowledge passed down through generations using apprenticeships and oral traditions. Their expertise goes far beyond herbalism to include divining, giving spiritual counsel, routine cleansing, bone-setting, midwifery, preventive health services. In essence healing is viewed as a holistic approach to restoring balance between the physical body, the mind, the community and the spiritual realm. This inclusive view of health sets indigenous health care apart from biomedicine's narrow focus on treating disease at the level of the individual organism (Mokgobi 2014).

Although Christianity, Islam, globalization, formal education and urbanization have had substantial effects on modern day society of the Afemai traditional medicinal knowledge remains an essential element of health care. Many individuals continue to see traditional healers whether alone or in conjunction with biomedical professionals especially when

experiencing illnesses perceived as spiritually, psycho-social and culturally unique. Continued utilization by individuals demonstrates long-term viability of Afemai indigenous health care and illustrates value of African indigenous health knowledge systems (WHO 2013).

The indigenous view of Afemai people concerning illness and health views humans as part of an interconnected universe which includes the physical aspect of the body, the spiritual, interpersonal relations, the moral order and the environment. As opposed to the current Western biomedical model, where the concept of health can be defined by the absence of illness or disease, Afemai culture has a traditional definition of health that describes it as "balance" and "harmony." In order for individuals to be described as healthy they need to have their bodies in good working order. However, this alone does not constitute health. Individuals need to be in good working order physically. Additionally, individuals need to have proper social relationships in place. They also need to have a positive and balanced relationship with the spiritual forces of the world. They also need to feel at peace emotionally. They need to have the ability to contribute positively to their communities.

Afemai people view the individual as a social being who exists in relation to other beings. Individual's well-being relies on them having harmonious interactions with their families, friends, and all members of their society. There are many philosophies throughout Afemai that emphasize social existence and how individual beings exist interrelatedly with both seen and unseen elements of our worlds. Mbiti (1990) states that an individual's health encompasses not only their physical strength but also their sense of belonging in society and their spiritual stability. Health represents a state of equilibrium among all aspects of existence. When one dimension of an individual's existence becomes disturbed, it may lead to disturbances in other areas of that individual's existence. Therefore, healing for Afemai people means restoring a balance among these areas as opposed to solely focusing on eliminating an individual's symptoms. An African way of life views human flourishing as being dependent upon each person maintaining positive relationships with other individuals, spiritual beings and nature (Gyekye, 1995).

In addition to viewing health as balance and harmony in several areas of existence, the Afemai also identify what is referred to as harmony within each area. These include: physical harmony which indicates whether a person is strong and free from diseases. Psychological

harmony which refers to a person's emotional stability and lack thereof. Inner peace and mental well-being are reflective of psychological harmony. Social harmony which demonstrates whether or not a person maintains peaceful relationships within their family and community. Spiritual harmony which refers to a person's relationship with God, ancestors and spiritual beings. Environmental harmony which relates to how well a person interacts responsibly with the natural world. Therefore, for Afemai people, sickness and illness is not just a problem confined to the physical aspect of the body, but is also representative of a total disconnection within all areas of an individual's existence.

Traditionally, Afemai conceptualization of illness may be caused by more than one factor. While some illnesses may be conceptualized using a framework based on purely physical causations (e.g., injury, infection, malnutrition, environment), other illnesses may be interpreted within a socially-constructed and spiritually-based framework. Traditional Afemai medicine has historically operated with an expanded definition of causality. Illnesses may be understood as arising from: some illnesses are caused by physical factors such as: infections and diseases, accidents and injuries, dietary issues, environmental conditions, weak body. Treatment for these types of illnesses can include herbal medicine, dietary changes, physical therapies, etc. all of which have been developed through indigenous practice.

The African ethos and worldview of the Afemai people also understand that human relationships influence health. Therefore, various situations including but not limited to conflicts between individuals, society-wide injustices, broken relationships, and other moral transgressions can lead to personal suffering. Restitution for these types of illnesses may require reconciliation with those who have been wronged, forgiveness for those who have committed wrongdoings against the sick person or their family members, and restoration of social order and harmony. This is based on the African ethical principle that individual well-being cannot be separated from community well-being (Wiredu, 1996).

Furthermore, some illnesses experienced by Afemai individuals may be perceived as involving spiritual realities. The causes of this type of illness may include: disturbance of the spiritual connection between humans and spiritual entities, neglect of cultural responsibilities, violation of sacred traditions, ancestral wounds and disturbances and spiritual disharmony. As a result, healing for this type of illness may involve spiritual consultations and counselling

with spiritual leaders or priests, prayers and rituals, and other culturally significant practices.

A distinguishing aspect of Afemai views of health is that healing often takes place communally. In this way, when someone becomes ill it is considered by many to affect their entire extended family. Support for the sick person can be provided in various ways including by relatives; elder people; traditional healers and members of their community. Support from the community includes emotional help; counselling; conflict resolution; performing rituals and social integration of the patient back into the community. This collective approach to healing is representative of the belief in Africa that "a person is a person because of other persons," which has been described as a common philosophy within most aspects of African communal thinking (Mbiti, 1990).

Spirituality plays a vital role in the way Afemai people think about their health. For many Afemai, the spiritual world is very much alive and it contributes to our experiences; therefore, we must maintain balance among ourselves and the spirits in order to achieve good health. This belief system leads traditional healers to view medicine through a dual lens - one being medical and the other being spiritual. When patients become ill physically, they are also experiencing illness spiritually. Therefore, healing occurs at two levels.

The Afemai understandings of health reflect how they see humans related to the natural world. They use forests, plants, rivers and animals as a source of healing remedies, and for their cultural value. These healers have been using knowledge from medicinal plants passed down for generations, showing that there is an ecologic awareness, based on traditional ways of providing health care. In addition, this ecological perspective aligns with the African indigenous views which promote respect for nature, and responsible management of our environmental resources.

3. Major Traditional Healing Practices among the Afemai

Afemai traditional health care has been maintained across generations of indigenous knowledge. As such, the knowledge has been passed down from generation to generation using family networks, apprenticeships, ritual institutions, and customary practices. The main forms of traditional healing practices among the Afemai people are herbal medicine, spiritual diagnosis and divination, bone-setting, traditional midwifery, therapeutic rituals, and group-based healing techniques.

The use of medicinal plants (Pharmacopoeia) is one of the largest components of Afemai traditional health care. Traditionally trained herbalists are knowledgeable about many types of medicinal plants. These can be leaves, stems, roots, barks, seeds, etc. The knowledge about these plants is usually gained by observing how others use them to prevent or cure ailments. Most of this knowledge is also learned through hands-on experience. Many ways exist to prepare medicinal plants for the purpose of preventing or curing illness. Some examples are: preparation of decoction made from boiling medicinal plant material, crush leaves and roots for medicinal extracts, grind leaves and roots into powder for ingestion, apply topical mixture to open sores or skin lesions, prepare combination medicines out of medicinal plants with other natural products, use of medicinal herbs can help with a number of ailments. Examples are: treatment of fever and malaria, curing stomach problems, relieving respiratory issues, treating skin problems, reducing body pain and inflammation, helping to close cuts/sores, prevent infection, addressing reproductive health issues.

Using medicinal herbs is evidence of how Afemai recognize nature as a resource to obtain drugs for healing. Traditional healers have very complete information regarding each type of plant's characteristics and potential uses for treatment. Thus, there exists a relationship between the inhabitants and their surroundings based upon ecology (World Health Organization [WHO] 2019; Olupona 2014).

Divination plays an important role in Afemai traditional healing since some maladies occur due to reasons that cannot be explained physically. A traditional healer or diviner will seek to find those unknown variables that cause a person to become ill and determine what treatments should be employed. Factors that a traditional healer may examine in order to make a spiritual diagnosis could be: a disruption in relationships between individuals and supernatural beings, violations against cultural prohibitions and taboo, disruptions in family dynamics, concerns related to ancestors, imbalance in moral and social behaviours

In contrast to the Western scientific method of identifying bacteria, pathogens, physiological causes for disease, Afemai traditional spirituality attempts to explore the broader meaning and context of a person's suffering. The healer acts as both doctor and spiritual guide.

The fact that many Africans view themselves as humans having both visible (physical) and invisible

(spiritual) aspects to existence is demonstrated by the spiritual diagnosis process (Mbiti 1990).

Another major aspect of Afemai traditional medicine involves spiritual treatment and healing. Since health encompasses spiritual well-being as well as physical being, it follows that treatment and healing can involve procedures that restore equilibrium between the individual, community, spiritual reality and the natural world. Procedures that may fall under the category of spiritual healing and treatment are: prayer invocation, ritual cleansing, protective measures, reconciliation rituals and group worship. It would be incorrect to consider these practices simply as religious when considering their function as therapeutic interventions targeting the emotional, sociological, spiritual dimensions of human suffering. That illness is often interpreted within a conceptual framework of meaning, morality, relationship rather than primarily through biological causation is exemplified by the spiritual component of Afemai healing (Idowu 1973).

Bone-setters use their hands and local materials to treat broken limbs. Massage therapists use manipulation and pressure to stimulate blood flow and relieve pain. Herbalists use plants to create remedies to alleviate symptoms such as fever, nausea, vomiting, etc. Dietitians advise on proper food choices to prevent malnutrition, maintain energy levels, and reduce risk of various diseases. Spiritual counselors offer advice on how to live a balanced life; they often perform rites and ceremonies designed to bring people closer to God. In addition to these forms of healing, there exist several preventative measures taken by the Afemai to avoid sickness and misfortune. These include: adhering to certain traditions and customs, protecting oneself from evil spirits through prayer, ritual, and other means, taking care of one's body through proper hygiene and diet, maintaining social harmony and respect among members of one's community. All of these approaches serve as reminders that preventing illness is just as important as treating it once it has occurred. In fact, many believe that if the mind, spirit and body are all working together in a healthy way, then we will not become ill in the first place. This philosophy promotes overall wellness and good health.

4. Holistic Health Care System in Afemai Traditional Thought

The holistic nature of Afemai traditional medicine includes recognition that emotional and psychological issues can directly impact a person's health. Issues such as fear, anxiety, grief, social isolation and unresolved conflict can contribute to decreased

wellness. These traditional healers and elders are not only medical practitioners but also counsellors. They help individuals make sense out of their suffering and gain confidence in themselves again. This represents an African perspective on healing where the whole person is restored to wellness versus just treating a specific physical issue (Gyekye, 1995). Spirituality plays a significant role in the Afemai traditional healthcare philosophy. The Afemai perspective recognizes that human existence encompasses both seen and unseen realities. Some illnesses may be interpreted as having spiritual components that require spiritual interventions. Interventions such as prayer, spiritual consultation, ritual purifications, reconciliation rituals and religious practices can be utilized in attempts to achieve healing. However, the spiritual dimension does not exclude or replace physical treatments but rather supports them by answering questions concerning meaning, purpose, suffering and human destiny. African traditional religions serve as frameworks to assist in interpreting human experiences (including illness and healing) (Idowu, 1973).

Conflict Resolution Mechanisms are established and practiced to prevent conflict from leading to further suffering or illness. Reconciliation processes are followed to promote harmony among all parties involved. All members of the community participate together in various forms of healing activities. The community perspective in which the individual achieves fulfilment through positive relationships with others corresponds to the African philosophy, i.e., that the realization of one's full potential occurs when we cultivate healthy relationships with others. In fact, as argued by Mbiti (1990), many African concepts of personhood underscore the idea that "being a person" is best exemplified by participating in community life and that achieving social harmony is essential to our overall well-being.

The environmental area is not just regarded as a source of goods and services but as a living entity that sustains spiritually and culturally. Therefore, the preservation of natural areas such as forest, sacred spaces, and the conservation of natural resources are directly related to the promotion of health and wellness within communities. Destruction of these ecosystems will negatively affect not only biodiversity but also indigenous health care systems based on traditional ecological knowledge. This environmental viewpoint is reflective of an African indigenous worldview that emphasizes sustainable relationships between humans and the natural world (Olupona, 2014).

Prevention is a major component of traditional health care in Africa and amongst Afemai people. Maintenance of health involves practices that protect individuals against harm caused by physical, social, and spiritual forces. Some preventive practices used in traditional health care by Afemai people include: proper nutrition, respect for cultural norms, fulfilment of One's responsibilities towards others in society, protection of the environment, preservation of harmonious relationships. Prevention is understood broadly as maintaining equilibrium between individuals and their surrounding environments.

Amongst Afemai people, traditional healers serve several functions: medical practitioner, herbalist, expert spiritual advisor, counsellor, custodian of indigenous knowledge and guide to community development. Unlike Western-trained physicians who typically specialize in diagnosing and treating diseases affecting specific parts of the body, traditional healers frequently treat illnesses holistically by considering the totality of a person's life circumstances. Principles underlying holistic health care amongst Afemai people provide insight into the evolving discussion regarding integrative medicine, and culturally sensitive health care. The modern biomedicine movement is increasingly recognizing that treatment of patients should be approached from a holistic perspective, focusing on treating the total person as opposed to merely addressing an isolated biological issue.

Key contributions made by the holistic health care system of the Afemai people include: patient-centred care, community participation in health care delivery systems, prevention of disease and health Issues, promoting environmental health and wellness, providing spiritual support to patients. However, successful integration between indigenous and biomedical health delivery systems requires careful consideration, including documentation of indigenous knowledge and regulatory mechanisms to ensure safety for patients.

5. Traditional Healing and Contemporary Healthcare

This is an important area of study in global health and specifically within Africa's indigenous populations who are still using indigenous medical practices alongside biomedicine. For the Afemai people of Edo state, Nigeria indigenous medicine remains an important part of the population's overall understanding of the individual and how they interact with both the natural world and each other. On the other hand, modern medicine or what we call today contemporary or biomedical medicine is based almost

entirely on the sciences. It relies upon diagnostic methods which involve science and technology; evidence-based treatments; advanced medical training; and various technologies used during the treatment process.

In addition to looking at these two types of medicine as two separate entities, many researchers, practitioners, and organizations now advocate for collaboration and engagement between them. Collaboration would require acknowledging the positive aspects of indigenous medicine while working to address issues regarding safety, validity, ethics, and consistency across all areas of indigenous medicine. The use of both types of medicine together will allow for the creation of healthcare models which incorporate culture; are holistic; and meet the unique needs of the patient and community.

Afemai traditional healers do not just ask "what disease is this person experiencing?" but may ask additional questions such as: What societal influences contributed to this person's suffering? Are there disruptions in family and community relations? Has this illness taken on cultural and spiritual implications? How can this person achieve balance and harmony again? This is consistent with the larger body of thought on personhood found throughout most of Africa, where individuals are viewed as relational beings connected to community, ancestors, the divine and nature (Mbiti, 1990).

Indigenous medicine has continued to offer valuable contributions to modern healthcare, particularly in remote and rural areas where patients may lack access to biomedical facilities. Some ways that indigenous healers provide care to members of the Afemai community includes: herbal medicine, bone setting, birth assistance, spiritual counselling, health prevention activities and community-based health care. Perhaps one of the greatest contributions that indigenous medicine offers is its wealth of information regarding medicinal plants. Many indigenous medicines utilize plants native to their regions, and have represented generations of collective knowledge regarding the therapeutic potential of plants. The WHO recognizes traditional medicine as a viable healthcare option for millions of people around the world and recommends research and responsible integration of indigenous practices into health systems (WHO, 2019).

Biomedicine has had a profound impact on human health through advancements in scientific discovery and technological innovation combined with evidence-based treatment options. Advances in

biomedicine include: diagnostic accuracy, surgery, immunizations and epidemic control programs, emergency medical services, laboratory investigation and testing, pharmacological development and specialized clinical treatment options. Advances in biomedical practice have provided unparalleled success in controlling infections and diseases, traumatic injuries, chronic illnesses and emergency situations. Research and clinical trial processes exist to evaluate the efficacy and safety of new treatments.

However, biomedicine has some shortcomings in treating the cultural, societal, spiritual aspects of illness. When biomedical healthcare providers fail to take into consideration patients' cultural beliefs and their social context patients may perceive the healthcare system as impersonal. Although traditional healing has strong roots in culture, there are many obstacles facing traditional healing today. The three major challenges to traditional healing today include:

Lacking standardized procedures. Traditional remedies have varied among practitioners and, therefore, varying ways of preparing and dosing these remedies create a problem in assessing the efficacy of these remedies and maintaining patient safety. Limited documentation of indigenous medical knowledge. Much indigenous medical knowledge still exists in an unrecorded form. There needs to be further documentation through science to assess what are the active ingredients in medicinal plants, the beneficial effects they have as therapies, and possible adverse reactions to them. There are also some ethical concerns about using traditional healing like patient consent, confidentiality, safety standards and access to immediate medical treatment for emergencies. Also, modernization, environmental damage and changes in cultural practices pose a risk to passing down this traditional medical knowledge to future generations.

Establishing a collaborative working relationship between traditional healing and modern medicine will require developing a model based on mutual respect, not competition. It will not involve blindly accepting all traditional healing practices without first evaluating them. Rather, it will involve critically examining them scientifically, establishing ethical regulations governing how they can be used, and recognizing the value of indigenous medical knowledge.

Examples of potential areas of collaboration include: research and documentation, and training and regulation. Traditional practitioners could receive training in basic hygiene, patient safety, referral systems, and other aspects of basic healthcare. Traditional healers and biomedicine professionals could collaborate through referral systems where a traditional healer refers patients who need special or

advanced medical treatments to biomedical professionals. Communities should be able to protect their own indigenous medical knowledge while being prevented from exploiting the use of their traditional medical resources for profit.

6. Contributions of Afemai Indigenous Medicine to African Bioethics

The philosophical and spiritual dimensions of Afemai healing make considerable contributions to contemporary bioethical debates in Africa. Many contemporary bioethical frameworks emphasize universal principles such as autonomy, justice and individual rights. Although these principles continue to hold relevance, they provide an additional framework for indigenous African ethics which includes consideration of interconnectedness of communities, relational concepts of personhood, wellbeing as defined by spirit, responsibilities across generations and ecological interconnectedness. Therefore, Afemai traditional healthcare provides an alternate model that sees health as a common concern for humanity and the earth as opposed to seeing health as simply another medical condition to treat.

7. Conclusion

Afemai traditional healing practices illustrate a sophisticated indigenous healthcare model which goes far beyond treating just the physiological aspects of health, and instead includes all aspects of human existence. From the perspective of the Afemai people, their view of health encompasses a holistic world-view encompassing the interrelated dimensions. In this context, illness is viewed as potentially disrupting one or more of these four realms: physical; interpersonal; spiritual; and ecological. Therefore, healing in the view of the Afemai means restoring wholeness via combinations of physical, social/spiritual, and environmental intervention(s).

The study illustrated that indigenous medicine among the Afemai peoples is representative of a large body of knowledge that is practiced through several forms including, herbal remedy; spiritual diagnosis; traditional bone setting; midwifery; ritual healing; and community-based care. All of these practices represent key aspects of the underlying philosophical ideas concerning relational personhood, community responsibility, and the non-separation of persons from their spiritual and natural environments. As such, healers function as both practitioners of medicine and as guardians and custodians of culture and tradition and as moral guides to the well-being of communities.

From a religious viewpoint, traditional healing practices among the Afemai reflect the belief that health is contingent upon a harmonious relationship between human beings and the sacred order of existence. Healing rituals and spiritual practices offer frameworks for making sense out of suffering; for regaining meaning and purpose; and for dealing with existential concerns. Thus, indigenous healthcare in Africa cannot be completely comprehended without taking into account its religious and philosophical foundation.

Moreover, holistic health care among the Afemai also contributes significantly to current debates regarding integrative medicine, African bioethics, and culturally sensitive health care. The focus on preventive care, active participant role by communities, responsibility towards their environment, and total person care are examples of what could address many of the shortcomings found within pure biomedicine. However, for indigenous and modern health care systems to effectively collaborate there will need to be careful analysis, research and evaluation regarding ethics, regulations, recognition and respect for indigenous knowledge.

Therefore, traditional healing among the Afemai is greater than an alternate form of medical treatment; it is a representation of an indigenous philosophy of living that views health as a condition of harmony existing between human beings, society, community, spirituality, and nature. It is crucially important to protect and store this knowledge base not only for maintaining cultural heritage, but also for providing new perspectives toward more inclusive and humane models of health care in Africa and elsewhere.

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Socio-Structural Variations in English Proficiency among Senior Secondary School Students in Benue State, Nigeria: Interdisciplinary Evidence from Researcher-Administered Tests

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Abstract. This study examined socio-structural variations in English proficiency among Senior Secondary School Two (SSS II) students in Benue State, Nigeria, using researcher-administered testing to circumvent the coaching bias and examination malpractice that compromise WAEC and NECO results. Grounded in Variationist Sociolinguistics, the study investigated how spatial location, household linguistic background and socio-economic stratification, singly and interactively, shape English proficiency. A cross-sectional, causal-comparative design was adopted, with 900 students sampled through a multi-stage stratified procedure across an 18-cell ($2 \times 3 \times 3$) factorial structure spanning Benue North, Central and South. Data were collected using the Researcher-Administered English Proficiency Test (REPT) and the Socio-Structural Factors Questionnaire (SSFQ), and analysed using a one-sample t-test, one-way ANOVA and factorial ANOVA at the 0.05 significance level. Results showed that the overall mean proficiency score (44.6%) was statistically, though only marginally, higher than the 40% national minimum, $t(899) = 7.728$, $p < .001$, $d = 0.26$. Urban students significantly outperformed rural students, $F(1, 898) = 787.801$, $p < .001$, and proficiency rose systematically with greater household use of English, $F(2, 882) = 29.121$, $p < .001$. Socio-economic stratification was significant but non-linear, $F(2, 882) = 7.034$, $p = .001$. All two-way interactions and the three-way interaction among the factors were significant, with the three-way term explaining the most variance, $F(4, 882) = 22.907$, $p < .001$, $\eta^2 = .094$. The findings indicate English proficiency in Benue State is systematically stratified along, and compounded across, spatial, linguistic and economic lines, warranting targeted rather than uniform interventions.

Keywords: English proficiency; Socio-structural variations; Spatial location; Household linguistic background; Socio-economic stratification; Researcher-administered testing

1. Introduction

English functions beyond its role as a mere subject outlined in the curriculum in Nigeria; it is the official language, the principal medium of instruction and the indispensable key to academic progression and socio-economic mobility. Its proficiency is a central requirement for success in every secondary school-leaving examination and for entry into tertiary education. However, a lamentable national discourse persists regarding a perceived chronic decline in English proficiency among secondary school graduates. This discourse unfolds as evident by its consistent record in the Chief Examiners' Reports of the West African Examinations Council (WAEC, 2022). The perceived language decline is, nevertheless, not uniformly distributed across the diverse socio-cultural and economic configurations of the country; instead, it is shaped by profound variations in structural realities. Benue State presents a particularly compelling context for examining socio-structural variations in English language proficiency among secondary school students – in that the state exemplifies the complex interplay between geographical positioning, economic circumstances and educational outcomes that characterise much of Nigeria's educational realities.

Benue State is predominantly an agrarian society. This characteristic feature profoundly influences its settlement patterns and social structures. As a result, a significant proportion of its population – 75.4% according to World Bank (2022) – resides in rural areas, where the indigenous peoples are deeply

engaged in farming and entrenched within homogenous linguistic communities that rely predominantly on the Tiv, Idoma or Iggede language for communication purposes. The agrarian character of Benue State's economy, though providing sustenance for millions, creates a distinctive set of challenges for English language proficiency that extend far beyond binary urban-rural variations. According to Nyon et al. (2020), agricultural communities in the state often maintain stronger ties to indigenous languages, creating multilingual environments where English competes with local vernaculars for communicative ends. In rural areas, resource constraints quite often block students from access to cultural capital as essential assets for building literacy and English proficiency (Aule, Jibril & Adewuyi, 2017): books, digital technologies, qualified teachers and examination-coaching resources. These shortages also restrict access to social capital – peer networks, mentorship from teachers and alumni and supportive family or community structures – further operating in militation against opportunities for authentic English learning and long-term proficiency.

Variations in English proficiency across Benue also tend to reflect variations in linguistic operations of households across the state. Unlike in urban centres like the state capital, Makurdi, where English often functions as a lingua franca across diverse ethnic groups, rural households in Benue State typically maintain indigenous languages as the primary means of domestic communication. Adejola (2010) contends that while this linguistic continuity serves to preserve and perpetuate cultural identity, it also generates difficulties for students as they have to delicately walk a fine line between the prevailing languages in their households and the English-channel instruction that dominates the realities of secondary schools. Factors such as the extent to which families incorporate English into daily conversation, the presence of English-language media in the home and the level of parental proficiency in English – all operate together to shape the linguistic base on which formal education rests (Adegbite, 2019).

Lastly, Benue State, like much of Nigeria, is characterised by sharp socio-economic stratification, which directly influences parental capacity to provide educational resources – from textbooks to private tuition, that are known to bolster language acquisition (Uwatt, Ndifon & Ukpepi, 2010). These factors – spatial location, household linguistic background, socio-economic stratification – constitute the core socio-structural dimensions that may systematically predicate a student's progression towards English proficiency. The critical need, therefore, is to move

beyond anecdotal evidence and unreliable conventional examination scores to empirically measure true proficiency and its determinants within this unique context. Research necessity, therefore, compels the deployment of linguistic tools to establish the baseline English proficiency of secondary school students in the state through researcher-administered independent tests, alongside the utilisation of sociological tools to examine how spatial location, household linguistic background and socio-economic stratification operate interactively – both in dyadic and triadic configurations – to shape that baseline.

1.1 Statement of the Problem

The central problem addressed in the study is that despite decades of English being in use as the language of instruction in Nigerian secondary schools, persistent variations appear to persist in English proficiency among secondary school students – particularly across socio-structural lines. In Benue State, these variations are often masked by reliance on high-stakes Senior School Certificate Examination (SSCE) results. The examinations administered by such external bodies as WAEC and the National Examinations Council [NECO] are increasingly compromised by systemic issues arising from curriculum narrowing, coaching bias and widespread examination malpractice (Imborivungu & Orshi, 2017), thereby rendering authentic communicative proficiency subterranean, concealed beneath the inflated outcomes of these compromised assessments. Scholarly research cautions against using examination populations to assess foundational language skills. For example, Fleckenstein et al. (2016) argue that standardised assessments within the frameworks of native speakers often misrepresent non-native learners' true proficiency – an outcome associated with test conditioning and coaching bias. Similarly, Gitsaki and Coombe (2016) highlight that exam-focused instruction distorts the curriculum. This, according to the scholars, compromises the ecological validity of language evaluation. Seshagiri and Krishna (2023) further emphasise that communicative competence is best evaluated outside the constraints of examination preparations, advocating for alternative assessments that reflect authentic language usage. This study circumvents these limitations by opting for researcher-administered tests of the baseline English proficiency of Senior Secondary School Two (SSS2) students in Benue State, since these students are not yet drawn into the vortex of external examination preparation pressures. This would capture authentic, on-the-spot language proficiency, free from distortions of strategic preparations, coaching bias or

malpractice within the socio-cultural context of secondary school students in Benue State, Nigeria.

1.2 Research Questions

- What are the variations in the baseline English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria?
- What are the spatial location variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the household linguistic variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across:

Spatial Location × Socio-economic Stratification;
Spatial Location × Household Linguistic Background;
Socio-economic Stratification × Household Linguistic Background.

- What are the three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria?

1.3 Null Hypotheses

- There are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria.
- There are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant household linguistic variations English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant two-way interactive variations in English proficiency scores

among secondary school students in Benue State, Nigeria across:

Spatial Location × Socio-economic Stratification;
Spatial Location × Household Linguistic Background;

- Socio-economic Stratification × Household Linguistic Background.
- There are no significant three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria.

2. Theoretical Framework (Variationist Sociolinguistics)

Variationist Sociolinguistics, primarily associated with the work of William Labov (1972), provides a robust theoretical framework for understanding how linguistic variation correlates structures such as location, household linguistic background and socioeconomic stratification. This theoretical approach posits that patterns of language use and proficiency are neither uniform nor random. Rather, according to the theoretical approach, these patterns operate in covariance and correlation with social categories and structural conditions (Labov, 1972). Conceptually speaking, variationist approaches demonstrate that proficiency in a second language like English is influenced by spatial and socio-economic disparities, where urban-rural divides or economic status may predict variations in exposure and usage. From variationist sociolinguistic lens, measures of English proficiency – in phonology, morphosyntax, lexis and communicative performance – are expected to show systematic variations across groups defined by geography (urban/rural), socio-economic position and household language use. Practically speaking, variationist theory interrogates three core expectations that tally up with the study's research questions: (1) spatial gradients in proficiency, where urban contexts typically offer more frequent and higher-quality exposure to English; (2) household-linguistic gradients, where home language repertoires shape the quantity and quality of L2 input and opportunities for use; and (3) socio-economic stratification gradients, where families with access to greater economic, cultural and social capital provide more mediated opportunities for English practice (Tagliamonte, 2012). Also important: the variationist lens foregrounds interaction effects – precisely the two-interactions (Spatial Location × Socio-economic Stratification; Spatial Location × Household Linguistic Background; Socio-economic Stratification × Household Linguistic Background) as well as three-way interactions (Spatial Location × Household

Linguistic Background × Socio-economic Stratification) that Research Questions 5 and 6 seek to establish – looking at the propensity of socio-structural factor not to act in isolation but to intersect with themselves to produce patterned outcomes (Eckert, 2000).

3. Literature Review

3.1 The Concept of English Proficiency

English proficiency is a multifaceted construct in second language acquisition. The concept can be defined as the ability of an individual to understand, produce and interact in English across reading, writing, listening and speaking domains. Looking at multilingual contexts, English proficiency extends beyond grammar to encompass pragmatic competence, vocabulary depth and adaptability to diverse registers (Cummins, 2000; Saville-Troike, 2006). As contemporary research demonstrates, English proficiency is a significant factor in relation to positive correlations with academic outcomes across a multiplicity of subject areas. For example, Ozowuba's (2018) comprehensive study of 225 Nigerian secondary school students revealed strong correlations between English proficiency and some subject-specific outcomes: Biology ($r = .74$); Government ($r = .68$); and Mathematics ($r = .62$). These findings support theoretical arguments that English proficiency serves as a skill foundational to content area learning in educational systems that utilise English as the medium of instruction (Taye & Mengesha, 2024; Lin, 2021; Rudd & Honkiss, 2020; Grisso, 2018).

3.2 Spatial Location Variations in English Proficiency

Spatial location, particularly the urban-rural divide, drives significant variations in English proficiency, which reflects broader socio-structural variations in resource allocation and educational infrastructure. Urban areas typically offer superior access to qualified teachers, libraries and digital tools, which enable students to engage more effectively with English as a medium of instruction. In rural settings, on the other hand, schools are characterised by understaffing and reliance on unqualified teachers who favour the use of indigenous languages (Obiakor, 2024). Conceptual models of educational geography - like those drawn from human capital theory - posit that locational dynamics operate to elevate the levels of language proficiency by facilitating exposure to diverse linguistic inputs and extracurricular English immersion, which can lead to measurable performance gaps (Alokan & Arijesuyo, 2013). Adeyeye's (2017)

analysis of examination records from south-western Nigeria shows a clear divide: urban students consistently achieve higher scores in English literacy than their rural peers, who often lag behind by 20–30 per cent. The reasons are not hard to find: variations in infrastructure and limited parental support for homework play an important role. Similar patterns appear elsewhere. Studies from South Africa, India and China report that rural learners struggle compared with those in cities, largely because of unequal access to educational resources (Azam et al., 2013; Taylor, 2009). These findings suggest that spatial location is a structural driver of variations in English proficiency.

3.3 Household Linguistic Background Variations in English Proficiency

Household linguistic background is a significant phenomenon behind variations in English acquisition, particularly in multilingual societies. Cummins (1979) argues, through his interdependence hypothesis, that first-language competence can either aid or obstruct second-language learning, depending on the circumstances of instruction. Building on this, Vygotsky's sociocultural theory views language growth as a process shaped by social interaction, where family repertoires may serve as a support or a barrier to English acquisition. In Nigeria, these influences play out differently: rural households tend to use the mother tongue almost exclusively, whereas urban families are more likely to incorporate English into everyday communication (Bangbose, 2011). Comparable findings exist across Africa. In Ghana, for example, Owu-Ewie (2006) highlights the consequences of English-only language policies, while Hungi et al. (2018) in Kenya shows how home language practices shape early confidence in English. Globally speaking, bilingual households enrich linguistic repertoires, but where English is absent at home, schools become the sole site of acquisition, limiting proficiency.

3.4 Socio-economic Variations in English Proficiency

Socio-economic presents itself as a robust predictor of variations in English proficiency outcomes, with systematic research documenting substantial relationships between family economic resources and language learning achievement. These relationships operate through multiple mechanisms: including differentials in access to educational resources, quality instruction and supportive learning environments. For empirical evidence, Schwab and Lew-Williams's (2016) conceptual and empirical overview of literature identifies substantial socio-economic gradients in

early language experiences that establish trajectories which extend to formal schooling. Their research highlights vast variations in language exposure. Children raised in professional households are exposed to millions more words than those from less advantaged backgrounds. These early differences create cumulative advantages that compound over extended time periods, establishing persistent variations in achievement. International findings point in the same direction. Studies from the United States, India and South Africa show that social and economic position plays a decisive role in shaping both literacy and second-language outcomes (Azam et al., 2013; Gamoran, 2001). Nigeria is no exception: pupils from more privileged households usually achieve higher results, whereas those from poorer backgrounds often contend with obstacles such as weak reading culture, inadequate parental support and, in some cases, poor nutrition (Adewale, 2012). Socio-economic variations are therefore significant realities in English proficiency.

3.5 Empirical Gap and Justification

The literature reviewed identifies patterns of variations in English proficiency. The studies reviewed, however, have failed to integrate them into a unified model within the secondary school context of Benue State. In essence, none of the studies have simultaneously modelled spatial, socio-economic and household-linguistic variations, nor explored their interactions using malpractice-free, researcher-administered proficiency testing. Crucially, there is no state-wide, independently measured baseline of English proficiency for secondary school students in Benue State. This lack of comprehensive, triangulated evidence – capturing multiple dimensions and their interplay – constitutes the core empirical gap this study seeks to address.

4. Research Methodology

This study adopted a cross-sectional, causal-comparative (ex post facto) research design to examine the relationships between pre-existing socio-structural factors (spatial location, household linguistic background and socio-economic stratification) and English proficiency among Senior Secondary School (SSS) II students in public

secondary schools in Benue State, Nigeria. A sample of 900 students was selected through a multi-stage stratified sampling procedure designed to ensure adequate statistical power for a $2 \times 3 \times 3$ factorial design, with approximately 50 participants drawn from each of the 18 experimental cells. The state was first stratified into the three senatorial districts, followed by urban-rural classification of schools, after which schools were purposively selected to capture variations in household linguistic backgrounds and socio-economic profiles. Proportionate stratified random sampling was then used to select participating students. Data were collected using the Researcher-Administered English Proficiency Test (REPT), which assessed reading, writing, listening and speaking skills through adapted WAEC and NECO items, and the Socio-Structural Factors Questionnaire (SSFQ), which measured spatial location, household linguistic background and socio-economic stratification. Both instruments were subjected to face and content validation by experts in applied linguistics and educational sociology. The reliability of the REPT was established using the Kuder-Richardson Formula 20 (KR-20), while Cronbach's alpha was used to determine the internal consistency of the SSFQ, with coefficients of 0.70 or higher considered acceptable. Following approval from school authorities, the REPT and SSFQ were administered sequentially using unique identifiers to ensure anonymity while matching responses. Data were analysed using descriptive statistics and inferential statistics. A one-sample *t*-test was used to test Null Hypothesis 1, which examined whether the mean English proficiency score differed significantly from the established benchmark of 40%. One-way analysis of variance (ANOVA) was employed to test Null Hypotheses 2–4, which examined differences in English proficiency based on spatial location, household linguistic background and socio-economic stratification, respectively. Two-way factorial ANOVA was used to test Null Hypothesis 5, which examined the interaction effects among pairs of the three socio-structural factors on English proficiency, while three-way factorial ANOVA was used to test Null Hypothesis 6, which examined the combined interaction effect of spatial location, household linguistic background and socio-economic stratification on English proficiency. All hypotheses were tested at the 0.05 level of significance.

5. Presentation of Results

Null Hypothesis One: There are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria.

Table 1: One-Sample *t*-Test Comparing English Proficiency Scores with the 40% Benchmark

Variable	N	Mean $\pm$ SD	Benchmark	<i>T</i>	df	<i>P</i>
English Proficiency Score	900	8.92 $\pm$ 3.59	40% (8.00)	7.728	899	< .001

Note. Benchmark = 40% (equivalent to 8.00 marks on the 20-mark Research English Proficiency Test [REPT]); SD = standard deviation; *df* = degrees of freedom.

The one-sample *t*-test presented in Table 1 reveals a statistically significant variation in English proficiency scores between the observed performance of secondary school students in Benue State and the expected minimum standard of 40% (8.00 marks), $t(899) = 7.728$, $p < .001$. Therefore, the null hypothesis that there are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria is rejected.

Null Hypothesis Two: There are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria

Table 2: One-Way ANOVA Analysis of Spatial Variations in English Proficiency Scores among Secondary School Students in Benue State

Spatial Location	N	Mean $\pm$ SD	<i>F</i>	<i>Df</i>	<i>P</i>
Urban	537	10.94 $\pm$ 2.75	787.801	(1, 898)	< .001
Rural	363	5.94 $\pm$ 2.42			

Note. SD = standard deviation. Levene's test indicated that the assumption of homogeneity of variances was met, $F(1, 898) = 1.310$, $p = .253$.

The results of the one-way analysis of variance (ANOVA) presented in Table 2 reveal a statistically significant spatial variation in English proficiency scores among secondary school students in Benue State, $F(1, 898) = 787.801$, $p < .001$. Urban students ($M = 10.94$, $SD = 2.75$) obtained significantly higher English proficiency scores than their rural counterparts ($M = 5.94$, $SD = 2.42$). Prior to the ANOVA, Levene's test confirmed that the assumption of homogeneity of variances was satisfied, $F(1, 898) = 1.310$, $p = .253$. Therefore, the null hypothesis stating that there are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria, is rejected.

Null Hypothesis Three: There are no significant household linguistic variations English proficiency scores among secondary school students in Benue State, Nigeria.

Table 3: One-Way ANOVA of Household Linguistic Variations in English Proficiency Scores among Secondary School Students in Benue State

Household Linguistic Background	N	Mean $\pm$ SD	<i>F</i>	df	<i>P</i>
Mother Tongue only	276	7.70 $\pm$ 3.49	29.121	2, 882	< .001
English and Mother Tongue	319	9.26 $\pm$ 3.28			
English only	305	9.69 $\pm$ 3.70			

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure. Partial Eta Squared (η^2) for household linguistic background = .062.

The results of the one-way analysis of variance (ANOVA) presented in Table 3 reveal a statistically significant difference in English proficiency scores among secondary school students based on household linguistic background in Benue State, Nigeria, $F(2, 882) = 29.121$, $p < .001$. Bonferroni post hoc comparisons indicate that students from English-only households have significantly higher English proficiency scores than those from mother tongue-only households ($p = .005$) and those from English and mother tongue households ($p < .001$). Similarly, students from mother tongue-only households differ significantly from those from English and mother tongue households ($p < .001$). Therefore, the null hypothesis stating that there are no significant household linguistic variations in English proficiency scores among secondary school students in Benue State, Nigeria is rejected.

Null Hypothesis Four: There are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria.

Table 4: One-Way ANOVA of Socio-Economic Variations in English Proficiency Scores among Secondary School Students in Benue State

Socio-Economic Stratification	N	Mean $\pm$ SD	F	df	P
Low	248	7.57 $\pm$ 3.67	7.034	2, 882	.001
Middle	241	9.76 $\pm$ 3.49			
High	411	9.26 $\pm$ 3.38			

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure. Partial Eta Squared (η^2) for socio-economic stratification = .016.

The results of the one-way analysis of variance (ANOVA) presented in Table 4 reveal a statistically significant difference in English proficiency scores among secondary school students based on socio-economic stratification in Benue State, Nigeria, $F(2, 882) = 7.034, p = .001$. Bonferroni post hoc comparisons show that students in the low socio-economic group differ significantly from those in the high socio-economic group ($p = .001$), while students in the middle socio-economic group also differ significantly from those in the high socio-economic group ($p = .042$). However, there is no significant difference between the low and middle socio-economic groups ($p = 1.000$). Therefore, the null hypothesis stating that there are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria is rejected.

Null Hypothesis Five: There are no significant two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across:

Spatial Location $\times$ Socio-economic Stratification;

Spatial Location $\times$ Household Linguistic Background;

Socio-economic Stratification $\times$ Household Linguistic Background.

Table 5: Two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location, socio-economic stratification and household linguistic background

Source of Interactive Variations	F	df	P	Partial Eta Squared (η^2)
Spatial Location $\times$ Socio-economic Stratification	10.003	2, 882	<.001	.022
Spatial Location $\times$ Household Linguistic Background	4.466	2, 882	.012	.010

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure.

The results of the two-way analysis of variance (ANOVA) presented in Table 5 reveal that there were statistically significant interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location and socio-economic stratification, $F(2, 882) = 10.003, p < .001$; spatial location and household linguistic background, $F(2, 882) = 4.466, p = .012$; and socio-economic stratification and household linguistic background, $F(4, 882) = 4.618, p = .001$. Therefore, the null hypothesis which states that there are no significant two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location $\times$ socio-economic stratification, spatial location $\times$ household linguistic background and socio-economic stratification $\times$ household linguistic background is rejected. This indicates that the combined effects of these social factors significantly influence variations in students' English proficiency scores.

Null Hypothesis Six: There are no significant three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria.

Table 6: Th Three-way interactive variations in English proficiency scores from the combined effects of socio-economic stratification, spatial location and household linguistic background among secondary school students in Benue State, Nigeria

Source of Interactive Variations	df	F	p-value	Partial η^2
Socio-economic Stratification $\times$ Spatial Location $\times$ Household Linguistic Background	4, 882	22.907	< .001	.094

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure.

The results of the three-way analysis of variance (ANOVA) presented in Table 6 reveal that there was a statistically significant interactive variation in English proficiency scores from the combined effects of socio-economic stratification, spatial location and household linguistic background among secondary school students in Benue State, Nigeria, $F(4, 882) =$

22.907, $p < .001$. Therefore, the null hypothesis which states that there are no significant three-way interactive variations in English proficiency scores from the combined effects of socio-economic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria is rejected. This indicates that the combined influence

of socio-economic stratification, spatial location and household linguistic background significantly accounts for variations in students' English proficiency scores.

6. Discussion of Findings

To begin with, the one-sample *t*-test indicated that the mean English proficiency score (8.92, *SD* = 3.59) was statistically significantly higher than the 40% benchmark (8.00), $t(899) = 7.728, p < .001$. However, the effect size of 0.26 indicates a small practical effect, demonstrating the important distinction between statistical and practical significance. Although the difference was statistically significant, its magnitude was modest: students scored only 0.92 marks above the benchmark on the 20-mark test, equivalent to approximately 4.6 percentage points (44.6% compared with the 40% benchmark). The large sample size ($N = 900$) was thus sufficient to detect a significant difference, but the practical improvement over the minimum standard was relatively small. This modest aggregate margin is consistent with the disaggregated findings discussed below: rural students (29.7%) fell well below the benchmark while urban students (54.7%) exceeded it comfortably, indicating that the reassuring state-wide average conceals substantial socio-structural disparity, in line with concerns that pooled statistics can obscure authentic proficiency differences (Fleckenstein, Leucht, Pant & Köller, 2016).

Turning to the individual socio-structural factors, spatial location produced the largest effect of any single factor, $F(1, 898) = 787.801, p < .001$, with urban students (54.7%) far outperforming rural students (29.7%). This mirrors urban-rural gaps reported elsewhere in Nigeria (Adeyeye, 2017; Alokun & Arijesuyo, 2013) and internationally (Azam, Chin & Prakash, 2013; Taylor, 2009), and is consistent with the resource and staffing disadvantages of rural schools described by Obiakor (2024).

Similarly, household linguistic background followed a clear, theoretically predicted gradient: English-only (48.5%) > English-and-mother-tongue (46.3%) > mother-tongue-only (38.5%), $F(2, 882) = 29.121, p < .001, \eta^2 = .062$, with all pairwise differences significant. This supports Cummins's (1979) interdependence hypothesis and Bamgbose's (2011) account of English's greater domestic role in urban Nigerian households, and parallels comparable effects in Ghana (Owu-Ewie, 2006) and Kenya (Hungu, Njagi, Wekulo & Ngware, 2018). The Idoma and Tiv phonological interference documented by Isa and Yakubu (2023), Shaahu and Okwudishu (2015) and

Sebele (n.d.) offers a plausible linguistic mechanism, compounded by the policy transition from mother-tongue to English-medium instruction (Federal Republic of Nigeria, 2013).

By comparison, socio-economic stratification was significant but small in effect, $F(2, 882) = 7.034, p = .001, \eta^2 = .016$, and departed from a strictly linear gradient: the middle-SES group (48.8%) scored significantly higher than the high-SES group (46.3%, $p = .042$), while low- and middle-SES groups did not differ significantly ($p = 1.000$). This non-linearity qualifies the broadly linear SES gradients reported elsewhere (Schwab & Lew-Williams, 2016; Adewale, 2012) but is consistent with evidence that the SES-achievement relationship need not be linear (Caro, McDonald & Willms, 2009), and may also reflect the REPT's design to capture authentic competence rather than the coached, examination-style performance associated with higher-SES households (Gitsaki & Coombe, 2016).

Beyond these main effects, all three two-way interactions were significant (spatial location $\times$ socio-economic stratification, $F(2, 882) = 10.003, p < .001$; spatial location $\times$ household linguistic background, $F(2, 882) = 4.466, p = .012$; socio-economic stratification $\times$ household linguistic background, $F(4, 882) = 4.618, p = .001$), as was the three-way interaction, $F(4, 882) = 22.907, p < .001, \eta^2 = .094$ – a larger effect than any two-way term alone. This confirms the variationist premise that social categories condition rather than merely add to one another's effects (Labov, 1972; Eckert, 2000; Tagliamonte, 2012): disadvantage compounds most sharply for rural, mother-tongue-dominant, low-income students.

Taken together, these findings demonstrate that English proficiency in Benue State is systematically stratified by, and shaped through the intersection of, spatial, linguistic and economic structures, with effect sizes ranging from large (spatial location) to small (socio-economic stratification and the overall benchmark comparison).

7. Conclusion

This study set out to establish an independent, non-examination baseline of English proficiency among SSS II students in Benue State and to determine how far this baseline is shaped by spatial location, household linguistic background and socio-economic stratification, singly and in combination. The evidence confirms that English proficiency in the state is not a uniform outcome but a socially stratified one: the overall mean exceeded the 40% national minimum,

but only marginally so, and this modest margin conceals a rural sub-population performing well below standard alongside an urban sub-population performing comfortably above it. Spatial location produced by far the largest effect of any single factor, household linguistic background produced a clear and theoretically consistent gradient, and socio-economic stratification, while significant, departed from a strictly linear pattern. All three factors interacted significantly, and the three-way interaction explained more variance than any two-way term alone, confirming that disadvantage in this context compounds rather than merely accumulates. These findings substantiate the Variationist Sociolinguistics framework guiding the study: proficiency outcomes covary systematically with the social structures in which learners are embedded, and any response that treats Benue State's students as a homogeneous population risks addressing an average that describes almost no one precisely.

8. Recommendations

Based on these findings, the study recommends that:

- Government and school authorities prioritise the deployment of qualified English teachers and instructional resources to rural schools, given the scale of the spatial gap identified.
- Schools serving predominantly mother-tongue-dominant communities (Tiv, Idoma, Igede) build in structured English literacy support that anticipates the specific phonological transfer difficulties documented for these languages, rather than assuming uniform readiness for English-medium instruction.
- Community and school programmes encourage greater use of English in the home, particularly in rural and mother-tongue-only households, through parental literacy initiatives and English-language community media, without displacing indigenous languages.
- Interventions addressing socio-economic disadvantage be designed with attention to the non-linear pattern observed here, testing rather than assuming that higher household income alone raises English proficiency.
- Given the significant interaction effects, interventions target specific socio-structural configurations, such as rural, mother-tongue-dominant, low-income learners, rather than applying single-factor measures uniformly across the state.
- WAEC, NECO and state examination bodies consider incorporating researcher-administered, non-high-stakes diagnostic assessments into the SSS II curriculum, to track authentic proficiency ahead of final examinations and reduce reliance on coaching-inflated indicators.
- Future research adopt qualitative or mixed-methods designs to probe the unexpected middle-SES pattern, and extend the REPT and SSFQ instruments to other Nigerian states to test the generalisability of these socio-structural effects.

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Emotional Attachment and Mutual Respect as Correlates of Marital Satisfaction Among Married Persons in Edo State, Nigeria

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Abstract. Marriage requires commitment, emotional connection, and mutual respect to foster a satisfying relationship that benefits couples, their children, and society. Rising marital conflicts and separations in Edo State, Nigeria, suggest that many couples may lack these essential qualities. Although previous studies have explored emotional attachment and marital satisfaction, limited attention has been given to the combined roles of spousal emotional attachment and mutual respect. This study investigated the relationships among spousal emotional attachment, mutual respect, and marital satisfaction among married persons in Edo State. Using a correlational research design, data were collected from 450 married individuals with three standardized instruments: the Couple Satisfaction Index (CSI), the Marital Attachment Scale (MAS), and the Mutual Respect Scale (MRS). Data were analyzed using regression analysis in SPSS. The findings revealed significant positive relationships between spousal emotional attachment, mutual respect, and marital satisfaction, leading to the rejection of the null hypotheses. Specifically, stronger emotional attachment and greater mutual respect were associated with higher levels of marital satisfaction. The study concludes that fostering secure emotional attachment and mutual respect enhances marital quality, promotes satisfying dyadic relationships, and contributes to more stable and fulfilling marriages.

Keywords: Emotional attachment, Mutual respect, Marital satisfaction, Married persons, Edo State.

1. Introduction

Marriage, as it were, is a covenantal relationship entered into by a man and a woman. This covenant gives solid base and secures a master plan for spouses' commitment to one another. Marriage indeed, forms an integral part of our existence, regardless of creed,

ethnicity, society and cultural beliefs. Marriage serves as a social security for all the individuals since through the institution of marital relationship, society receives security of emotional needs and cares, and its subsistence and continuity is preserved. According to Anyanmene, et al (2020), people enter into dyadic relationship seeking pleasure, happiness and peace of mind, which they derive from mutual satisfaction, trust, understanding, the fulfillment of social obligations, and the enrichment of their personality development. Consequently, the marital relationship is often viewed as a social necessity that warrants preservation. The social necessity is rooted in the fact that, marriage is the primary means by which families are established and the family is considered the fundamental unit of human society (Angel, 2017). While people make choices to marry, they intend to live happily ever then as couple. They want to have a blissful, happy, and satisfactory dyadic relationship. A healthy dyadic relationship is demonstrated to be salutary, effectively satisfying companionship, sexual, love and belongingness needs. In essence, marital satisfaction is the state where married partners experience overall contentment and happiness with their relationship. Marital satisfaction is a rudimentary variable for a high-quality relationship and total well-being among married individuals in Edo State coupling spouses. It is depicted by the skill to navigate relationship challenges together, emotional fulfillment, and mutual understanding.

1.1 Objective study

The general objective of this study was to determine the relationship between spousal emotional attachment, mutual respect and marital satisfaction among married people in Edo State. Specifically, the study sought to:

- Examine the significant relationship between spouses' emotional attachment and marital

satisfaction among married persons in Edo State.

- Ascertain the significant relationship between spouses' mutual respect and marital satisfaction among married persons in Edo State.
- Determine significant relationship between spouses' emotional attachment, mutual respect and marital satisfaction when considered together among married persons in Edo State.

1.2 Research Hypotheses

The following hypotheses were formulated to guide the study:

- There is no significant relationship between spouses' emotional attachment and marital satisfaction among married persons in Edo State.
- There is no significant relationship between spouses' mutual respect and marital satisfaction among married persons in Edo State.
- There is no significant relationship between spouses' emotional attachment and mutual respect when combined, and marital satisfaction among married persons in Edo State.

2. Literature Review

2.1 Marital Satisfaction

Marital satisfaction is obviously crucial to the healthiness and quality of the marriage. Marital satisfaction seems to be a fundamental factor that play an important role in marital sustainability and the stability of the family system. Ghaibi et al (2022) explained it as a personal feeling of enjoyment, happiness, and satisfaction, that a couple experiences when they have almost all their expectations achieved in a dyadic relationship. A dyadic relationship is considered enjoyable when it fulfills needs for fondness, affection, security and belongingness. Marital satisfaction is generally described as the state in which married couples are consistently pleased and happy with their marital relationship (Azizi et al. 2023; Angel, 2016; Onyekuru et al. 2017). It is characterized by mutual interests, care, meeting each needs, acceptance and understanding. A satisfactory marriage could be viewed as a relationship where spouses fundamentally uphold their own morals and principles, share common interests, intentionally committed to one another, and resolved to cleave together regardless

of circumstances, and work together. Researchers highlight various factors influencing marital satisfaction, including parenthood, counselling, patience, perseverance, bond, sexual satisfaction, respect, humility, achievements of individual and collective goals among others (Angel, 2016; Zarch, et al. 2014; Ilayas et al, 2014). Abiodun et al (2022) define it as the physical, emotional and mental state among couples marked by an overall feeling of happiness and contentment with their marriage. Other Scholars view it as a multidimensional construct encompassing emotional intimacy, communication, trust, mutual respect, and sexual satisfaction (Fincham & Beach, as cited in Abiodun et al., 2022). High levels of marital satisfaction are frequently associated with reduced stress and depression, greater life satisfaction, and more cohesive family functioning (Etele et al., 2023; Tumin et al., 2015). Marital satisfaction is a critical element for general well-being and influences both the individuals and the relationship. It encompasses various aspects of a marriage including communication, intimacy, trust, emotional support, sexual satisfaction and overall sense of partnership and support within the marriage. Marriage relies on various phenomenal to be satisfactory, such as fidelity, love, time, friendship, understanding, honesty, and loyalty. Satisfactory relationships offer numerous benefits, such as improved physical and mental health for both couples and their children, and increased resilience when confronting life problems. The continuance of the dyadic relationship, which serves important individual and societal functions, hinges on the mutual fulfilment of the couples biological, social, and psychological needs and motives (Zhumgalbekov et al 2023). Though marriage was instituted for spouses to catch fun and satisfy one another, it has become worrisome that many marriages in our society have either comatose or on the verge of breaking up consequent of marital dissatisfaction.

Marital dissatisfaction is explained as a state of unhappiness or failure to be satisfied with spouse's conduct or adherence to marital vows. According to Finchman, et al (2021), marital dissatisfaction includes an overall feeling of negativity in the marriage, comprising emotions such as tension, resentment, and irritation disagreement, conflicts, and unmet expectations. Marital dissatisfaction has been associated with "communication breakdowns, financial stress, lack of intimacy, and overall relational decline" (Lares et al, 2019; Balderrama in Uche, et al, 2025). Dissatisfied marriages frequently result in extra marital affairs, conflicts, separation and divorce. While numerous factors could foster marital satisfaction, emotional attachment as well as mutual respect among spouses are worthy of investigation

because of their vital roles in enhancing blissful and intimate relationship.

2.2 Emotional Attachment

Attachment is viewed as a lifelong paradigm that originates at birth, develops in early childhood, persists into later ages, and involves the feedback and attachment styles that the individual forms towards significant figures (Bowlby, in Gider et al, 2024). Consequently, attachment has a broad scope, encompassing emotional bonds with parents, siblings, friends, and romantic partners. When an attachment partner is perceived as inaccessible or unresponsive, compelling feelings of fears, anger, and sadness can emerge. The seeking and maintaining of contact with partners is considered the primary motivating principle in relationships and it serves as an innate survival mechanism, offering a safe haven and a secure base within a potentially threatening world (Bowlby, in Gider et al, 2024). Bowlby theorized that when attachment security is compromised in marriage, the typical response progression begins with protest and anger, followed by clinging/seeking behaviour, which may then lead to depression and despair. If the spouse refuse to respond, detachment or divorce may occur. Pietromonaco, et al (2021) asserted that emotional attachment in dyadic relationship explain the all-encompassing psychological bond that cleaves spouses, shaping how they relate, communicate, as well as assist each other throughout their marital life. Attachment researchers such as Hazan et al and Bartholomew et al in Gider et al (2024) classified adult attachment into four main styles: secure emotional attachment, anxious-preoccupied attachment, dismissive-avoidant attachment and fearful-avoidant attachment. The focus of this study is on secure emotional attachment. According to Mikulincer et al (2023), secure emotional attached partners normally feel comfortable with intimacy and generally warm, loving and responsive partners. In such marriage, spouses are always interested in the desires of each other, while they equally provide and receive solace during the period of sadness as well as maintain emotional stability relationship even in conflicts. Johnson, cited in Jesuorobo, et al (2019), noted that marriage characterized with secure attachment provides partners with a safe haven and the confidence that someone has their back as well as the boldness to delve into the world. Gottman (1989) observed that emotionally secure spouses express open, honest communication characterized by emotional attunement and responsiveness and moreover, they approach disputes as challenges to solve together rather than threat to relationship. Partners emotionally secured, is said to enjoy satisfying and connected

sexual experiences that enhance emotional closeness (Mikulincer et al 2023). Secure attachment in marriage can be achieved through consistent, positive interactions practices such as; spouses spending quality time together, habitual expression of appreciation as well as promptly resolving conflicts. In this present generation of relationship dysfunction, nurturing an emotionally secure attachment in marriage could be the prize couples can pay for long lasting satisfying marital relationship. Research studies by Johnson et al 2022; Gottman 1989; Özabacı 2019; Celik 2018; Bedair et al 2020; Ein-Dor et al 2022; Chen et al 2023; Zhang et al 2024; Gider et al 2024; Pietromonaco et al (2021), have demonstrated that emotionally secure attached dyadic relationship enhances marital bliss and satisfaction however, their studies were carried out in foreign countries hence, the need for a local investigation.

2.3 Mutual Respect

Another phenomenon worthy of consideration as a vital ingredient for a lasting and satisfying dyadic relationship, could be spousal mutual respect. It is commonly observed that, in the beginning of marital relationship, partners do have great admiration and adoration for each other, as well as always engulf in a blistering fervent emotion that can make them seemingly incapable of finding any fault with one another. They often call each other sweet names, overlook individual weaknesses and shower respect on each other very often. Over time, with much closeness without boundaries, their flaws begin to reveal, subsequently, they may start taking each other for granted and thereby lose mutual respect. The popular saying “familiarity breeds contempt” has found its way into the hitherto respectful relationship.

In the case of marital satisfaction, researchers have showed that mutual respect is a crucial factor capable of enhancing satisfying marriage (Amirmovin et al, 2018). Perel (2020) define respect as the daily practice of seeing a spouse as a separate evolving person rather than a static role. As Gottman et al (2022) puts it, “mutual respect in marriage is more than politeness; it is fundamentally valuing your partner humanity, individuality, and contributions to the relationship. Respect in marriage is not passive rather, it is an active practice in and outside the home, it is a daily resolution make by partners to reverence the inherent worth of each other”. Psychology Today (2019) opined that marital relationship driven by mutual respect overcomes life challenges and provide blissful atmosphere for the partners. Sexes (2024) explained mutual respect in marriage as “a two-way street in which each person in the relationship values,

acknowledges, and perceives the feelings and opinions of the other person". Katharine McPhee (cited in Johnson, 2020) emphasized that, mutual respect strengthens daily efforts to maintain relationship and sustain marital union, and the lack thereof is a crisis factor capable of destabilizing even the strongest marital foundation. Religious texts, such as the Holy Bible admonish couples: wives should respect their husbands, who, in turn should love their wives as they would their own bodies. It is logical to assert that these conditions are mutually dependent: a husband may struggle to continue loving a wife who lacks respect for him or his role, just as a wife would struggle to respect a husband who does not love her. Respect and love are reciprocal variables in every marital union; thus, spouses are obligated to provide both. Failure to do so can fuel relationship disharmony and discontent. Mutual respect forms the base for a healthy and thriving marriage where both partners feel valued and heard. Arshad et al cited in Jesuorobo et al (2019), proposed two elements in marriage: the bodily (sexual desire, affections) and the divine (love, respect, adore etc.). Towards the end of life both elements are coming closer and closer and at a particular point of time the latter aspect (love, respect, adoration). They suggest that as life progresses, these elements converge, with the latter (love, respect, adoration) becoming more prominent. Markman et al (2010) asserted that mutual respect entails recognizing and valuing one's spouse as an individual, treating spouse with dignity and consideration as well as acknowledging partner's unique qualities. In the opinion of Perel (2020), mutual respect is "the daily practice of seeing one's partner as a separate, evolving person" rather than a static role. Horesh et al (2020) found that marriages with high mutual respect had lower rates of pandemic related conflict due to better emotional attunement. Israel (2020) also observed that respect for differing viewpoints buffers marital strain in political divided households. This goes to suggest that spouses that committedly express mutual respect enjoys tolerance, understanding and compromise. Research studies by Laner et al (2016), Zimmer-Gembeck et al (2020), & Kachadourian et al (2018) found out that mutual respect is a vital variable for marital satisfaction. Existing literature highlights the importance of emotional bonds and mutual respect as distinct variable, in sustaining lasting marital satisfaction. Some investigate attachment styles with other factors (such as parenting stress (Feeney, et al (2023), finance (Dew et al (2022). communication patterns (Overall, et al. (2023), health (Pietromonaco, et al. (2023), personality traits (Malouff, et al (2023), and cultural gender (Zhang, et al (2024). However, combined relationship of spousal emotional attachment and

mutual respect on marital satisfaction, remains underexplored.

This study seeks to examine the synergistic relationship between emotional attachment, mutual respect on marital satisfaction among married persons in Edo State, thereby providing empirical evidence on how these dynamics contribute to a fulfilling marriage within the specific population. By investigating these correlates, the research aims to offer valuable insights for couples, therapists, and relationship counsellors seeking to enhance marital satisfaction and stability

2.4 Justification of the Study

Society existence is unequivocally based on the continuity of marriage institution. Marital relationship is consummated to provide spouses the opportunity for the secured and protected satisfaction needs for sexual expression, companionship, and affection. It encompasses the most intimate type of emotional relationship between two individuals. Marital satisfaction is a necessary determinant of relationship stability and individual well-being. However, many couples experience declining dyadic satisfaction over time. The researchers observed that most married people seem to be unhappy because their relationships are crises-ridden characterized with frequent disagreements, which some time degenerate to separation or divorce. Moreover, researchers have reported that "married persons in Edo State go through incessant quarrelling, maltreatment, emotional stress, communication problem, financial mismanagement, domestic violence, and sexual dissatisfaction, resulting to painful and unsatisfactory dyadic relationship" (Igbinedion, 2020; Aghahowa, et al 2023; Okhawere, et al 2021). Lack of marital satisfaction Can result in depression, anxiety, sexual problems, aggressiveness, sleep disturbances, decreased intimacy, communication breakdown, frustration. and unhappiness. It can also affect couples physical and mental health and has been linked to increased level of stress. Dissatisfied relationship will obviously fail to meet the expectations of the people as what a successful home should be. Dissatisfied couples could create a home that is more like sources of irritations, discomforts and misgivings. The alleviation of marital dissatisfaction is important because of the serious negative consequences associated with dissatisfaction as a predisposing risk factor for many psychological disorders like mood disorders, anxiety disorder, alcohol abuse, and psychoses. According to Jesuorobo (2023), a marriage that is experiencing dissatisfaction will invariably create hostile environment and uncomfortable home for the children to efficiently and successfully develop

emotionally, socially and psychologically. Conversely, research shows that children raised in a conducive environment where partners are joyful, are more likely to excel in school and other aspects of life including their own future marital lives (Omorogiuwa, et al, 2016). Understanding the correlation between emotional attachment, mutual respect, and marital satisfaction could provide valuable insights for couples, therapists, and marriage counselors seeking to improve relationship quality. While prior research has identified various factors influencing marital quality, the specific roles of emotional attachment and mutual respect remain underexplored, particularly in how they interact to sustain long-term marital happiness in Edo State. Emotional attachment, which fosters intimacy and security, and mutual respect, which promotes equality and constructive conflict resolution, are both necessary to strengthen marital bonds. However, there is limited empirical evidence on the extent to which these two factors jointly contribute to marital satisfaction. Therefore, this study is carried out to investigate significant relationship between spouses' emotional attachment, mutual respect, and marital satisfaction among married persons in Benin City, Edo State.

3. Research Methodology

The method applied by the researchers was a correlational research design. Uche et al (2025) asserted that a research correlational design shows the direction and extent of the relationship between two or more variables. This design was considered fit because the study aim was to determine the relationship between spousal emotional attachment, mutual respect, and marital satisfaction. The design allows for the statistical evaluation of the direction and magnitude of relationships between variables in their natural setting.

3.1 Population / Sample Size

Study population consisted married persons in Edo State. The State has a large population of mixed multitude and given the lack of a reliable census for the actual number of married persons, as some individuals marry through traditional method and as such, do not register their marriage, the population was considered indefinite. Consequently, a convenience sampling technique was used to select the study sample. Efforts were made to ensure diversified and extended coverage of the study area through purposive random sampling of three Local Government Areas (LGAs) in Benin City (Oredo, Ikpoba-okha, and Egor) due to purposely selected because they are most populated among others. A sample size of 450

respondents was drawn, with 150 respondents selected from each of the three Local Government Area, comprised of 200 males and 250 females.

3.2 Variables under Study

Three variables were examined in this current study. The dependent variable was marital satisfaction, while independent variables were marital emotional attachment, and mutual respect in marriage

3.3 Delimitation of the Study

The research findings are limited to the married persons residing in Benin City, the capital city of Edo State. Also, the results are restricted on the independent variables and dependent variable assessed by the researchers.

3.4 Limitations

The study has several limitations:

Marital satisfaction was measured using a single-item scale (or a scale adapted from national data sets often limited to a single item), raising concerns regarding its construct validity.

The study did not incorporate the marital dyad. Questions concerning marital satisfaction, spousal emotional attachment and mutual respect were assessed with only one individual in a marriage, not both. This limits the understanding of the mutual influence between spouses.

The data collected was limited to Benin City (three LGAs), which restricts the generalizability of the findings to the entire Edo State.

The truthfulness of the findings is dependent upon the honesty of the respondents.

3.5 Instrument Used

Three standardized instruments were used for data collection. The first one was Couple Satisfactory Index (CSI) originally spell out by Funk et al (2007), the CSI was adapted to assess relationship satisfaction across multiple domains. It consists of 16 items rated on a 4-point Likert scale (1=Strongly Disagreed to 4=Strongly Agreed). The scale measures the respondent's key dimensions of marital satisfaction such as general marital satisfaction, meeting of spouse's needs, fulfilled expectations, marital affection, appreciation, communication, shared goals, and intimacy. The second scale was Marital

Attachment Scale (MAS) formulated by Bouthillier et al (2002). The MAS which contained 12 items was adapted to measure emotional accessibility, comforting behaviours and secure base in marriage. Responses were recorded on a 4-point Likert scale (1=Strongly Disagreed to 4= Strongly Agreed). The scale typically assessed the respondent's emotionally attachment to spouse, spouse responsive to emotional needs, understanding of one's spouse, and sharing of deepest feeling with spouse. While the third scale was Mutual Respect Scale (MRS) originally developed by Hendrick et al (2006). The MRS was (8 items) was adapted to assess respect in close relationships. Items are rated on a 4-point Likert scale ranging (1=Strongly Disagreed to 4=Strongly Agreed). The scale contained such issues mutual respect in marriage, respect for spouse's opinions, acknowledgement of each other's strengths, listening to each carefully, partner's worthiness, appreciation for each other's contributions, and honour for each other's boundaries. Content validity was established by three experts from the Department of Educational Evaluation and Counselling Psychology, University of Benin. They

reviewed the items and made appropriate corrections. Suggestions and corrections made by them were included into the instrument. These include clarity of terms, grammatical structures, as well as capability to measure the intended variable. They looked at whether the items were adequate, well-constructed and arranged, and related to variables of the study. Internal Consistency Reliability was established using a pilot sample of 50 spouses outside the study sample. The data was analyzed using the Cronbach Alpha Statistics, yielded a reliability coefficient of: 0.86 for the couple satisfaction index, 0.87 for the marital attachment scale, and 0.88 for the marital respect scale. The researchers administered the questionnaires to married persons in churches, mosques, market centers, offices and social gatherings where large population of married persons are always found. Respondents were assured of confidentiality and informed consent was obtained. Regression Analysis was used to test the hypotheses. Hypotheses examined at the 0.05 level of significance. Statistical analysis was carried out with the use of Statistical Package for Social Sciences (SPSS).

4. Results

Hypothesis One: Spouse emotional attachment does not significantly influence marital satisfaction among married persons in Benin City, Edo state

To test this hypothesis, regression analysis was performed using data from the two scales

Table 1: Regression summary table on the influence of spouse emotional attachment on marital satisfaction

Model	Unstandardized Coefficient		Standardized Coefficient		t	Sig.
	β	Std. Error	Beta			
Constant	4.483	1.552			2.888	.004
Total on marital emotional attachment scale (MEAS)	.932	.023	.887		40.641	.000

Dependent Variable: Couple satisfaction index (CSI)

Independent Variable: Marital; emotional attachment

Model Summary: R = .887, R² = .787, Adj. R² = .786, Std. Error = 1.4470

F (1, 448) = 1651.695, P < .000 < 0.05

Table 1 above showed that marital emotional attachment significantly influences marital satisfaction among couples in Benin city, Edo state (Beta = .887, P < 0.05). Based on this, the null hypothesis is rejected. By implications, marital emotional attachment had significant positive influence on couple marital satisfaction in Benin city, Edo state. The adjusted R² value of .786 indicates that 78.6% variation on marital satisfaction of couples can be explained by marital emotional attachment.

Hypothesis Two: Spouse mutual respect does not significantly influence marital satisfaction among married persons in Benin City, Edo state

To test this hypothesis, regression analysis was performed using data obtained from the two scales

Table 2: Regression summary table on the influence of spouse mutual respect on marital satisfaction

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	β	Std. Error	Beta		
Constant	7.230	1.922		3.761	.000
Total on mutual respect scale (MRS)	.895	.029	.829	31.392	.000

Dependent Variable: Couple satisfaction index (CSI)

Independent Variable: Marita; emotional attachment

Model Summary: R = .829, R² = .687, Adj. R² = .687, Std. Error = 1.748

F (1, 448) = 985.480, P < .000 < 0.05

Table 2 above showed that mutual respect significantly influences marital satisfaction among couples in Benin city, Edo state (Beta = .829, P < 0.05). Based on this, the null hypothesis is rejected. By implications, spouse mutual respect had significant positive influence on couple marital satisfaction in Benin city, Edo state. The adjusted R² value of .687 indicates that 68.7% variation on couple mutual respect of couples can be explained by spouse mutual respect.

Hypothesis Three: Combined spouse emotional attachment and mutual respect does not significantly influence marital satisfaction among married people in Benin city, Edo state

To test this hypothesis, regression analysis was performed using data obtained from the three scales

Table 3: Regression summary table on the combined influence spouse emotional attachment and mutual respect on marital satisfaction

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	β	Std. Error	Beta		
Constant	3.518	1.601		2.198	.028
Total on marital emotional attachment scale (MEAS)	.816	.056	.776	14.681	.000
Total on mutual respect scale (MRS)	.131	.057	.122	2.305	.022

Dependent Variable: Couple satisfaction index (CSI)

Independent Variable: spouse emotional attachment and mutual respect

Model Summary: R = .888, R² = .789, Adj. R² = .788, Std. Error = 1.43

F (1, 2,447) = 836.457, P < .000 < 0.05

Table 3 above showed that the combined spouse emotional attachment and mutual respect have significantly positive influence on marital satisfaction among couples in Benin City, Edo state (Beta = .776 and .122 for spouse emotional attachment and mutual respect respectively, P < 0.05). Based on this, the null hypothesis is rejected. By implications, the combined spouse emotional attachment and mutual respect have significant positive influence on couple marital satisfaction in Benin city, Edo state. The combined adjusted R² value of .788 indicates that 78.8% variation on couple marital satisfaction can be explained by the combination of spouse emotional attachment and mutual respect. From the analysis, it is clear that the combination of the two independent variables has a higher influence on couple marital satisfaction.

5. Discussion

The first major finding of this study established a significant positive relationship between spousal marital attachment and marital satisfaction. The analysis yielded an adjustment coefficient of determination (Adj. R²) of .786, indicating that approximately 78.6% of the variance in marital satisfaction can be accounted for by the level of spousal emotional attachment. This suggests that higher scores in emotional attachment correspond with a notable increase in marital satisfaction scores, and vice-versa. This implies that most spouses whose scores are high on marital attachment, earn high scores on marital satisfaction, while some whose scores are low on marital attachment, earn low score on marital satisfaction. The application of linear regression analysis confirmed this relationship as statistically significant (p= 0.000, which is less than the 0.05 level of significance). This result implies that the stronger the psychological bond and security between

spouses, the greater their reported satisfaction with the marriage. This outcome is theoretically aligned with attachment theory, which posits that, seeking and maintaining emotional contact is a primary motivating principle in relationships, serving as an innate survival mechanism that, provides the couple with a safe haven and desirable joy. Moreover, it is generally observed that, emotional attachment in marriage culminates to the all-encompassing psychological bond that cleaves spouses, shaping how they relate, communicate, as well as assist each other to enjoy a quality. The current result corroborates the findings of Johnson et al (2022), Özabacı (2019), Celik (2018), Bedair et al (2020), Ein-Dor et al (2022), Chen et al (2023), Zhang et al (2024), Gider (2024), and Pietromonaco et al (2021), who revealed that emotionally secure attachment enhances marital bliss and satisfaction across diverse geographical contexts.

The second finding of the study also indicated a significant positive relationship between marital mutual respect and marital satisfaction. The beta coefficient (β) of 0.829 (with $P < 0.05$) strongly suggests that that spousal mutual respect is a powerful predictor of marital satisfaction in the study population of Benin City, Edo State. Obviously, marital relationship anchor by mutual respect overcomes life challenges and provide blissful ambience for the spouses to navigate. Mutual respect conceptualized as a “two-way street where each partner actively values, acknowledges, and considers the feelings and opinions of the other person so that no one feels hurt”. Mutual respect forms the base for a healthy and thriving marriage where both partners feel valued, importance and heard. When spouses consistently express mutual respect, they enjoy cultivate tolerance, understanding and compromise, which are viable ingredients for lasting blissful dyadic relationship. This finding is consistent with prior empirical research establishing mutual respect as a vital variable for marital satisfaction, including the studies by Laner et al (2016), Zimmer-Gembeck et al (2020), & Kachadourian et al (2018).

The third and key finding revealed that combination of spousal emotional attachment and mutual respect have significantly positive influence on marital satisfaction among couples in Benin city, Edo state. The combined adjusted R^2 value of .788 indicates that 78.8% variation on couple marital satisfaction can be explained by the combination of spouse emotional attachment and mutual respect. As it were, emotional attachment fosters intimacy and unshakable security, while mutual respect promotes equality and constructive healthy conflict resolution, and both has the capacity to strengthen marital bonds. A

combination of emotional attachment and mutual respect in marriage, is a powerful synergy that generate blissful and lasting dyadic satisfaction. Emotional attachment birth closeness, physical intimacy, and shared experiences in a relationship. Mutual respect makes marital intimacy sweet and sustainable. Attachment in marriage provides the passion, warmth, and vulnerability that make marriage lively and fulfilling. Spousal mutual respect produces harmony, equality and admiration that enable marriage safe, sustainable, and solid. It was not surprising therefore, that a marriage rich in both, have a higher positive influence on couple marital satisfaction. This aspect of the current study relates and synthesizes the work of researchers who investigated emotional attachment in combination with other factors in marital relationship, such as parenting stress (Feeney et al. 2023), financial status (Dew et al. 2022), communication patterns (Overall et al. 2023), health (Pietromonaco, et al. 2023), personality traits (Malouff, et al. 2023), and cultural gender roles (Zhang, et al. 2024). By demonstrating the combined effect of attachment and respect, this research provides novel, localized empirical evidence on a core synergistic mechanism for sustaining marital satisfaction in Benin City.

6. Implications

Dyadic relationship education programs should blend both emotional and respect-based teachings to give learners a holistic understanding of marital dynamics

The government educational policies should integrate family-life education as compulsory component of secondary and tertiary curricula.

Social studies or Civic education teachers can be trained to incorporate relationship values as part of their teaching outcomes.

Through community awareness programmes, marriage and family education enlightenment can be used to promote awareness about how emotional attachment and respectful relationships improve family and marital quality.

Counsellors should be well-equipped to teach married spouses emotional attachment, active listening, mutual adjustment, and respect in marital relationship, so that children can grow in a conducive learning environment.

7. Conclusion

Against the backdrop of the empirical submission and discussion of findings, the study effectively addressed

its objectives concerning the relationship between spousal emotional attachment, mutual respect, and marital satisfaction among married persons in Edo State, Nigeria. The results of this study implicitly showed that spousal emotional attachment as well as mutual respect enhance satisfactory dyadic relationship and make marriage enjoyable among married persons.

8. Recommendations

Based on the findings of this study, the following are recommended:

- Persons in marriage should embrace and apply spousal emotional attachment as well as mutual respect in solidifying their relationship for contentment and blissful coupling.
- Marriage counsellors should embrace the concept of spousal emotional attachment and mutual respect and their effects on quality marriage in seminars and refresher courses for married couples.
- School counsellors should organize family counseling programmes even in schools that will treat the importance of marital satisfaction among couples to children academic achievement.
- Counsellors should continue to organize marriage satisfaction workshops and symposiums for couples and intending couples where impacts of spousal emotional attachment and mutual respect on marital satisfaction will be well emphasized.

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Towards a Pragmatic Solutions to Citizen Journalism in Nigeria

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Abstract. This paper focuses on the narrative research method applied in solving the problems of citizen journalism in Nigeria. Narrative literature review is the analysis tool used in this paper. Web of science and Google scholar were the main sources of data for this research paper. It is important to note that the paper focuses on the positive side of citizen journalism as well as the negative side. Citizen journalism allows both professionals and non-professionals the chance to create news content. However, the negative side of citizen journalism is that the information is not edited (there are no gatekeepers), therefore, lack of credibility. In this age of unlimited information, credibility is an important component of the process of information searching.

Keywords: Citizen Journalism, Gatekeeping, Pragmatic Solution, information.

1. Introduction

The advancement of technology in the today's world has brought about information and communication technologies which make communication and interaction all over the globe easier. New technologies have expanded the horizon of communication and shrank the world with the help of the fast communication processes (Apuke, 2016). Thus, the change from the traditional model of one-way communication to the more effective and dynamic two-way communication is the results of technology advancement that provides common people with the opportunity to use media (Tsegay, 2016). In other words, before this Transformation took place, media unit used its power over audience; media fed its audience with

information without giving a chance to express their opinion on the matter.

With the rapid development of ICTs, people became both producers and consumers of information, resulting from citizen journalism. Those who could not voice their opinions found social networking sites such as Twitter, Facebook, and Instagram handy. According to Noel 2012, technologically speaking, the Internet has removed the airs of privilege in which the media were placed-interposing themselves between the source and the user (Berger 2010)-and allowed the public to assume the same social role as the press Domingo et al.2008 and bypass the media's gatekeeping functions Cohn 2010. Computers, mobile telephony, and the Internet put information collection and dissemination within very short periods of time at any corner of the globe in an instant; as Tsegay (2016) noted, it opens up all kinds of possibilities for citizen journalism to be accepted within Nigeria. More properly, it has been very fast in terms of developing and promoting its presence from the United States of America in the 18th century to this present time, in both developed and developing countries worldwide. In Nigeria, for example, it includes activities such as developing websites and blogs to post information about this occurrence.

It has been stated by Dare (2011, p. 22) that there have been citizen journalism websites such as Odili.net, The Nigerian Village Square (NVS), and Nairaland in Nigeria since 2002, 2003, and 2004, respectively. Other online media include Africa.net, Sahara Reporters, Naija Community, and Naijapals.com.

While citizen journalism is now prevalent, most of its practice is marred by the problems of trustworthiness, credibility, and bias. In this regard, Grubisich (2005), in his critical remarks on Ten new citizen journalism sites, states that most of them are substandard in quality and content. Hence, while citizen journalism shows creditable growth in Nigeria and elsewhere, certain aspects of its practice in Nigeria are flawed.

1.1 Objectives of the study

The objectives of this study are to:

- Examined the brief history of citizen journalism in Nigeria
- Examine the status of citizen journalism in Nigeria
- Examine the merit and demerit of citizen journalism in Nigeria.

1.2 Research Methodology

A qualitative research design has been utilized in this research study. The data collection technique adopted in this study is desk study which refers to the process of collecting data from secondary sources such as journals, newspapers, books and so on. The data will be analyzed using descriptive statistics approach. The area where the study is conducted is Nigeria. The study aims to analyze how citizen journalism is applied in the context of Nigeria. Nigeria is a federal republic located in the western region of Africa and shares borders with Chad and Cameroon and Benin in the west and Niger in the north. There are 36 states in Nigeria along with the Federal Capital Territory, which contains the capital city of Nigeria, Abuja.

2. Literature Review

2.1 The Concept of Citizen Journalism

As a concept, citizen journalism can be described as participatory, public, and democratic journalism (Baase, 2008) guerrilla journalism (Case, 2007), or street journalism (Tamara, 2009), whereby a nonprofessional cadre of individuals engages in activities related to gathering, reporting, analyzing, and disseminating information (Bowman, 2003). Jay (2008) refers to citizen journalism as a form of journalism in which people who previously occupied the role of audiences use press tools to tell each other stories.

Further, it is generally understood to be a practice whereby persons at the community, society, state, or national level take an active role in gathering, processing,

and publishing news and information for general consumption (Burkholder 2010, p1). In this sense, a person is equipped with some device-such as a mobile phone or computer-to create a webpage through which one collects news and disseminates it instantaneously with one's gadgets.

What could make this practice develop was the improvement of the ICTs that nowadays allow people to take video, audio, and pictures of the event with a mobile phone and share these with the public through the Internet, particularly via YouTube, Twitter, and other social networking sites. This has been best supported by Gilardi (2016), who argued that the availability of the media technologies to citizens, such as social networking sites and other media-sharing websites, facilitated and increased citizen journalism.

Therefore, with the rise of technology, the citizens set a trend of communicating news ahead of professional journalists. Some of the instances when citizen journalism was evident in great incidents around the globe include: 2010 earthquake in Haiti, Arab spring, Occupy Wall Street Movement, protests in Turkey in 2013, event in Ukraine in 2013 (known as Euromaidan), Syrian civil war, and Ferguson which took place in 2014. In Nigeria, the citizens act as amateur reporters for some of the local media. The TV channel eyewitness reports can be referred to as an instance of citizen journalism in Nigeria. The concept of citizen journalism is in direct contradiction to the traditional media model which is based on top-down communication.

Bowman and Willis (2003) tend to agree with the above-mentioned statement, saying that participatory communication has a horizontal communication model which is not controlled by editing or directing, leading to simultaneous spreading of information through the web social network. According to the researchers, the citizen journalism approach is aimed at creating messages and information as opposed to the editing and filtering of information as done in the traditional media.

2.2 History of Citizen Journalism

Citizen journalism has a rich history. Various scholars have made efforts to get a complete understanding of the evolution of citizen journalism. As Kern and Nam (2008:12) point out, "The origins of citizen journalism are connected with the movement of civic journalism, which appeared as a reform campaign among journalists in the United States. Due to the readership problems of the American newspaper industry in the late 70s, some journalists, intellectuals, and newspaper heads tried to

improve the connection between press and society using new methods of listening to the public.” (Kern & Nam, 2008:13; Sirianni & Friedland, 2001:217), explain that the first civic journalists acted as advocates of common people. They organized public events and brought local issues to the agenda. The local community participated in the news process as interviewees and focus group members and people expressing their opinions on the public meetings. The journalists tried to listen to the audience and bring local issues into the news.

However, the present-day citizen journalism has been closely associated with the invention of the Internet and its associated technologies. Citizen journalism has been associated with the increased level of interactivity in the Internet. As physicist Tim Berners-Lee launched the world’s first website, <http://info.cern.ch/> in 1991, he presented it with very little level of interactivity to the audience. There was some limitation placed by the technology of the Internet on the amount of interactivity possible. But over the next few years there have been a series of developments in Internet technologies which have made interaction with other audiences or publishers of websites much easier.” (www.theopennewsroom.com). There has been a change in the mode of news reporting using citizen journalism since 2004 due to the introduction of Web 2.0 features on websites. “The Web 2.0 features have allowed consumers or ordinary citizens to create their websites or blogs or feeds in mainstream media...” (www.theopennewsroom.com).

There are some unique features of the Web 2.0 technologies which have been used in citizen journalism. “Some of the features which are normally cited as characterizing Web 2.0 include blogging, RSS generated syndication, social networking sites like YouTube, Facebook, Mash-ups, wikis like Wikipedia and other collaborative applications and interactive encyclopedias and dictionaries....” These are the social media aided with the help of Web 2.0 technology that has enabled the citizens to engage in newsgathering and reporting.

Since its conception, citizen journalism has undergone series of tests in some form; one of such is 2004 Indonesian Boxing Day Tsunami and Bombing in London, Virginia Tech disaster where the citizens involved themselves in the act of journalism through the taking and posting of pictures, messages and texts about the happenings. There are also others which include Arab Spring, military coup in Egypt in 2013 and its protests, Occupy Wall Street Movement amongst others where the citizens gathered information on the spot and posted it on the internet for world consumption.

Status of citizen journalism in Nigeria

Status of Citizen Journalism in Nigeria Citizen journalism has gained much prominence in Nigeria. This has been possible through the use of social media where the political elite and the common citizens make use of the available social media tools to gather and disseminate information. Based on this, Dare (2011:44) observed that “national recognition came for social media when on June 28, 2010, Nigerian President Goodluck Jonathan, launched his Facebook fan page to reach out to the youth and Nigerians with a view to getting feedback on electoral reform and other national issues.” He also found that “in the 2011 election campaigns, many Nigerian politicians resorted to the social media (Facebook, Twitter) as the tool for selling their political ideology and winning the voters’ support.”

It is, therefore, no surprise why UNDP (2010:67) pointed out that “the Nigerian President, Goodluck Jonathan was said to have ‘more Facebook fans than the combined tally of British Prime Minister, David Cameron, German Chancellor, Angela Merkel and South African head of state, Jacob Zuma’”

Nigerians have embraced social media and it has become popular among the people because Nigerians have started reporting news from their communities and commenting on happenings in the country. One of such websites that participate in citizen journalism is Sahara reporters, although some people criticize it. However, others acknowledge the timeliness of the reports. In this context, in a study conducted by Dare (2011:44), out of 120 respondents, 86 indicated that Sahara reporters is very good in providing breaking news. As a result, due to its interactivity, immediacy, and spontaneity of the information dissemination, citizen journalism has created significant threats to mainstream media in Nigeria. For example, there is a case of Dana airline crash that happened on June 3, 2012, where more than 150 passengers died. The incident has been reported in real-time by citizen journalists via social media and commentaries have been provided as well. This way, mainstream media has realized that citizen journalism poses significant challenges and has accepted it. “If you can’t beat them, join them”.

Despite this, numerous experts have criticized the type of citizen journalism being performed by the mainstream press in Nigeria. An example of this theory can be cited from Salawu (2011:192) who carried out a study on offline citizen journalism using Nigerian Punch as an example of this trend. He discovered that despite the advantages of citizen journalism as operated by Punch, such as citizens being able to write their own stories, this

is still not the same as citizen journalism done online, and so professional editing of the offline Punch goes on, with journalists acting as gatekeepers in selecting and editing the stories and therefore distorting the real intent of the participants in the citizen journalism practice. That is why the example of CNN's "ireport" citizen journalism is completely different to that of offline Punch journalism.

3. The Advantages and Disadvantages of Citizens Journalism

The topic of citizen journalism has attracted much controversy. Some argue that it is a positive development in journalism in that it eliminates the monopolistic powers of top-down communication, while others argue that it lacks credibility and hence poses a threat to the flow of information in society. Alemoh (2013) pointed out that citizen journalism has started to do us good since it manages to capture some of the events that traditional media fail to report. For instance, citizen journalists were able to instantly cover some of the incidents occurring in remote areas. An example of that is the case of a plane crash involving the ex-Governor of Taraba state of Nigeria, Governor Danbaba Danfulani Suntai, which was immediately broken by citizen journalists yet took traditional media over 24 hours to get it out.

Also, there are citizen journalists such as Amanda Harper who has a blog titled "Journalism: The Future" who states the following; "Citizens who were equipped with mobile phones and had a sight of the Hudson River were the first to break news about the crash of the US flight #1549 in New York in 2009. People using social media websites such as Twitter and Flickr were able to break the news to the world and provide live updates about the accident within minutes."

In addition, Alemoh (2013) mentions that almost all bomb blasts conducted by Boko Haram in Nigeria get covered instantly by citizen journalists complete with photos from the scene even before any main-stream media station reaches the place. This has happened in such states as Borno, Yobe and Adamawa in Nigeria. Instant reportage of bomb blasts can be seen in such social media websites as Facebook and Twitter among others. This shows that citizen journalism provides an avenue where both professionals and non-professionals can generate news stories for the audience/public. As a result, journalism has become more democratic and participative due to emergence of citizen journalism unlike the mainstream media.

Further, one more important feature of citizen journalism is its instantaneous delivery of information. Citizen

journalism delivers its message at the speed of light because there are no gate-keepers. Therefore, it involves instant feedback from its consumers as in the case of Facebook likes. This is the reason why many people refer to citizen journalism as "we media" because content is created by the people, by the people and for the people. Thus, having mentioned the advantages of citizen journalism, there are disadvantages of citizen journalism too. One of the problems with citizen journalism is unreliable nature of its content. There are many commentators who have criticized citizen journalism as the phenomenon of spreading falsehood and other unethical practices in the name of journalism.

Also, the efficiency and advantages of citizen journalism have been discredited by the traditional media owing to the fact that it lacks objectivity. Many journalists and media organizations are very skeptical towards the concept of citizen journalism because of its inauthenticity. They argue that the job of journalism is meant to be done by professional journalists alone, those who are aware of objectivity and balance as well as canon of journalism. Regarding this point, Mgbejume (2008) says that the journalist needs to go through training in order to be able to publish something efficiently. He compares an untrained journalist to an armed madman and says that he can start shooting at will leading to disaster. In addition, Mgbejume states that in order to publish some news on the Internet, one has to get trained in journalism.

Furthermore, according to Educause Learning Initiative (2007), citizen journalism becomes a matter of shortsighted personal vision through allowing everybody the freedom to collect and disseminate the message. Nevertheless, through blogging, Facebook, twitter and others, citizen journalists have created revolutionary information concerning political oppression, corruption and economic theft in the society and the globe.

False news reports are just one of the many potential consequences arising from the reliance of news reports from anonymous sources. The news report may be true, factual and correct. However, it may be faulty, and contain such problems as lack of ethics, impartiality and bias. News report may contain hidden agenda and opinions in disguise of the truth as well as libelous or defamatory statements about people in it. Through gate-keeping process, it is possible to solve the problem of mainstream media. Gate-keeping, as it is called, is carried out by experienced journalists and editors using different methods such as knowledge of law and in-house or commercial style books such as Associated Press Stylebook (www.theopennewsroom.com).

Having reviewed benefits and drawbacks of citizen journalism generally, it is necessary to consider the criticism of citizen journalism in Nigeria.

4. Criticism of Citizen Journalism in Nigeria

Citizen journalism has faced criticism in Nigeria from its opponents. Critics claim that citizen journalism lacks credibility. According to Dare (2011:44), a large number of 120 respondents surveyed did not have trust in Sahara reporters. This implies that a majority of Nigerians do not believe in the stories of citizen journalists. Some people have accused them of spreading lies. Apuke asserts (2016) that the major problem of citizen journalism is the absence of gatekeepers or editors who check or censor the information before it is conveyed to the public, which is connected with credibility and authenticity, which are the basic principles in journalism.

On the contrary, some critics according to Okoro et-al (2013) argue that citizen journalism is responsible for creating conflicts civil unrest as well as political instability. This view reached its peak during the protests following the annulment of the fuel subsidy in January 2012. While some claim that it was citizen journalism which misled the protesters causing some turmoil against the government, it should be noted that the aim of the protest was achieved to an extent considering that the prices of petrol were somehow lowered.

Additionally, citizen journalism is criticized for being a means through which significant issues, as well as events of national calamity, have been belittled and treated with contempt. Of note, there has been much outcry; especially from the political elite over the actions of citizen journalists during the Dana Airline incident on June 3, 2012. Reports indicate that while the rescue team was doing everything possible to search for survivors, citizen journalists could do nothing else but take gruesome photos and send them to their contacts. One recommendation has been that in the event of disasters, citizen reporters ought to abstain from posting any information or images that would interfere with rescue activities.

Another challenge, according to Apuke (2016) is that citizen journalism in Nigeria is full of replication and malpractice. It has been revealed that citizen journalism news and information are many times inconsistent or false; as most of them are propaganda messages meant to incite resentment or cause anger or even injustice to their targets.

5. Theoretical Review

5.1 Gatekeeping Theory

Gatekeeping' as a term was introduced by a German psychologist Kurt Lewin, who introduced the concept in 1951. The term describes the process of narrowing down a virtually endless flow of information into a limited number of messages sent out to the public on a daily basis. Gatekeeping can be seen as the main function of the mass media in the modern life of society. The information of millions of events becomes narrowed down to only a few news pieces that the public gets to know about on an everyday basis. The process of gatekeeping can be considered as a very complicated one since it seems impossible to transform so many possible messages into so few actual ones. The process of gatekeeping not only makes it possible to select the information, but also determines the nature of the selected messages. According to the Gatekeeping Theory, the process of delivering news includes various stages that are responsible for a news story to go to the public. It explains why and how certain pieces of information get accepted and published in the news.

The gatekeepers are responsible for deciding which information can be provided to the audiences and which information cannot. The gatekeeper mentioned here is the people who are in charge of the whole social system. The gatekeepers have their various influences like social, political, ethical and cultural influences. The order in which the gatekeepers allow the information to flow to the group depends on these influences. By doing so, the information that is not important, suitable and controversial is filtered out. This means that the society or any particular group is controlled and brought to a proper way of development. In families, a mother is the one who acts as a gatekeeper and provides the children with needed information and excludes the unneeded one.

In media outlets, the editor's role is that of a gatekeeper. It is upon the editor to decide on the news items that need to be published. Daily different news items arrive at the news media from various sources. The news media generally has certain principles due to which the editor decides on which news items to publish. In some cases, certain news items may be rejected by the editor either due to the policies of the organization or the characteristics of the news items that make them unsuitable for publication.

5.2 Democratic Participant Media Theory

The foundation of the present study is given by the Democratic Participant Media Theory. This theory emphasizes the foundations of society and indicates the importance of horizontal as compared to vertical communication (McQuail, 1987, p.122). One of the significant issues related to this theory is the importance of the breakdown of bureaucratic structures, professional and commercial hegemony in media organizations which makes media access easier for many potential users and consumers of information (Folarin, 2005, p.43). The author of this theory is McQuail (1983) who created the theory based on the notion that had been mentioned earlier and aimed to deal with the problems of society (McQuail 2000, p.160). The theory appeared in the 1960s and 1970s due to the interests in local and community radio and television development (McQuail 1983). McQuail mentions that the essential factor for the usage of this theory as cited by Ezensberger (1970) is the new technologies that appeared during the period. The media supported by the theory is non-commercial, small scale and usually connected with some issue. The concepts of interaction and participation accompany the theory.

This theory is applicable to this study as it is based on the idea that every citizen has a right to access information from media. However, the study deals with inviting citizens to take part in the process. So, this theory will serve as a basis for citizens' involvement in collecting and spreading information.

5.3 Social Responsibility Theory

While the concept of citizen journalism has faced some criticism within the literature (for examples see Dare, 2011:44; Mgbejume 2008; Maher, 2005), the many benefits associated with citizen journalism are well documented (see Alemoh; 2013; Okoro et-al 2013; Apuke, 2016). Because of this, it is important to refer to the social responsibility theory of journalism to provide a theoretical backing for the present paper. This theory was first proposed by Siebert, Peterson and Schramm in 1956 (Apuke, 2016). The social responsibility theory suggests that while the media have the right to publish anything they want, they also have to act responsibly as members of the society. This means that the media have to think carefully regarding what they publish so that it does not incite violence and create biases, but be fair and objective in their messages. The author Apuke (2016) believes that the media may enjoy their freedom, it also needs to be socially responsible when performing its mass

communication functions. Therefore, the ideal journalist should be responsible for his actions.

The theory of social responsibility can be used in this paper due to the fact that in the context of citizen journalism any individual can be a producer of news. Therefore, it is necessary to ensure the social responsibility of a person creating the news in the frame of citizen journalism. The social responsibility in this respect means providing information that is useful, fun and informative and does not lead to the social turmoil. It should also be mentioned that not every news first reported is trustworthy.

5.4 Empirical Framework

The influence of citizen journalism in Nigeria has been examined by Apeverga (2010) in his study. The aim is to determine the effect of citizen journalism on Nigeria's population. The researcher aimed to determine and assess the influence of citizen journalism on the lives of Nigerians. The result showed that citizen journalism has greatly influenced the life of Nigeria's population. Moreover, the researcher established that everyone is a journalist and everyone has the right to express his/her opinion without going to a media organization. According to the research findings, people do not make attempts to get the full information about an event, but people try to publish information about the accident faster than anyone else, just to be the one that writes about the event first. Additionally, Idoko (2012) looked into citizen journalism's capabilities, difficulties, and prospects present in Nigeria. The study results revealed that some of the major issues of citizen journalism are: computer illiteracy, getting access to the internet, and high costs of 'surfing' the internet. This means that the high costs of internet subscriptions have a negative impact on the effectiveness of citizen journalism in Nigeria. Because there is no genuinely free internet service, anyone that wants to publish information must purchase data, which could be very expensive for some people. Nevertheless, he found out that the drawbacks of citizen journalism are not so important. It offers many benefits such as covering a great number of events, being timely in reporting, and improving ICT in the country. In addition, Okoro et al. (2013), in their analysis of advantages and disadvantages of citizen journalism in Nigeria showed that the role of citizen journalism is growing in Nigeria with the help of popular websites providing citizen journalism news. For example, Sahara Reporters is one of those websites and is famous for publishing information timely, as it was found out during the research conducted by Dare (2011:44), where out of 120 respondents, 86 participants admitted that Sahara Reporters is the place where one can find

breaking news. Thanks to its interactive and timely nature, citizen journalism has created a competition for the traditional media in Nigeria. Citizen journalism has given Nigerians access to wide-ranging and diverse news. However, it is vital that citizen journalists refrain from publishing news or images that might thwart rescue operations in an emergency situation.

6. Conclusion

The rise of technology in the current 21st Century has introduced huge Information and Communication Technologies (ICT) which have changed the existing communication dynamics through various mediums through which the person interacts with his environment. Several new media communication channels born of the Information and Communication Technologies (ICT) have given rise to “citizen journalism”. The modern information channels coined from ICTs include online news websites, cable news channels, internet and World Wide Web, etc. Modern media has paved the way for revolutionizing the communication domain by making the world a global village.

The paper covers the practice of citizen journalism in Nigeria. It is seen from the discussions that the practice of citizen journalism has a bright future in Nigeria, nevertheless, some things should be worked on like ensuring that the citizen has sufficiently good knowledge of what he is going to share with the audience in the light of the opportunities offered by citizen journalism.

7. Recommendations

To resolve some of the issues facing citizen journalism/participation, this article proposes the following recommendations:

- All citizen journalists must ensure that the information they gather goes through the editing process by a professional before being released.
- All the participants in citizen journalism must know and understand the principles of journalism regarding balance, fairness and objectivity.
- The government and other bodies must help reduce the costs of ICT equipment aimed at ensuring the development of citizen journalism in Nigeria.
- A number of measures must be taken to punish those who abuse the medium for purposes of inciting hatred and causing disunity, riots and other disturbances.

- Citizen journalists must have a clear and true vision of the event before disseminating it. Journalism is not just about being the first to report; it is also about doing it accurately and correctly.

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Educational Infrastructure Planning and Students' Academic Performance in Public Secondary School in Edo South Senatorial District of Edo State, Nigeria

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Abstract. This study examined the relationship between educational infrastructure planning and students' academic performance in public secondary schools in Edo South Senatorial District, Edo State. The study adopted a descriptive survey research design with a sample of 684 students and 132 teachers selected from 26 public secondary schools across the seven Local Government Areas in the district. Data were collected using a structured questionnaire and analysed using descriptive statistics and Pearson Product Moment Correlation at 0.05 level of significance. The findings revealed that there is a significant positive relationship between classroom facilities and students' academic performance, library facilities and students' academic performance, laboratory facilities and students' academic performance, and electricity facilities and students' academic performance. The study concluded that educational infrastructure planning is a critical determinant of students' academic performance in public secondary schools. It was recommended that school administrators and the government should prioritise the provision and maintenance of classroom facilities, library facilities, laboratory facilities, and electricity facilities to enhance students' academic performance.

Keywords: Educational infrastructure planning, classroom facilities, library facilities, laboratory facilities, electricity facilities, academic performance, educational planning, Edo South Senatorial District.

1. Introduction

Education is widely recognised as a fundamental driver of national development. In Nigeria, secondary schools play a critical role in preparing students for higher education and for life beyond the classroom. However, the quality of

secondary education in Nigeria has been a subject of concern for many years, with stakeholders expressing worries about declining standards, inadequate infrastructure, and poor student performance (John & Umar, 2024; Itedjere, 2025). Educational infrastructure planning refers to the process of identifying, providing, and maintaining the physical facilities and resources needed to support effective teaching and learning. These facilities include classrooms, libraries, laboratories, electricity supply, water supply, and other amenities that create a conducive learning environment (Chukwuma & Sokare, 2024). According to John and Umar (2024), the availability and quality of amenities provided in educational institutions have a direct relationship with students' academic performance.

The relationship between educational infrastructure and students' academic performance is well established. Adequate and well-maintained facilities provide a conducive learning environment that enhances students' concentration, engagement, and academic achievement (Itedjere, 2025; Chukwuma & Sokare, 2024). Conversely, inadequate or poorly maintained facilities create barriers to learning, leading to poor academic performance. Chukwuma and Sokare (2024) found that library facility planning and laboratory facility planning enhance academic performance.

This study is anchored on the Input-Output Model, which is widely used in educational planning and economics. The model posits that the quality of educational outcomes (outputs) is determined by the quality and quantity of inputs provided to the educational system. In the context of this study, inputs include educational infrastructure such as classroom facilities, library facilities, laboratory facilities, and electricity facilities, while outputs include

students' academic performance. The model suggests that when inputs are adequate and of good quality, outputs will also be of good quality. Conversely, when inputs are inadequate, outputs will be compromised. Chukwuma and Sokare (2024) applied this framework to examine educational facility planning and found that library and laboratory facility planning enhance academic performance.

The model is relevant to this study because it provides a framework for understanding how educational infrastructure (input) affects students' academic performance (output). When schools provide adequate and well-maintained classroom facilities, library facilities, laboratory facilities, and electricity facilities, students are better able to learn and achieve academic success. The Input-Output Model also highlights the importance of the learning environment in the educational process, as the physical environment in which learning takes place can either facilitate or hinder learning. Adequate and well-maintained infrastructure creates a conducive learning environment that enhances students' concentration, engagement, and academic achievement (Mando, 2025).

Several empirical studies have examined the relationship between educational infrastructure and students' academic performance in Nigerian secondary schools and other educational institutions. John and Umar (2024) examined how school facilities affect student performance in Nigeria, focusing on the importance of physical resources such as classrooms, libraries, and laboratories. The study used data from surveys and interviews in various states and showed differences in infrastructure between urban and rural schools and how these differences impact learning. The results highlighted the need for policy changes to improve facilities, especially in areas that lack funding, in order to help students perform better and have more educational opportunities.

Itedjere (2025) investigated the relationship between school infrastructure and student academic performance in Nigeria, highlighting the critical role that physical learning environments play in educational outcomes. Utilising a mixed-methods approach, the study analysed quantitative data from a diverse sample of schools alongside qualitative insights from educators and administrators. Key infrastructure components including classroom conditions, availability of learning materials, and access to technology were assessed to determine their influence on student achievement. The findings revealed significant correlations between high-quality infrastructure and improved academic performance. Chukwuma and Sokare (2024) examined educational facility planning for enhanced academic performance of

public senior secondary school students in Rivers State. The study adopted a descriptive survey design with a population of 8,452 students and a sample size of 382 students. A self-designed instrument titled "Educational Facility Planning for Enhanced Academic Performance of Students Questionnaire (EFPEAPSQ)" was used for data collection, with a reliability index of 0.69. The findings revealed that library facility planning and laboratory facility planning enhance academic performance.

Mando (2025) examined educational administration and planning as correlates of quality education in Nigeria. The study examined concepts including educational administration, educational planning, and correlates of quality education, such as teacher quality, student achievement, infrastructure and learning environment. Findings revealed the interconnection between educational administration, educational planning and quality education. The study also delineated challenges facing educational administration and planning in Nigeria, including inadequate funding, poor leadership, corruption and policy implementation gap. Anang and Udik (2020) examined the influence of school infrastructure on student learning activeness. The study found that school infrastructure significantly influences student learning activeness. The study recommended that schools should provide adequate infrastructure to enhance student learning.

Ekaette, Ameh and Owan (2020) evaluated statistical trends of school size, location, and enrolment in public junior secondary schools for sustainable development. The study found that school location and enrolment significantly affect school infrastructure provision and utilisation. Ihebom and Uko (2020) examined challenges and prospects of secondary education in Nigeria. The study found that inadequate infrastructure is a major challenge facing secondary education in Nigeria. Monity and Abam (2024) examined library facilities and classroom environment as viable tools for instructional efficiency toward better academic performance of primary school pupils. The study found that library facilities and classroom environment significantly influence academic performance.

Umar et al. (2024) conducted a theoretical review of the problems of Nigerian educational system from 2010 to 2020. The study found that inadequate infrastructure is one of the major problems facing the Nigerian educational system.

In Edo South Senatorial District, the challenges of educational infrastructure planning are significant. The district comprises seven Local Government Areas: Egor,

Ikpoba-Okha, Oredo, Orhionmwon, Ovia North-East, Ovia South-West, and Uhunmwode. According to the Post Primary Education Board, Benin City (2024), there are 135 public secondary schools in the district with 22,799 students and 1,318 teachers. Many of these schools lack adequate classrooms, libraries, laboratories, and electricity supply, which negatively affects students' academic performance. Studies have shown that amenities such as electricity supply, classrooms, libraries, and laboratories have a direct and significant effect on students' academic performance (Mando, 2025; John & Umar, 2024). This study, therefore, seeks to examine the relationship between educational infrastructure planning and students' academic performance in public secondary schools in Edo South Senatorial District, Edo State.

1.1 Statement of the Problem

The ideal situation in any well-functioning secondary school system is that educational infrastructure is adequately planned, provided, and maintained to support effective teaching and learning, with students having access to well-equipped classrooms, libraries, laboratories, and a stable electricity supply that create a conducive learning environment enhancing their concentration, engagement, and academic achievement.

The actual situation in public secondary schools in Edo South Senatorial District, however, falls far short of this ideal. Many schools lack adequate classroom facilities with overcrowded classrooms, broken furniture, poor lighting, and inadequate ventilation (Chukwuma & Sokare, 2024; Itedjere, 2025). Library facilities are often inadequate with limited books, journals, and electronic resources, laboratory facilities are insufficient with outdated equipment and inadequate space, and electricity supply is erratic and unreliable, making it difficult for students to study, conduct research, and complete assignments (Mando, 2025; John & Umar, 2024). Several factors contribute to this problem, including inadequate funding for infrastructure development and maintenance, poor planning and management of educational infrastructure, limited capacity for effective infrastructure planning in many schools, and lack of regular maintenance of existing facilities. The consequences are significant, as students in overcrowded and poorly equipped classrooms cannot concentrate and learn effectively, those lacking access to library resources cannot conduct research and complete assignments, those without laboratory facilities cannot develop practical skills, and those experiencing erratic electricity supply cannot study, conduct research, or complete assignments, all contributing to poor academic performance. Despite the severity of this problem, there is limited empirical

evidence on the specific relationship between educational infrastructure planning and students' academic performance in Edo South Senatorial District. This study, therefore, seeks to fill this gap by examining the relationship between educational infrastructure planning and students' academic performance in public secondary schools in Edo South Senatorial District.

1.2 Objectives of the Study

The main objective of this study is to examine the relationship between educational infrastructure planning and students' academic performance in public secondary schools in Edo South Senatorial District, Edo State. The specific objectives are to:

- Examine the relationship between classroom facilities and students' academic performance in public secondary schools in Edo South Senatorial District.
- Determine the relationship between library facilities and students' academic performance in public secondary schools in Edo South Senatorial District.
- Examine the relationship between laboratory facilities and students' academic performance in public secondary schools in Edo South Senatorial District.
- Determine the relationship between electricity facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

1.3 Research Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

H₀₁: There is no significant relationship between classroom facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

H₀₂: There is no significant relationship between library facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

H₀₃: There is no significant relationship between laboratory facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

H₀₄: There is no significant relationship between electricity facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

2. Research Methodology

This study adopted a descriptive survey research design, which allows for the systematic collection of data from a sample of respondents to describe their characteristics, attitudes, and experiences without manipulating any variables. The study was carried out in Edo South Senatorial District, Edo State, Nigeria, which covers seven Local Government Areas: Egor, Ikpoba-Okha, Oredo, Orhionmwon, Ovia North-East, Ovia South-West, and Uhunmwode. According to the Post Primary Education Board, Benin City (2026), there are 129 public secondary schools in the district with 22,799 students and 1,318 teachers.

The population comprised all students and teachers in public secondary schools in Edo South Senatorial District, totalling 22,799 students and 1,318 teachers. The sample consisted of 684 students (representing 3% of the student population) and 132 teachers (representing 10% of the teacher population) selected from 26 schools across the seven Local Government Areas using multi-stage sampling technique involving stratification by LGA, random selection of schools, systematic random sampling of students from SS1-SS3, and proportionate stratified

random sampling of teachers. The instrument used was a structured questionnaire titled "Educational Infrastructure and Students' Academic Performance Questionnaire (EISAPQ)", designed to elicit information on classroom, library, laboratory, and electricity facilities and their relationship with students' academic performance, measured on a four-point Likert scale.

The validity of the instrument was established through content and face validity by three experts in educational management and measurement and evaluation. The reliability was established through a pilot test administered to 30 students and teachers, with Cronbach's alpha coefficients ranging from 0.78 to 0.86 across sections, consistent with Chukwuma and Sokare (2024) who reported a reliability index of 0.69. Data were collected through direct administration of the questionnaire over six weeks, with 650 completed questionnaires returned from students (95% response rate) and 125 from teachers (94.7% response rate). Data were analysed using based of formulated hypotheses using inferential statistics including Pearson Product Moment Correlation were used to test hypotheses at 0.05 level of significance using SPSS version 27.0.

3. Results

Hypothesis Testing

Hypothesis One: There is no significant relationship between classroom facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Table 1: Correlation Analysis of Classroom Facilities and Students' Academic Performance

Variable	N	Mean	Std. Deviation	r	p-value
Classroom Facilities	650	3.65	0.52	0.64	0.000
Academic Performance	650	3.58	0.56		

Source: Field Survey, 2026

Results in Table 1 show a correlation analysis of the relationship between classroom facilities and students' academic performance. The $r = 0.64$, with a $p\text{-value} = 0.000$. Testing at 0.05 alpha level of significance, the $p\text{-value}$ is less than alpha level. Hence, the hypothesis is rejected at $P < 0.05$. Therefore, there is a significant positive relationship between classroom facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Hypothesis Two: There is no significant relationship between library facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Table 2: Correlation Analysis of Library Facilities and Students' Academic Performance

Variable	N	Mean	Std. Deviation	r	p-value
Library Facilities	650	3.68	0.54	0.68	0.000
Academic Performance	650	3.58	0.56		

Source: Field Survey, 2026

Results in Table 7 show a correlation analysis of the relationship between library facilities and students' academic performance. The $r = 0.68$, with a $p\text{-value} = 0.000$. Testing at 0.05 alpha level of significance, the $p\text{-value}$ is less than

alpha level. Hence, the hypothesis is rejected at $P < 0.05$. Therefore, there is a significant positive relationship between library facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Hypothesis Three: There is no significant relationship between laboratory facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Table 8: Correlation Analysis of Laboratory Facilities and Students' Academic Performance

Variable	N	Mean	Std. Deviation	r	p-value
Laboratory Facilities	650	3.68	0.54	0.62	0.000
Academic Performance	650	3.58	0.56		

Source: Field Survey, 2026

Results in Table 8 show a correlation analysis of the relationship between laboratory facilities and students' academic performance. The $r = 0.62$, with a $p\text{-value} = 0.000$. Testing at 0.05 alpha level of significance, the $p\text{-value}$ is less than alpha level. Hence, the hypothesis is rejected at $P < 0.05$. Therefore, there is a significant positive relationship between laboratory facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Hypothesis Four: There is no significant relationship between electricity facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

Table 4: Correlation Analysis of Electricity Facilities and Students' Academic Performance

Variable	N	Mean	Std. Deviation	r	p-value
Electricity Facilities	650	3.70	0.50	0.70	0.000
Academic Performance	650	3.58	0.56		

Source: Field Survey, 2026

Results in Table 4 show a correlation analysis of the relationship between electricity facilities and students' academic performance. The $r = 0.70$, with a $p\text{-value} = 0.000$. Testing at 0.05 alpha level of significance, the $p\text{-value}$ is less than alpha level. Hence, the hypothesis is rejected at $P < 0.05$. Therefore, there is a significant positive relationship between electricity facilities and students' academic performance in public secondary schools in Edo South Senatorial District.

4. Discussion of Findings

The first finding of this study revealed that there is a significant positive relationship between classroom facilities and students' academic performance in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that adequate classroom facilities enhance academic performance, that well-ventilated classrooms improve concentration, and that adequate lighting in classrooms enhances learning. These findings are consistent with Itedjere (2025), who found that classroom conditions significantly influence student achievement, and Chukwuma and Sokare (2024), who found that educational facility planning enhances academic performance. The finding that adequate lighting

in classrooms enhances learning is particularly significant. Studies have shown that poor lighting, broken furniture, and inadequate ventilation disrupt concentration and reduce instructional quality (Mando, 2025). When classrooms are well-lit, well-ventilated, and comfortable, students are better able to concentrate and learn effectively.

The second finding revealed that there is a significant positive relationship between library facilities and students' academic performance in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that library facilities enhance academic performance, that the availability of textbooks in the library improves learning, and that access to journals and e-resources enhances academic achievement. These findings are consistent with Monity and Abam (2024), who found that library facilities significantly influence academic performance, and Chukwuma and Sokare (2024), who found that library facility planning enhances academic performance. The finding that a well-equipped library supports research and learning is particularly important. Libraries play a critical role in supporting students' academic success by providing access to diverse learning resources (Monity & Abam,

2024). When libraries are well-equipped with textbooks, journals, and e-resources, students are better able to conduct research, complete assignments, and achieve academic success.

The third finding revealed that there is a significant positive relationship between laboratory facilities and students' academic performance in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that laboratory facilities enhance practical learning, that well-equipped laboratories improve academic performance, and that access to laboratory equipment enhances understanding. These findings are consistent with Chukwuma and Sokare (2024), who found that laboratory facility planning enhances academic performance. The finding that laboratory facilities support research and experimentation is particularly significant. Laboratory facilities are essential for practical learning, particularly in science-based disciplines. When laboratories are well-equipped and accessible, students are able to develop practical skills, conduct experiments, and enhance their understanding of theoretical concepts.

The fourth finding revealed that there is a significant positive relationship between electricity facilities and students' academic performance in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that stable electricity supply enhances academic performance, that electricity facilitates studying and research, and that erratic power supply negatively affects academic performance. These findings are consistent with John and Umar (2024), who found that electricity supply has a significant effect on students' academic performance. The finding that electricity enables access to e-resources and online learning is particularly significant. In today's digital age, access to electricity is essential for students to access online learning resources, conduct research, and complete assignments. When electricity supply is reliable, students are better able to engage in learning activities and achieve academic success.

5. Conclusion

This study examined the relationship between educational infrastructure planning and students' academic performance in public secondary schools in Edo South Senatorial District, Edo State. The study found significant positive relationships between all four types of infrastructure facilities examined and students' academic performance. Adequate and well-maintained classrooms with proper lighting, ventilation, and comfortable seating create a conducive learning environment that enhances

concentration and achievement. Well-equipped libraries with textbooks, journals, and e-resources support research and learning, with frequent library use associated with better performance. Well-equipped laboratories enhance practical learning, support experimentation, and improve understanding of theoretical concepts, while stable electricity supply facilitates studying, research, and access to e-resources and online learning. The study concluded that educational infrastructure planning is a critical determinant of students' academic performance. When educational infrastructure is adequately planned, provided, and maintained, students are better able to learn and achieve academic success. However, when infrastructure is inadequate or poorly maintained, students face significant barriers to learning, leading to poor academic performance.

6. Recommendations

Based on the findings of this study, the following recommendations are made:

School administrators and the Edo State Government should prioritise the provision and maintenance of classroom facilities, including adequate lighting, ventilation, comfortable seating, and adequate space. This will create a conducive learning environment that enhances students' concentration and academic achievement.

School administrators and the government should invest in library facilities and resources, including textbooks, journals, and e-resources. This will support research and learning and enhance students' academic performance. School administrators should equip laboratories with modern equipment and ensure that they are well-maintained and accessible to students. This will enhance practical learning and improve students' understanding of theoretical concepts.

The Edo State Government and school administrators should ensure stable electricity supply in public secondary schools. This may involve investing in alternative energy sources such as solar power, generators, and energy-efficient technologies. Stable electricity supply will enhance academic performance, facilitate studying and research, and enable access to e-resources and online learning.

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Property Abandonment and the Nigerian Real Property Rental Market: The Emerging Issues and Challenges in the Osogbo Real Estate Market

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Abstract. Property abandonment has emerged as a critical challenge within the Nigerian real property rental market, reflecting deep-rooted socioeconomic, legal, structural and aesthetic value issues. This phenomenon, characterized by the non-utilization or better still, the total neglect of the performance and contribution of rentable residential and commercial properties, contributes significantly to the current state of urban decay; declining rental revenue for property owners; and a distortion of housing supply chain exacerbating urban housing shortages. The drivers of property abandonment as highlighted in previous literature include the lack of feasibility appraisal, haphazard real property management strategies, protracted land disputes and legal actions, insecurity, high maintenance costs, and policy inconsistencies among others. In many Nigerian urban centers, particularly in states like Lagos, Abuja, and Port Harcourt, abandoned properties exacerbate housing deficits and reduce investor confidence in the real estate sector. The paper explores the mixed research methodology to unearth the causes, implications, and the systemic challenges associated with property abandonment in Osogbo, an emerging city center and its impact on the city's property rental market. The

study further evaluates the perceptions of the respondents and proposes the need for an integrated reform on financial, legal and operative policies of the state government on housing as part of sustainable strategies to revitalize underutilized assets and enhance urban housing delivery.

Keywords: Property abandonment, property rental market, housing deficit, real estate, policy reform.

1. Introduction

Property abandonment particularly, residential and commercial real estate investments are increasingly becoming typical issue in many urban centers across cities in Nigeria, including Osogbo, an emerging city center. Despite its unprecedented historical significance and strategic role as an emerging growing city and a state capital in south-west Nigeria, Osogbo metropolis is prone to the challenges of a rising trend of underutilized and neglected property abandonment in both the residential and commercial real estate rental market subsector. The abandoned properties do not only have the consequential effect of the distortion of the city's aesthetical appeal but also signal deep-

rooted institutional and socioeconomic challenges that affects the city developmental structure, urban housing deficit or availability, affordability issues and sustainability. It was observed by earlier scholars that, real property abandonment in Osogbo and most parts of south-west Nigeria was largely influenced by the combination of persistent and prolong land ownership disputes and inheritance issues resulting in protracted litigation, death, economic downturns, rising poverty levels, insecurity, distorted city planning, and weak regulatory framework (Ankeli, 2024; Lawanson & Olanrewaju, 2012, Ogunba and Aluko, 2011). Nevertheless, Oloyede (2010) attributed the observable upward trend in property abandonment and the incapability or reluctance of most property owners to maintain, complete or let their properties out to the intense rising costs of refurbishment, unresolved legal disputes on property titles and family inheritance issues. Other causes for property abandonment and real property investment viability deterrence identified in the study are the late realization of poor demand for property in the city neighbourhood with high rate of abandoned properties, deficient infrastructure and taste variation.

The lack of authentic or comprehensive property database or the near absent of abandoned properties inventory in Osogbo limits the power of local authorities to develop strategic interventions. The importance of a proactive urban governance, improved property taxation policies, and reinforced land administration systems to mitigate abandonment and ensure efficient use of real estate assets was emphasized by Ibem and Amole (2013) and Oladapo and Ojo (2019). However, without concerted efforts from stakeholders, there is every likelihood that, the situation of real property abandonment in the city of Osogbo may continue to take an upward trend, thereby hinder urban regeneration and revitalization efforts, thereby worsening the existing housing situation, reducing urban housing aesthetics and property values. As an emerging rental market, the need for the understanding of the actual dimensions and the drivers of real property abandonment in the Osogbo evolving real estate market is crucial for the formulation of effective policy responses. Hence, this study investigates the inherent causes, implications, and possible solutions to real property abandonment, particularly, abandoned residential and commercial property developments in the Osogbo metropolis, with the aim of contributing to a more resilient and functional rental housing subsector of the state real estate market.

2. Literature Review

2.1 Property Abandonment, Concept, Causes, Consequences, Strategies and Policy Responses

As a multidimensional concept, issues on real property abandonment often attracts a far-reaching implication for housing availability and affordability, urban development, urban aesthetics, security and socioeconomic stability. Previous scholars have explored this phenomenon across various contexts, distinguishing its divers causes and consequences. In the Nigerian context, Lawanson and Olanrewaju (2012) and Oloyede (2010) asserted that property abandonment situation in the country is exacerbated by weak regulatory frameworks, weak planning standards enforcement as well as socioeconomic instability. Also, Ajayi and Omole (2015) further agreed that secondary cities as Osogbo are equally increasingly experiencing similar cases of building abandonment challenges with the negative effect of urban blight that is typical of bigger cities as Lagos, Abuja, Ibadan, Kano and Port Harcourt.

Conceptually, Pagourtzi et al., (2003) see property abandonment as the state where building development projects are left unoccupied, underutilized, or neglected for an extended period, resulting in structural decay and loss of value. Properties in such state often fall out of the formal rental market; hence, cease to contribute meaningfully, either economically, socially, or physically to the urban fabric. Ibem & Amole (2013) therefore concluded that, situation as this in the Nigerian discourse, is often a critical phenomenon due to issue of urban housing challenges, particularly, in the area of urban housing deficit, where demand for affordable housing far outpaces its supply, thereby causing chaotic rental market.

Several factors have been identified and isolated to be the drivers of real property abandonment in most major cities across Nigeria. Issues as the continuous rising inflationary trend and other economic constraints, gender issues, prolong litigation emanating from land ownership right dispute, unemployment, inheritance among others (Ankeli *et al.* 2020, Aluko, 2011 and Ogunba, 2005). However, Ogunba (2011) was specific to mentioned that the protracted legal dispute resulting from familial and communal land ownership systems rendering properties uninhabitable for a substantial period are often reasons for building abandonment in Osogbo. Yet another persuasive factor identified in previous literature is the deficient urban planning laws across the country. Most residential neighbourhoods are

poorly planned with deficient social infrastructural amenities and even where planning policies existed, the political will to enforce such policies are lacking. Egbu *et al.*, (2008) submitted that, the defective planning policies in most Nigerian cities have made neighbourhoods unattractive to potential tenants and investors, resulting in high vacancy rate and the eventual building project abandonment. In line with this assertion, Agunbiade *et al.*, (2012) posited that, issues of insecurity, be it in the form of vandalism, theft or total social unrest, has been a major factor discouraging the habitation or maintenance and the completion of some building projects, particularly in the highly crime prone areas. Olatoye and Sanusi, (2016) attributed the reason for the recent trend of the rapid urban expansion in Osogbo, without corresponding infrastructural upgrade or development to population influx that has created pockets of underserved zones, leading to slum settlement formation and diminishing property demand. Furthermore, the current economic hardship in the country and specifically, in Osun, a purely civil servant state, has led to, not only job losses but also disincentive or the lack of interest by potential tenant or property purchaser to enter into lease or sale agreement. The present inflationary rate in the country has further reduced the purchasing power of property market participants; meaning only very few tenants will be able to afford rents, leading to increased vacancy rates. Also, issues relating to speculative development and the new trend of hiding proceeds of corrupt practices in real estate development. Recently, real property investment is seen in Nigeria, as an ease avenue through which proceeds of corruption can be stored without suspicion from the public. Hence, those with such proceeds invest in building project development not with the intent of immediate completion but for speculation or as a cover up. Hence, Nubi (2008) concluded that, investment in real property as this will remain idle as such investment will fail to materialize as expected or achieve its aim of rental returns appreciation.

Building project abandonment has both direct and indirect consequences on the citizens and the nation at large as it is a major source for housing stock reduction/shortages engendering worsening housing deficit. Akinmoladun and Oluwoye, (2007) observed that abandoned real property projects often serves as abode for most people with questionable character or criminal tendencies and sites for criminal activities and illegal occupation, thereby exacerbating urban insecurity. It further adds up to city deterioration or urban decay giving rise to aesthetic problem, slum formation and city blight. The consequences of these

are the negative effects it has on the overall city aesthetics with the eventual decline in the surrounding property values and public health risks due to environmental degradation. More so, the confidence of investors in the real property market are often undermine, knowing that there exist serious cases of building project abandonment in a particular neighbourhood. Property abandonment is usually seen as a systemic weakness that could discourage investment flow into an emerging city as Osogbo. It is on record that cities have lost significant tax revenues due to property abandonment; hence, affecting municipalities ability to meet up with infrastructure and service needs (Mallach, 2010).

Cities across the globe have device series of methods or approaches through which issues of real property abandonment can be resolved. Since it is not a one size fit all situation for all cities, Mallach (2010) opined that, some cities have addressed their abandonment issues through targeted intervention as tax incentives for property renovation, compulsory acquisition for redevelopment, and public-private partnerships for affordable housing. Nonetheless, scholars as Ajayi and Omole, (2015) and Oladapo and Ojo, (2019) had observed the existence of policy inconsistency or a very weak policy responses as the basic challenge exacerbating property abandonment issues in the Nigerian; hence, had advocated for alternative dispute resolution mechanisms, integrated land management systems, urban renewal policies and a streamlined property registration system to revive abandoned assets.

Notwithstanding the opinions of the previous studies, this study is of the view that property abandonment problems in Osogbo will be better tackle through the adoption of a collaborative efforts between the state and local government organs, professionals as urban planners, estate surveyors and the other stakeholders in the built environment. Furthermore, critical mapping of the area through the introduction of spatial data system that will present a stronger and better opportunity, thereby, creating further incentives for redevelopment and positively enhancing the city aesthetics, housing market and urban resilience.

3. Methodology

The study adopted a mixed-method research design combining both quantitative and qualitative research approaches to gain a comprehensive understanding of property abandonment and its impact on the rental market in Osogbo, Nigeria. The mixed-method research approach was used to allow for data

triangulation, hence, enhancing the research reliability and its depth of findings.

The city Osogbo in this study was used in its generic context to mean Osogbo Capital Territory. Though, the city is not as densely populated as other bigger Nigerian cities as Lagos, Kano, Port Harcourt or Abuja, but gradually beginning to exhibit similar pattern of real property abandonment, especially, in both the aging neighbourhoods and the peri-urban areas of the city. In Osogbo, several estates and commercial complexes remain largely unoccupied years after construction due to poor location or lack of supporting infrastructure.

The rationale for picking Osogbo, the capital of Osun state, Nigeria, as the case study area was due to its rapid urbanization rate which Ankeli et al, (2023) attributed to cheap land and living cost, housing market expansion, and noticeable increasing trend in underutilized or abandoned properties in the recent time. The study therefore grouped building project abandonment into two. First, those projects that have no form of work/activities on site for between one year to five years are considered as partial abandonment, while, the study considered the second group to include, projects left unattended to for over five years as total abandonment; hence, falls within the scope of the current studies.

To gather adequate data on the subject matter, the study adopted a descriptive survey research design for the quantitative research component, while key informant interviews was used for the qualitative aspect of the research. The combination was intended to capture both statistical trends and contextual factors influencing property abandonment in Osogbo. The targeted respondent for this study are owners/representatives of the abandoned properties, intending tenants/residents within the neighbourhood, practicing estate surveyors and valuers within Osogbo, Osun State Ministry of Lands and Physical Planning staff, and local government authorities.

The study adopted a multi-stage sampling technique as the selected residential neighbourhoods were first, intentionally delineated based on some observed incidence of property development project abandonment. The selected neighbourhoods are Oke-Fia/Alekuwodo, Dada Estate/Hallelujah and Ota-Efun. Thereafter, one hundred and fifty (150) respondents from among property owners or their representatives and tenants and residents of the areas were selected using stratified random sampling technique. Additionally, ten (10) key informants who are professionals in the real estate subsector and those

involved in the city planning and urban housing development from the public sector were interviewed. Property types considered for this study are abandoned residential properties and purpose-built commercial properties in the study area. The instruments used for data collection are structured questionnaires administered to property owners or their representatives and tenants or residents of the neighbourhoods to gather information on the frequency and condition of abandoned properties; the causes of abandonment; impact of the abandonment on rental value and the aesthetics of the neighbourhood. On possible suggestions for project abandonment remediation, the study adopted a semi-structured interview format which were conducted with practicing estate surveyors and valuer and public service officials to ascertain their perceptions on regulatory, economic, and planning-related challenges exacerbating real property development abandonment. Field Observation was used to document the physical condition and locations of the selected abandoned property development projects.

Data collected were analyzed using descriptive statistics such as frequencies, percentages, and mean scores (quantitative data), while qualitative data from interviews were subjected to thematic analysis, which involved coding and categorizing responses into key themes such as causes, effects, and potential solutions.

Real estate surveying and other urban studies academic experts were consulted to review the contents of the questionnaire before there were administered to the respondents. A pilot study was conducted in a proximate city of Ede with twenty (20) respondents in order to refine the adopted research instrument. Reliability was tested using Cronbach's Alpha, with a coefficient of 0.81 indicating acceptable internal consistency. This methodology provided a robust framework for assessing the scope, causes, and consequences of property abandonment on rental values in Osogbo, and for proposing actionable policy and planning recommendations.

4. Results and Discussion of Findings

The results from the quantitative and qualitative data collected from the field were presented and interpreted within the context of existing literature in this section. The crux of the study centered on the causes, spatial distribution, impacts, and the perceptions of the stakeholder on property development project abandonment in the Osogbo rental market.

4.1 Causes of Property Development Project Abandonment

In order to determine the actual cause of property development project abandonment in the selected study locations, a total of one hundred and fifty (150)

questionnaires was administered on the respondents. The breakdown of the location-by-location questionnaire administration and the multiple causes of property development project abandonment identified by the respondents and isolated for the study are summarized and reported in Table 1.

Table 1: Demographic Profile of the Respondents and Causes of Property Development Abandonment

Category	Oke-Fia /Alekuwodo (N = 50)	Dada Estate / Hallelujah (N = 50)	Ota-Efun (N = 50)	Total	% Rate
Gender					
Male	40	30	35	105	70
Female	10	20	15	45	30
Total	50	50	50	150	100
Age Group					
18 – 30	10	20	10	40	27
31 – 45	15	15	15	45	30
46 + years	25	15	25	65	43
Total	50	50	50	150	100
Causes of Abandonment					
Ownership disputes and inheritance issues	5	4	7	16	10.7
Economic/financial reasons	12	18	11	41	27.3
Poor demand due to bad location/insecurity	5	7	5	17	11.3
High cost of building Materials	10	10	8	28	18.7
Speculative landholding	6	4	3	13	8.7
Government acquisition and demolition notice	4	2	6	12	8.0
Policy inconsistencies	8	5	10	23	15.3
Total	50	50	50	150	100

Source: Field survey, (2025) *No = Number; Admin = Administered; % = Percentage; Retri= Retrieved*

Table 1 present the analysis of the total number of questionnaires administered on the targeted respondent in the various locations. In all, the one hundred and fifty questionnaires administered to the respondents at the various locations (Oke-Fia/Alekuwodo, Dada Estate/Hallelujah and Ota-Efun) was done equally. That is, each of the locations got fifty questionnaires. Male gender constitutes the bulk of the respondents that provide answers to the questions asked in the questionnaire with about 70% response rate. The most influencing causative factors across the various locations are economic/financial reasons and high cost of building materials with scores of 27.3% and 18.7%, while Government acquisition and demolition notice is the least critical factor for property abandonment in the study location.

However, one of the novelties of this study is the fact that, inheritance and unresolved ownership dispute often considered to be a major cause of project abandonment in most cities in south-west, thus a critical factor is not a very strong factor for project abandonment in the study locations. Hence, the findings of the study negate the assertion of Ogunba (2005), who noted that, traditional inheritance practices in Yoruba communities often create long legal stalemates that delay decisions on property usage frequently leading to abandonment. The finding of this study rather tend to aligns more with Aluko (2011) who emphasized the impact of economic hardship on property upkeep and as a beam for project abandonment.

4.2 Spatial Distribution and Condition of Abandoned Properties

The study conducted a physical field inspection survey to enable the researchers have a first-hand observation and account of the abandoned properties. The inspection survey revealed that the inner-city neighbourhood of Oke-Fia/Alekuwodo and the peri-urban fringe of Ota-Efun have the highest number of purposes built residential and commercial properties abandoned. The nature of the abandoned properties in these zones was found to be at varying degree of disrepair, as some have overgrown vegetation with visible structural deterioration, while miscreants or squatters had converted others to makeshift shelters. This is congruent with the findings of Olatoye and Sanusi (2016), who reported that, the trend of urban expansion in the city of Osogbo has often outpaced infrastructural delivery, thereby leading to a relatively low demand in some of the new layouts and decay or decline in older part of the city that had no rehabilitation plans. Table 2 shows the spatial distribution of the identified properties abandoned in the various locations.

Table 2: Spatial Distribution of Abandoned Residential Buildings in Selected Areas of Osogbo

Location/Area	No of Abandoned Buildings	% Rate	Period of Abandonment
Okefia/Alekuwodo	31	21	More than 5years
Dada Estate/Hallelujah	54	36	More than 5years
Ota-Efun	65	43	More than 5years
Total	150	100	

Source: Field survey, (2025)

Bar Chart of Abandoned Residential Buildings by Location

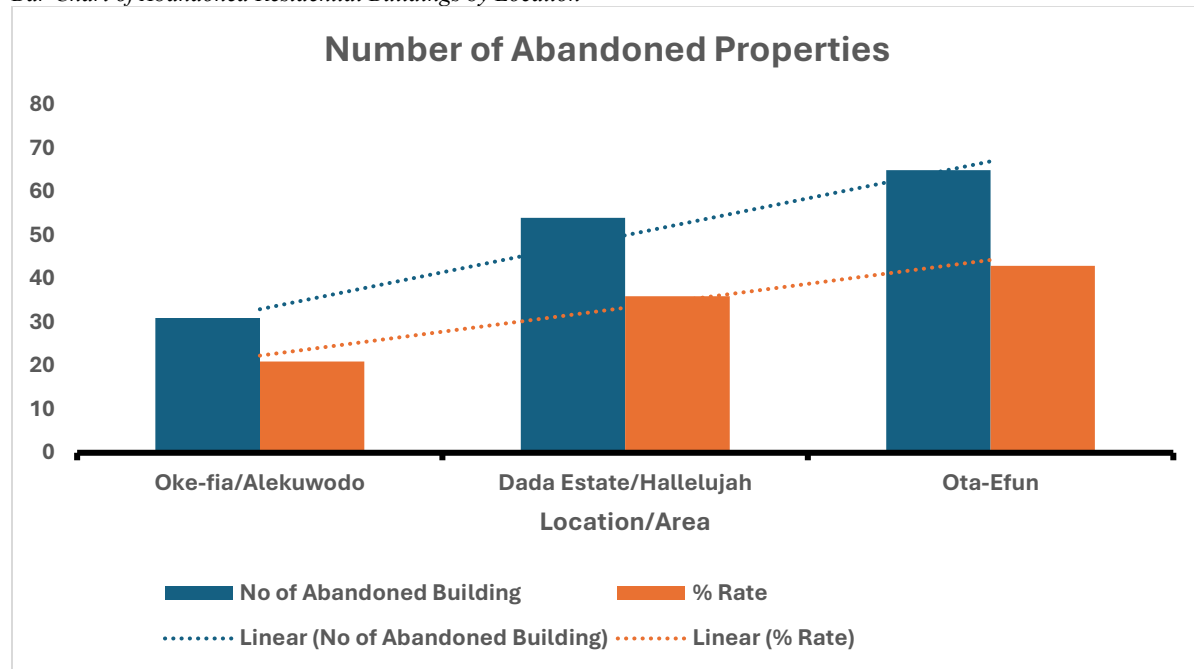


Fig. 1: A Bar Chart showing the comparative percentage rate of abandoned property

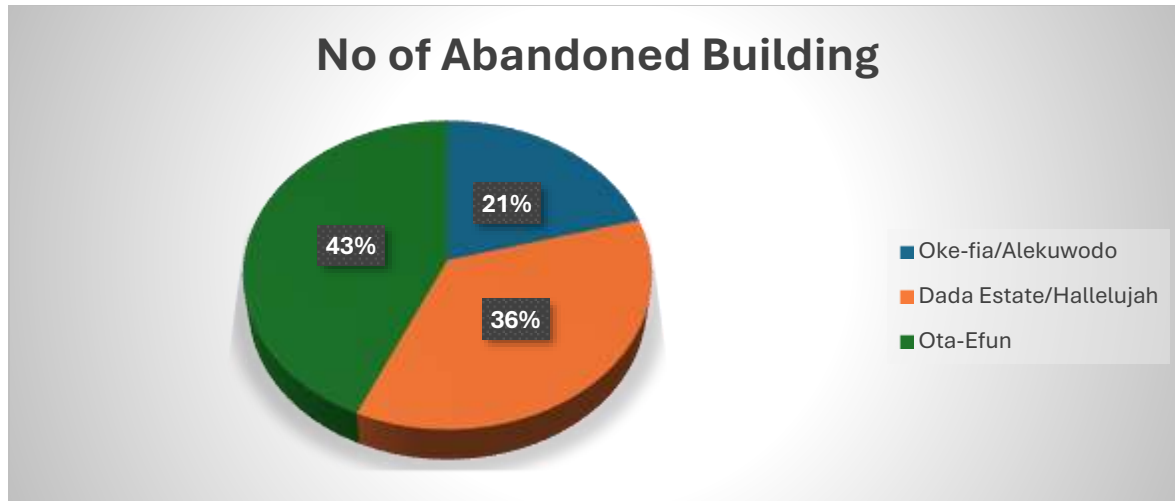


Fig. 2: Pie Chart showing the percentage rate of property abandonment

Table 2, fig 1 and 2 (bar and pie charts) revealed the percentage rate of abandonment in each of the study locations. Ota-Efun (a developing urban fringe) has the highest concentration of abandoned purpose-built residential properties (43%). The reason for the high-level residential building abandonment in the area was attributed to speculative housing development, particularly as the city core is already drenched with competing urban land uses. This further align with the thought of Olatoye & Sanusi (2016) who are of the view that speculative urban housing development often occurs in urban fringes that lack basic urban infrastructure as water, motorable roads and electricity which deters occupancy despite new construction. Dada Estate/Hallelujah area also recorded moderate high levels of property abandonment rate (36%). In these areas, economic downturns and the high cost of building material have led some property owners to suspend or dropped the idea of continuing with their construction work. Some property owners believed the current high construction costs and the low investment returns discourages them from continuing their projects.

Oke-Fia/Alekuwodo are two of the city's older neighbourhoods in the city center with relatively high rental values and has one of the least incidences of real property abandonment (21%). These areas are characterized by modern houses but with aging structures in the core areas often caught in family or inheritance disputes. Buildings in the core areas are typically traditional family houses that have been left vacant due to poor maintenance or conflicts over ownership; hence, align with the view of Ogunba (2005) on customary tenure issues.

Generally, the spatial distribution pattern of real property development project abandonment in the study location suggested a combination of the neglect of properties in the core urban area and the rapid peri-urban expansion putting excess pressure on the few available infrastructure.

4.3 Effects on the Rental Market

All the respondents agreed that real property development project abandonment has significant impact on the property rental market in the neighbourhood. Out of the variables identified in literature, four of the key variables were isolated and presented to the respondents. This was done to test the respondent's psychometric proficiency and the applicability of the variables in the study areas. Table 3 present the key variables items tested and the submission of the respondents based on their perceptions on the effects of each of the variables.

Table 3: The Effects of Abandoned Property on Rental Market of Residential Properties in the Study Area

Variables	Frequency	% Rate
Depreciation of surrounding property values	93	62
Negative perception of neighbourhoods' safety	77	51
Reduced demand for nearby rental units	72	48
Loss of revenue through unpaid property taxes	56	37

Source: Field survey, (2025)

The responses as presented in Table 3 support the findings by Akinmoladun and Oluwoye (2007), who detailed how abandoned real property developments contribute positively to urban blight and slum formation, and the reduction of investment attractiveness in the areas so affected. The qualitative data collected revealed that, property owners and tenants of nearby occupied houses frequently complained of the presence of derelict buildings as a deterrent to leasing, especially where such buildings became informal shelters for illegal squatters and criminals.

4.4 Stakeholders' Perceptions on Abandoned Projects Policy Intervention in Osogbo

The cognitive and affective workings of the stakeholders' thought towards the existing policy intervention of the government on real property project abandonment in Osogbo, the capital city of Osun state was tested using Relative Importance Index (RII), which is a suitable tool for the prioritization of indicators/variables rated on Likert type scale similar to that used by Ankeli (2023). It provided evidence on a predictors' relative importance and allows for the identification of the essential criteria based on the respondents' responses. The adoption of Likert scale become necessary as it helps in the measurement of the attitudes of the respondents by asking the respondents to provide relevant answers to series of questions contained in the questionnaires based on their conviction on the research topic concerning their extent of acceptance or otherwise; hence, tapping into the cognitive and affective workings of the respondents' attitudes.

Several recurrent themes on policy interventions of the concerned government emerged from the qualitative interviews engaged with the ten (10) key informants who are estate surveyors and valuers, local urban and regional planners, and ministry officials. From the interaction with the key informants, four specific area of interest where the respondents centered their discussions were identified. Issues in these areas were presented and their responses is presented in Table 4. it is important to note that, during the interview, a respondent from the Ministry of Lands and Physical Planning made a remark that:

"Most of the properties abandoned in Osogbo are in legal contestation that have being ongoing for decades, without any alternative dispute resolution mechanisms in place. This has contributed to these classes of properties wasting away and affecting the aesthetic of Osogbo metropolis."

This resonates with Ajayi and Omole (2015), who suggested the need for mediation and land tenure reform to be a key aspect of any meaningful housing policy in the nations' urban centers. Table 4 present details of the stakeholders thought on government policy inventions on abandoned property development project in Osogbo.

Table 4: Relative Importance Index (RII) on Policy Intervention on Abandoned Projects in Osogbo

Policy Intervention	5	4	3	2	1	Σw	RII	Ranking
Lack of an accurate inventory, databank or registry of abandoned properties	90	40	10	10	0	660	0.88	3 rd
Absence of a specific state-level policy on property revitalization	100	50	0	0	0	700	0.93	2 nd
Absence of specific financial incentives for private investors to refurbish or redevelop abandoned buildings	130	20	0	0	0	730	0.97	1 st
Need for mediation frameworks for resolving family disputes quickly.	60	40	30	5	15	575	0.77	4 th

Source: Field Survey, (2025)

4.5 The Proposed Solutions to the Challenges of Property Abandonment.

Several proposals have been put forward in literature on how to solve this and other similar issues.

Project abandonment, particularly, issues relating to the abandonment of real property development is a global phenomenon but more pronounced in developing economies. Mallach (2010) documented proposals that mirror the international best practices aimed at solving issues relating to property abandonment, and that have been adopted in the United States of America. Property rehabilitation incentives and land banking system was introduced in Cities in the United States to curb the issues of property abandonment. Some of these interventions were presented to the respondents whose positions on each of the variable are presented in Table 5.

Table 5: Proposed Solutions to the Challenges of Property Abandonment

<i>Proposed Solutions to the Challenges of Property Abandonments</i>	<i>Frequency</i>	<i>% Rate</i>
Government-led rehabilitation grants or tax waivers	87	58
Alternative dispute resolution units in local government offices	78	52
Compilation of a digital registry of abandoned properties	65	43
Conversion of abandoned buildings to social housing or public facilities	54	36

Source: Field Survey, (2025)

Table 5 revealed that the respondents were more comfortable with tax waivers for owners of abandoned projects and that government should give abandoned projects rehabilitation grants. This variable got 58%. The idea of converting abandoned projects to social housing or public facilities was not favoured by most of the respondents; hence, scored 36%.

5. Conclusion and Recommendations

The study's findings confirm that real property development project abandonment in Osogbo is driven by several factors. Among the factors are economic and financial hardship. Financial limitations and the near absence of proactive land governance, coupled with sociocultural challenges as land ownership contestation and inheritance disputes, has a profound effect on the rental market. The consequences range from increasing vacancies, deteriorating properties leading to aesthetical issues, decline in both capital and rental values of properties in the neighbourhood to the reduction in government revenue, and the systemic impediment of urban housing development.

The study therefore recommends the urgent need for a comprehensive urban renewal strategy, adoption of a contemporary land administration system that incorporate innovative policy intervention mechanism tailored towards the realities of cities in the secondary categories like Osogbo, the Osun state capital. Further, the integration of alternative dispute resolution mechanisms (ADR), spatial data capturing systems and targeted financial incentives can serve as practical entry points for reform.

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The Influence of Work Climate, Recognition, and Career Development on Teacher Performance in Primary Schools in Nakabugo Sub-county, Wakiso District, Uganda

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Abstract. This study examined the influence of work climate, recognition, and career development on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District, Uganda. A positivist cross-sectional survey design was adopted. The study involved 102 teachers selected from six primary schools using stratified and simple random sampling techniques. Data were collected using a structured questionnaire and analyzed using descriptive statistics, and inferential statistics. Results indicate that teachers had favorable attitude towards work discipline ($M=4.09$, $SD=.97$), work environment ($M=3.96$, $SD=0.84$), and recognition ($M=3.86$, $SD=1.12$) with work discipline recording the highest. Correlation results showed significant positive influence between work climate ($r = 0.477$, $p < 0.01$), recognition ($r = 0.539$, $p < 0.01$), career development ($r = 0.571$, $p < 0.01$), and teacher performance. Multiple regression analysis suggested that work climate, recognition, and career development jointly explained 34.7% of the variance (Adjusted $R^2 = 0.347$, $p < 0.001$). Career development had the most significant influence on teacher performance, while work climate and recognition had positive but statistically insignificant individual influences. The study concludes that supportive work climate and career development opportunities are beneficial for enhancing teacher performance. Study recommends reinforcing school climate, expanding professional development opportunities, and maintaining effective recognition practices to improve teacher performance.

Keywords: Work climate, Recognition, Career development, Teacher performance.

1. Introduction

Teacher performance is one of the vital areas in the education sector, owing to the fact that it is strongly influences teaching quality and learner performance. It's considered a crucial attribute of achieving the education goals and improving learner performance. Lesson delivery, teacher performance encompasses the

professional duties of a teacher, teamwork, and the institutional adherence to job expectations (Mugizi et al., 2023; Ugbe, 2024).

Globally, teacher performance has been acknowledged as critical factor for education quality and student performance. Countries such as the U.S., Finland, and Australia, and others, have established structured teacher evaluation assessment and professional development systems to enhance teaching quality, accountability, and to increase teaching standards (Ghasemi Pirbalouti et al., 2023). In East Asia, teacher performance relates to stringent teacher education programs, powerful professional culture and teacher ongoing professional development (Green & Phan, 2026).

Teacher performance across Africa has become an area of concern due to its influence on teaching and learner outcomes. Literature indicates that teacher effectiveness, effective instructional practices, a conducive working climate, and institutional support significantly influence teacher performance, although obstacles persist, including limited resources and low morale (Tabe, 2023; Bietenbeck et al., 2023).

In Uganda teacher performance is the focal policy and research issue and the concerns particularly highlight under the Universal Primary Education system. Teacher effectiveness is argued to be mediated by effective human resources management approaches, performance management, motivational, supervision and institutional support (Mugizi et al., 2023). Challenges including teacher absenteeism, lack of proper supervision and ineffective teacher performance management are still undermining instruction (Mbabazi et al., 2025).

Teacher performance in the African region have emerged as a matter of concern because of its impact on both instruction and the learner's outcomes. According to existing literature, performance of teachers is largely determined by factors such as teacher efficacy, good

pedagogy, supportive work environment and institutional supports; challenges remain, such as lack of limited resources and morale (Tabe, 2023; Bietenbeck et al, 2023). Teacher performance is a multidimensional construct that extends beyond classroom instruction to include professional responsibilities such as lesson preparation, assessment, record keeping, discipline management, meeting attendance, and effective time management (Zikanga et al., 2021). Effective instructional preparation, appropriate pedagogy, and sound assessment practices further characterize high teacher performance (Akullo & Kamanyire, 2023).

Theoretically, Elger's (2007) Theory of Performance explains that performance improves through the continuous development of knowledge, skills, and practice, while Hafeez (2021) views performance as the achievement of predetermined goals. Guided by these perspectives, this study conceptualizes teacher performance through three dimensions: lesson preparation, learner assessment, and classroom management. Scholars reveal that teacher performance is influenced by both organizational and individual factors. Well-motivated teachers tend to perform better; however, organizational factors such as burnout undermine teacher effectiveness (Forson et al., 2021; Wea et al., 2020). Accordingly, this study defines teacher performance as the extent to which teachers effectively fulfil their professional responsibilities through lesson preparation, learner assessment, and classroom management to improve learner outcomes.

1.1 Statement of the Problem

Teacher performance is a crucial factor in the quality of education and student outcomes in primary schools (Mulumba et al., 2024). Despite government efforts to improve school infrastructure, teacher welfare, and the learning environment, teacher performance in Wakiso District is still a concern. Reports show ongoing issues with lesson preparation, teacher attendance, student assessment, and record keeping, which hurt teaching effectiveness and student success (Ministry of Education and Sports, 2020/2021).

These challenges have led to less instructional time, poor service delivery, and declining student outcomes (Mugenyi et al., 2023; Sekiswa, 2025). Ssebyatika et al. (2020) noted low performance in student assessment, record keeping, and reporting. Additionally, Mulumba and Masaba (2024) connected poor teacher performance to inadequate supervision and low pay. Similarly, Kimbugwe et al. (2024) found that staffing factors, such as the teacher-student ratio and availability of teaching resources, significantly affect student achievement in Wakiso District. The Wakiso District

Local Government (2025) also points out ongoing issues that affect education service delivery and teaching quality in government-supported primary schools.

While previous studies have looked at factors like motivation, pay, staffing, and absenteeism, little attention has been paid to how work environment, recognition, and career advancement together impact teacher performance. This study aims to explore the influence of these organizational factors on teacher performance in primary schools in Nakabugo Sub-county, Wakiso District.

1.2 Purpose of the study

The study aimed to examine the influence of work climate, recognition, and career development on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District. Specifically, the study had the following specific objectives;

To examine the influence of recognition on teacher performance in primary schools in Nakabugo Sub-County.

To determine the influence of career development on teacher performance in primary schools in Nakabugo Sub-County.

To examine the combined influence of work climate, recognition, and career development on teacher performance in primary schools in Nakabugo Sub-County.

1.3 Research Questions

The following are research questions that guided the study:

- How does work climate influence teacher performance in primary schools in Nakabugo Sub-County, Wakiso District?
- What is the effect of recognition on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District?
- How does career development influence teacher performance in primary schools in Nakabugo Sub-County, Wakiso District?
- What is the combined influence of work climate, recognition, and career development on teacher performance in primary schools in Nakabugo Sub-County?

1.4 Hypotheses

The following hypotheses were stated and was tested at 0.05 level of significance:

H01: Work climate has no significant influence on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District.

H02: Recognition has no significant influence on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District.

H03: Career development has no significant influence on teacher performance in primary schools in Nakabugo Sub-County, Wakiso District.

H04: Work climate, recognition, and career development have no significant combined influence on teacher performance in primary schools in Nakabugo Sub-County.

2. Literature review

2.1 Theoretical Review

This study is built on the Two-Factor Theory (1959) by Herzberg cited in Herzberg (1987) which accounts for employees' performance in terms of two sets of variables: hygiene factors and motivators. Hygiene factors include work condition and the working environment. They prevent satisfaction but eliminate dissatisfaction in a workplace, while motivators include recognition, achievement, and career development that enhance satisfaction and performance in a workplace (Herzberg, 1987; Alshmemri et al., 2017). For this study work climate was considered as a hygiene factor while recognition and career development were considered as motivation factors to boost the teacher performance. However, the theory has been critiqued for failing to distinguish between the "hygiene factors and motivation factors as some workplace factors may function as both depending on the context (Alshmemri et al., 2017).

It also gives limited attention to broader organizational influences on employee behaviour. In addition to Herzberg's theory, the study considered Expectancy Theory (Vroom, 1964), which postulates that employees are motivated when they believe their effort will yield rewards for their effort for good performance. Moreover, according to Vroom et al. (2015), motivation, performance, and reward are intrinsically related in a cyclic pattern. Applied to this study, the two theories suggest that teacher performance is likely to improve when schools provide a supportive work climate, recognize teachers' contributions, and offer opportunities for career development.

2.2 Work Climate and Teachers' Performance

Work climate refers to teachers' views of their working climate, including leadership support, communication, relationships among colleagues, and access to teaching resources that influence their attitude and performance (Mbabazi & Balojja, 2023; Ugbe, 2024). A conducive work climate enhances teachers' commitment, collaboration, and teaching effectiveness, whereas an unfavorable work climate culminates in absenteeism,

low morale, and low performance (Noorhapizah et al., 2023; Aladetan, 2023). In this study, work climate is operationalized through communication, social relations, and learning resources. Research indicates that work climate influences teachers' performance in most cases. Scholars have shown that supportive organizational climates boost teachers' motivation, instructional effectiveness, and their general performance at the workplace (Noorhapizah et al., 2023; Yolviansyah et al., 2024; Setyarini, 2025). In Nigeria and other contexts, it has been demonstrated that physical and psychosocial work environments strengthen teacher performance and schools' effectiveness (Aladetan, 2023; Mahmood et al., 2024).

However, findings remain inconsistent across contexts. While Ugbe (2024) reported that school climate significantly improves teachers' job performance, Rudin et al. (2024) identified teacher quality as a stronger predictor of educational outcomes. Other studies emphasize that leadership and organizational culture interact with work climate, making it difficult to isolate its independent effect on teacher performance (Sambomalilin & Ni'matullah, 2024).

Previous studies also differ conceptually, theoretically, and methodologically. Work climate has been variously defined to emphasize leadership, communication, collegial relationships, physical resources, or organizational culture, resulting in inconsistent operationalization across studies (Sari, 2024; Mahmood et al., 2024). However, findings yield disparate results across contexts. While Ugbe (2024) concluded that school climate increases teacher's job performance to a large extent, Rudin et al. (2024) identified teacher quality as a stronger determinant of student performance than school climate. Conversely, other researchers argue that the relationship between leadership and the culture of an organization interacts with work climate, making its effect on teacher performance unexplainable (Sambomalilin & Ni'matullah, 2024).

In addition, earlier studies differ conceptually, theoretically, and methodologically. 'Work climate' has been defined to emphasize leadership, communication, social relatedness, physical resources, or organization, thereby leading to varied operationalization among researchers. (Sari, 2024; Mahmood et al., 2024). Most studies utilized positivist cross-sectional designs, which examine statistical associations but are unable to capture teachers lived experiences. Additionally, most of the studies are from Asian countries and Nigeria, with relatively few studies conducted in Uganda. This contextual gap underscores the need to examine the influence of work climate and recognition on teachers' performance in Ugandan government-aided primary schools.

2.3 Recognition and Teachers' Performance

"Recognition" refers to the process of expressing or formally indicating acceptance and appreciation of an employee's actions and performance through formal and informal processes such as praise, awards, certificates, promotions, and public appreciation (Armstrong & Taylor, 2014; Odhiambo et al., 2023). In this study, recognition is operationalized through appreciation for teachers' work, rewards for good performance, recognition in school activities, and promotions. The empirical literature indicates that recognition boosts the motivation, commitment, satisfaction and effectiveness of teachers at the workplace. Several Kenyan and Nigerian studies reported better teacher's commitment, effectiveness in the classroom, commitment to the organization and accountability among those who consistently received regular informal and formal recognition Khaemba et al., 2024; Ogbu & Ngwu, 2025). Recognition can be enhanced by pairing with other motivators like career development and promotions (Ndirangu & Mungai, 2024).

Evidence of these observations were recorded in the Philippines with awards and official recognitions improving teachers' moral and professionalism (Lim, 2021). Nevertheless, lack of consensus as to what exactly constituted a formal reward in the concept of verbal recognition, career development or award still persists.

Most of the studies concentrated on a quantitative approach, providing fewer insights into teachers' lived experiences. Additionally, most are concentrated in Kenya, Nigeria, and the Philippines, with a particular focus on Uganda's government-aided primary schools. These conceptual, methodological, and contextual discrepancies justify further examination into the influence of recognition on teachers' performance.

2.4 Career Development and Teachers' Performance

O'Reilly et al. (2020) conceptualize career development as a continuous process of managing and advancing one's professional growth through the acquisition of skills, experiences, and learning opportunities that shape an individual's career trajectory. It involves planned and unplanned activities that support progression, adaptability, and effectiveness within a chosen profession. In education settings, this implies ongoing professional learning, skill enhancement, and progression opportunities that enable teachers to improve their competence and performance over time (Wyatt, 2024). In this study, career development was operationalized through indicators such as access to in-

service training, participation in workshops, professional development opportunities, and support for career advancement. In this study, career development refers to teachers' opportunities for professional growth through training, workshops, and support for career advancement that enhance their competence and performance.

Several studies report positive effects of career development on teachers' performance. Malebe et al. (2024) established that professional development significantly improves teachers' work performance in Kenyan public primary schools. Similarly, Mduma and Mkulu (2021) found that continuous professional development enhances teachers' instructional effectiveness and overall job performance in Tanzania. Geletu et al. (2022) further demonstrated that continuous professional development aligns positively with teachers' performance evaluation and career growth in Ethiopia. Supporting these findings, Adu et al. (2023) similarly concluded that continuing professional teacher development contributes to improved teacher effectiveness and learner achievement in South Africa.

However, studies also reveal challenges affecting career development. Mahlaela (2024) reported that school leaders experience difficulties implementing effective professional development programmes because of financial and organizational constraints. Wyatt (2024) similarly identified barriers to continuous professional development, particularly inadequate ICT training opportunities in rural primary schools. Sadovets (2021) further observed inconsistencies between teacher competence frameworks and career development systems across European countries, suggesting that professional development opportunities remain uneven across educational systems.

Conceptually, researchers define career development differently. Some studies focus on continuous professional development (Geletu et al., 2022), others emphasize career growth and promotion (Sadovets, 2021), while others examine professional learning, teacher competence, or lifelong learning. These varying conceptualizations create inconsistencies regarding what constitutes career development and which dimensions most strongly influence teachers' performance.

Theoretically, most studies rely on Human Capital Theory, Social Cognitive Career Theory, adult learning theory, and teacher professional development models. However, relatively few studies integrate organizational support, motivation, and career development theories within a single explanatory framework. Consequently, the mechanisms through which career development influences teachers' performance remain insufficiently explained.

Methodologically, the reviewed literature is dominated by quantitative surveys and literature

3. Research Methodology

The study adopted a quantitative cross-sectional survey design to examine the influence of recognition and career development on teacher performance. The design was appropriate because it enabled data collection at a single point in time and statistical analysis of relationships among the study variables. This study was carried out in Nakabugo Sub County of Wakiso District, Uganda, among teachers of the selected six primary schools, which are St. Johnson Primary School, Saviour Junior School, Bright Way Junior School, Little King Children's Centre, Africa Junior School, and Step by Step Primary School. The study population was 150 teachers. The study comprised a sample of 108 respondents selected using the Krejcie and Morgan (1970) sample size table. The stratified random sampling technique was used to obtain a representative sample of teachers from each of the six schools based on proportionate allocation to the size of schools. Then a simple random sampling technique was applied to pick individual teachers from each stratum.

Data was collected using a structured questionnaire that measured in a five-point scale, a Likert scale of 1 (strongly disagree) to 5 (strongly agree). Work climate measured in terms of communication, teamwork, leadership support, resource availability, and fair in management (Mbabazi & Balojja, 2023). Recognition was measured as appreciation, rewards, acknowledgement, and promotion opportunities (Hussain et al., 2019). Career development comprised of in-service training, workshops, professional development opportunities, and career advancement support (Odhiambo et al., 2023). Teacher performance includes indicators such as lesson preparation, effectiveness of teaching, learner assessment, classroom management, record keeping, and punctuality (Akullo & Kamanyire, 2023).

3.1 Data Collection, Validity, Reliability and Data Analysis

Data were collected using a structured questionnaire adapted from validated instruments used in previous studies on work climate, recognition, career development, and teacher performance (Noorhapizah et al., 2023; Odhiambo et al., 2023; Malebe et al., 2024). The questionnaire consisted of closed-ended items measured on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Content validity was established through expert review by academic supervisors and educational management

specialists who assessed the clarity, relevance, and adequacy of the items. Their recommendations were incorporated to improve the instrument.

Data were obtained through a structured questionnaire adapted from a number of similar and validated questionnaires that have been used in previous studies concerning the work climate, recognition, career development, and performance of the teacher (Noorhapizah et al., 2023; Odhiambo et al., 2023; Malebe et al., 2024). Questionnaire items were close-ended with a five-point Likert scale where 1 stands for Strongly Disagree and 5 for Strongly Agree.

The content validity was determined by education management experts to check for accuracy, relevance and adequacy of the item. The advice of these reviewers was then used to refine the instrument. The data were coded and entered into SPSS statistical software for analysis. Descriptive statistics in terms of frequencies, percentages, mean, and standard deviations were used to describe respondents' demographics and study variables Pearson correlation and multiple regression were used to determine the influence of work climate, recognition, and career development on teacher performance. The significance level was taken at $p < 0.05$. A pilot study was carried out in schools with similar settings to that of the area for the main study except that it was not included in the study. The reliability of the internal consistency was tested by means of the Cronbach alpha reliability test. A coefficient greater than or equal to 0.70 was regarded as acceptable

3.2 Data Analysis

Data collected was checked, coded and entered into SPSS Software package. Data analysis procedure consisted of: Descriptive Statistics; Frequency and percentages (to describe the personal information of the respondents and the study variables, e.g. Work climate, recognition and career development), Means and Standard Deviations (to summarize the study variables). -Pearson Product-Moment Correlation analysis; to determine the correlation between work climate, recognition and career development with teacher performance. -Multiple Linear Regression analysis; to determine the influence of work climate, recognition and career development jointly and individually to teacher performance. -Assumptions for Multiple Linear Regression analysis namely Multicollinearity was assessed by assessing the Tolerance Values and the Variance Inflation factor (VIF). Ethics were observed in the following ways: Gaining institutional approval; Seeking participants informed consent; Ensuring confidentiality and anonymity; Providing an accurate report of the study results.

4. Results

4.1 Descriptive Statistics

Table 1: Descriptive Results for Demographic Characteristics

Characteristic	Category with Highest Representation	Frequency	Percent (%)
Age of respondents	30 years and above	40	39.2
Gender	Female	67	65.7
Type of school	Public	52	51.0
Teaching experience in the current school	Three years and above	41	40.2
Teaching frequency per week	Five times	59	57.8
Subject taught	English	33	32.4

The findings, in table one, suggest that most respondents were 30 years and above (39.2%), female (65.7%), and from public schools (51.0%). The largest percentage had three years and above of teaching experience in their current schools (40.2%), taught five times per week (57.8%), with expertise in English (32.4%). Generally, the demographic profile suggests that the respondents were active professional and experienced teachers engaged in classroom instruction and therefore well positioned to provide reliable information on the study variables.

Table 2: Mean and Standard Deviation of Academic performance

Construct	Mean	Standard deviation
Lesson preparation	4.13	1.00
Learner assessment	4.19	1.05
Classroom Management	4.094	0.97

Table 2 revealed that teacher respondents received good scores for all aspects. Learner assessment received the highest average score ($M = 4.19$, $SD = 1.05$), followed by preparation of lessons ($M = 4.13$, $SD = 1.00$) while classroom management got the lowest average mean ($M = 4.09$, $SD = 0.97$). Therefore, it is clear that teachers are competent in terms of preparation of lessons, learners' assessment and classroom management and the small standard deviation scores indicates the agreement of the respondents on the scores.

Table 3: Mean and Standard Deviation of WD, WC, and R

Construct	Overall Mean	Overall SD
Work Discipline (WD)	4.09	0.97
Work Climate (WC)	3.97	1.08
Recognition (R)	3.81	1.10

The findings show that teachers generally had favorable perceptions of work discipline, work climate, and recognition. Work Discipline ranked the highest ($M = 4.09$, $SD = 0.97$, SA), suggesting strong commitment to punctuality, task completion, and professional conduct. Work Climate was rated favorably ($M = 3.97$, $SD = 1.08$, A), indicating that teachers perceive their school environment as conducive. Recognition had the list score ($M = 3.81$, $SD = 1.10$, A) but remained positive, indicating that teachers feel appreciated, though recognition practices could be strengthened. Overall, the results suggest working environment was encouraging among teachers.

4.2 Testing Hypotheses

Pearson Correlation of Work Climate, Recognition and Career Development WC, R, and CD

The individual influence of WC, R, and CD on teacher performance was studied. A Pearson correlation coefficient was calculated to establish the influence of work climate on teacher performance. The findings of Pearson correlation analysis were reported in Table 4

Table 4: Pearson correlation of WC, R, and CD

Independent Variable	Pearson Correlation (r)	Sig. (2-tailed)	N
Work Climate (WC)	0.477	0.000	102
Recognition (R)	0.539	0.000	102
Career Development (CD)	0.571	0.000	102

The correlation results showed that work climate, recognition, and career development had positive and significant influence on teacher performance ($p < 0.01$). Career development indicated the strongest influence ($r = 0.571$, $p = 0.000$), followed by recognition ($r = 0.539$, $p = 0.000$) and work climate ($r = 0.477$, $p = 0.000$). These findings indicate work

climate, recognition, and career development significantly influence teacher performance. Hence forth, the null hypotheses (H01, H02, and H03) were rejected.

4.3 H04: Work climate, recognition, and career development have no significant combined relationship with teacher performance in primary schools in Nakabugo Sub-County.

Table 5: Multiple regression analysis between Work Climate, Recognition, Career Development, and Teacher Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606	0.367	0.347	8.84128

The multiple regression model revealed a statistically significant influence of work climate, recognition, and career development on teacher performance ($R = 0.606$). This indicates that the combination of three independent variables predicts about 36.7% of the variance in job performance of teachers ($R = 0.367$, Adjusted $R^2 = 0.347$). The remaining 65.3% of the variance may be accounted for by other factors not included in the model, namely remuneration, workload, motivation, supervision, and individual characteristics. Generally, work climate, recognition, and career development significantly influence teacher performance.

Table 6: ANOVA on the influence of WC, R, and CD on Teacher performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	4438.855	3	4438.855	18.929	.000
Residual	7660.488	98	7660.488		
Total	12099.343	101			

The ANOVA table above shows that the overall multiple regression equation is significant, $F(3, 98) = 18.929$, $p < .001$. Work climate, recognition, and career development significantly influence teachers' performance. The null hypothesis (H04), which postulated work climate, recognition, and career development on teachers' performance have no significant combined influence on teacher performance in primary schools in Nakabugo Sub-County, was rejected.

Table 7: Correlation coefficient between WC, R, CD and teacher performance

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	Statistics VIF
(Constant)	31.201	4.005		7.790	.000		
Work Climate	.323	.201	.177	1.608	.111	.536	1.867
Recognition	.310	.378	.125	.821	.414	.280	3.576
Career Development	.755	.286	.370	2.645	.010	.330	3.026

The regression coefficients revealed the individual influence of work climate, recognition, and career development on teacher performance in primary schools of Nakabugo Sub-county, Wakiso District. The had career development a positive and significant influence on teachers' performance in the primary schools of Nakabugo Sub-county, Wakiso District ($\beta = .370$, $t = 2.645$, $p = .010$). Nevertheless, work environment ($= .177$, $t = 1.608$, $p = .111$) and recognition ($= .125$, $t = 0.821$, $p = .414$) were not statistically significant but provided positive coefficient for teacher performance. The tolerances vary from .280 to .536 and VIF range from 1.867 to 3.576, therefore multicollinearity was not a matter.

5. Discussion

The study revealed that work climate significantly influenced teacher performance ($r = 0.618$, $p < 0.001$), making it the strongest influencer of the three variables. This result aligns with earlier studies indicating that collegial relationships, supportive communication, and

adequate resources improve teachers' motivation and effectiveness (Noorhapizah et al., 2023; Aladetan, 2023; Yolviansyah et al., 2024).

The correlation showed a significant influence of recognition on teacher performance ($r = 0.539$, $p < 0.01$). Nevertheless, the regression model did not have a significant influence ($= 0.045$, $p = 0.646$). This finding partially supports the works of Odhiambo et al. (2023), Khaemba et al. (2024), and Lim (2021), which revealed that recognition can enhance teacher motivation, commitment, and effectiveness. However, our findings imply that recognition alone cannot influence teacher performance when considering working climate and career development together. This finding partially supports Herzberg's Two-Factor Theory and Vroom's Expectancy Theory, which argue that when working conditions are good, employees can enhance the effectiveness of recognition.

Career Development had a moderately significant influence on teacher performance ($r = .571$, $p < .01$). (=

0.288, $p=0.002$). This is supported by past studies that reveal professional development positively influences the performance of teachers in relation to their competence, motivation, and delivery of instructions (Odhiambo et al, 2023; Ndirangu & Mungai, 2024). It aligns with Herzberg's work that an avenue to advance within a workplace can be a motivator, and according to Vroom's Expectancy theory, a teacher is motivated to perform a task when they expect their performance on the task to be rewarded, and professional development that results in career advancement is perceived to deliver this.

The multiple regression analysis revealed that the variables of work climate, recognition, and career development collectively influence teacher performance ($F=18.929$, $p < 0.001$), accounting for 36.7% variance in teacher performance ($R=0.367$). These findings implied that teachers' performance is influenced by a host of organizational and psychological factors, but others that have not been studied are also affecting teachers' performance. In general, the findings are supportive of Herzberg's Two-Factor theory and Vroom's Expectancy Theory. Both theories' postulates have been demonstrated, with a supportive working environment and the opportunity for career growth having the greater impact on teachers' performance compared to recognition alone.

6. Conclusions

Based on the findings, work climate and career development significantly influence teacher performance in primary schools in Nakabugo Sub-County, Wakiso District. Although recognition influences teacher performance, it does not independently influence teacher performance after adjusting for work climate and career development. Work climate, recognition and career development as combined, they influence teacher performance hence emphasizing the role of supportive school environment and investing in teachers' careers, work environment must be improved and career development made accessible to teachers, while keeping the practice of recognizing good works for the motivation purpose.

7. Recommendations

School leaders are suggested to further reinforce work climate to promote teachers' performance through improve the climate factors such as improved communication, cooperation, supportive leadership, perceived procedural fairness, availability of teaching and learning resources.

The Ministry of Education and Sports and school heads are to continue emphasis on career development

programmes in schools that include effective in-service courses, in-house training, mentorship and further education of teachers so as to improve their professional skills and competence.

Though, recognition was not found to be significant predictor on performance, schools ought to practice the consistent use of appreciation, construct feedback, rewards and promotions in order to keep the morale of their teachers up.

The adoption of an approach integrating the use of strategies focusing on improving the climate, developing careers, and giving recognition should be used to boost the continuous performance of teachers.

8. Limitations of the Study

The study had some limitations. First, given that the study adopted a cross-sectional approach, a direct inference on causality among the study constructs could not be made directly, however this was mitigated through appropriate use of statistical analysis tools of Pearson's correlation, as well as multiple regression for the purpose of finding direction and the degree of correlation between the study variables. Second, the study relied on self-reported questionnaire data, which may have been affected by response bias. To minimize this, respondents were assured of anonymity and confidentiality, encouraging honest responses. Third, the study was limited to six primary schools within one sub-county, which may constrain the generalizability of the findings, though adequate efforts were made to ensure participation using the stratified random technique from within participating schools.

Despite these limitations, the research generated practical evidence on the influence of work climate, recognition, and career development on teacher performance.

9. Areas for Further Research

Future studies should examine other factors that influence teacher performance not covered in this study, such as teacher motivation, leadership styles, supervision practices, workload, remuneration, and job satisfaction. In addition, further research could adopt longitudinal and mixed-methods approaches to provide deeper and more comprehensive insights into how school-related factors influence teacher performance over time.

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Blockchain Technology for Enhancing the Reliability of Accounting Records

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Abstract. This study examines the role of blockchain technology in enhancing the reliability of accounting records and improving the quality of accounting information. This research addresses the challenges of data manipulation, information inaccuracy, and limited transparency in traditional accounting systems, with the aim of assessing how blockchain technology can enhance trust in financial information and improve auditing processes. The study adopts an analytical approach to examine the characteristics and applications of blockchain technology in accounting. Blockchain technology works through a decentralized and distributed ledger that securely records transactions using encryption techniques, ensuring data integrity, transparency, and immutability. These features greatly reduce the risk of unauthorized alterations, enhance the reliability of accounting records, facilitate real-time transaction processing, and reduce reliance on intermediaries. The results indicate that the adoption of blockchain technology improves the quality and reliability of financial reporting, reduces accounting errors and fraud risks, enhances transparency and audit efficiency, and strengthens stakeholder confidence in financial information. Consequently, blockchain represents a transformative technology capable of supporting the modernization and efficiency of contemporary accounting systems and the accounting profession.

Keywords: Blockchain Technology; Accounting Records; Financial Reporting Quality; Audit Efficiency; Data Integrity; Transparency.

1. Introduction

Research Problem: Despite the development of various technologies to improve the accuracy and security of accounting systems, challenges related to

data manipulation, fraud, human error, and limited transparency continue to affect the reliability of accounting records. Blockchain technology has emerged as an innovative solution capable of enhancing data integrity, transparency, and trust in financial information. However, its adoption in accounting systems raises important questions about its effectiveness and application.

Accordingly, this study seeks to answer the following research questions:

1. How can blockchain technology improve the reliability and integrity of accounting records?
2. What are the main challenges associated with implementing blockchain technology in accounting systems?
3. To what extent does the adoption of blockchain technology improve the efficiency and effectiveness of auditing processes?

Research Importance: The rapid development of blockchain technology and the expansion of its applications have increased its importance in various industries, especially in the financial and accounting sectors. Thanks to its decentralized structure, cryptographic security, and immutability of data, blockchain technology has the potential to improve the reliability, transparency, and efficiency of accounting systems. The importance of this study can be summarized as follows:

Enhancing the reliability of accounting records through the immutability of blockchain technology. Blockchain technology provides a secure and immutable distributed ledger that prevents unauthorized modification of accounting records. By ensuring data integrity and traceability, this enhances the credibility of financial information and strengthens stakeholder

confidence in accounting records. This study provides a conceptual framework that can help organizations adopt blockchain technology to improve the reliability and security of their accounting systems.

Improving the efficiency of accounting and auditing through automation and smart contracts

Blockchain technology, along with smart contracts, enables the automation of accounting transactions and auditing procedures, reducing human error, minimizing fraud risks, and improving operational efficiency. Furthermore, this technology enhances transparency by creating verifiable and tamper-proof records, which facilitates auditing activities and supports regulatory compliance. The results of this study may also provide useful insights for policymakers and regulatory authorities in developing governance frameworks and standards for adopting blockchain technology in financial reporting and auditing.

Research Objectives: This study aims to examine the role of blockchain technology in enhancing the reliability of accounting records and improving the quality of financial information. Specifically, the study seeks to:

Analyzing the relationship between the adoption of blockchain technology and the reliability of accounting records.

Study how the immutability of blockchain technology can reduce accounting manipulation, fraud, and human error.

Evaluating the contribution of blockchain technology to improving the efficiency and effectiveness of auditing processes.

Assessing the potential of blockchain technology to enhance transparency, data integrity, and stakeholder confidence in financial reporting.

Research Hypotheses: Based on the research objectives, the study proposes the following hypotheses:

Hypothesis 1 (H1): There is a statistically significant positive relationship between the adoption of blockchain technology and the reliability of accounting records by reducing accounting manipulation, fraud, and human error.

Hypothesis 2 (H2): There is a statistically significant positive relationship between the adoption of blockchain technology and the efficiency and effectiveness of accounting audits.

First Section

1.1 Blockchain Technology: Concept and Definition

Blockchain technology is a decentralized, distributed ledger system that enables the secure recording, verification, and storage of transactions across a network of interconnected computers (nodes). Unlike traditional centralized databases, blockchain relies on cryptographic techniques and consensus mechanisms to validate transactions before permanently recording them. Once verified, transactions are grouped into chronologically linked blocks, creating an immutable chain of records that cannot be altered without the consent of network participants.

From an accounting perspective, blockchain technology acts as a transparent and secure digital ledger that records financial transactions, contractual agreements, ownership rights and other business events in a verifiable and traceable manner. Because the registry is shared among authorized participants rather than being controlled by a single entity, it promotes transparency, accountability, and trust while reducing the risk of unauthorized alterations and fraud.

Therefore, blockchain technology can be considered an advanced accounting information system that facilitates the secure management of financial data on a global scale. Its decentralized structure, along with cryptographic security and data immutability, enhances the reliability, integrity, and credibility of accounting records, while supporting more efficient auditing and financial reporting processes.

Accordingly, blockchain technology represents one of the most important technological innovations in modern accounting, as it provides a secure, transparent, and tamper-proof environment for recording and verifying financial transactions, thereby improving the quality and reliability of accounting information.

1.2 The Concept and Evolution of Blockchain Technology

Blockchain technology was introduced in 2008 by an anonymous individual or group known as Satoshi Nakamoto through the publication of the Bitcoin white paper, titled "Bitcoin: A Peer-to-Peer Electronic Cash System." The primary objective was to address the "double-spending" problem in digital currencies by enabling secure peer-to-peer transactions without relying on trusted third-party intermediaries. To achieve this, Nakamoto proposed a decentralized, distributed

ledger that records transactions transparently, securely, and permanently, thereby creating an immutable audit trail.

Although blockchain technology gained global recognition with the emergence of Bitcoin in 2008, its basic concepts originated much earlier. The foundations of blockchain technology can be traced back to 1991, when Stuart Haber and W. Scott Stornetta developed encryption methods to secure digital documents against tampering. In 1998, Nick Szabo proposed the concept of Bit Gold, a decentralized digital currency that incorporated many of the principles later adopted by blockchain systems. These pioneering contributions culminated in Nakamoto's implementation of the first operational blockchain network in 2009 as a public ledger supporting Bitcoin transactions.

Blockchain technology has since evolved beyond cryptocurrencies to become a versatile technology with applications in finance, accounting, supply chain management, healthcare, and public administration. According to the Oxford Dictionary, blockchain technology is a system that records transactions related to Bitcoin and other cryptocurrencies across multiple computers connected through a peer-to-peer network. Wang Weiyuan (2018) defines blockchain technology as a continuously growing chain of cryptographically secure blocks, which ensures data integrity, transparency, and resistance to unauthorized modification.

From a business and accounting perspective, blockchain technology can be described as a decentralized platform that enables reliable transactions without the need for a central authority. Each transaction is recorded in a block, and each verified block is permanently linked to the previous block, forming an immutable chain that is repeated across all participating nodes. This distributed architecture enhances transparency, strengthens data security, improves auditability, and increases the reliability of accounting records.

1.3 Core Components of Blockchain Architecture

Blockchain architecture relies on several interconnected components that collectively ensure the security, transparency, and integrity of recorded transactions. Key components include the block, transaction data, cryptographic hashing, and the timestamp.

The block

The block is the basic unit for storing data in blockchain

technology. It contains a set of validated transactions that are grouped together before being permanently added to the distributed ledger. Once a block is validated by the network's consensus mechanism, it is linked to the previous block, forming an immutable time series of records.

Transaction data

Transaction data represents the information stored within each block. Depending on the application, this data may include financial transactions, property records, contractual agreements, or other digital events. Each transaction is verified before it is recorded, ensuring the accuracy and integrity of the information stored on the blockchain.

Cryptographic hash

A cryptographic hash is a unique digital identifier that is created from the contents of a block using a cryptographic hashing algorithm. Each block contains its own hash in addition to the hash of the previous block, creating a secure connection between successive blocks. Any attempt to alter data within a block changes its hash value, immediately revealing unauthorized modifications and maintaining the immutability of the blockchain.

Timestamp

The timestamp records the exact date and time at which a block was created and added to the blockchain. This system establishes the chronological order of transactions and contributes to maintaining a transparent, traceable, and verifiable record of all activities recorded in the distributed ledger.

Together, these components form a secure and decentralized registry that protects accounting records from unauthorized alteration, enhances data integrity, and provides a reliable path for auditing financial transactions.

1.4 Key characteristics of blockchain technology

Blockchain technology has many distinctive characteristics that have made it one of the most influential innovations in modern information systems, especially in accounting and financial reporting. These characteristics contribute to enhancing the reliability, security, and efficiency of accounting information.

Transparency: Blockchain technology provides a

transparent environment in which authorized participants can access a shared and synchronized copy of the distributed ledger. Every verified transaction is permanently recorded and traceable throughout its lifecycle, improving accountability, increasing confidence in financial information, and facilitating audit procedures.

Efficiency and speed: Blockchain technology simplifies transaction processing by automating verification procedures and reducing reliance on intermediaries. In many business applications, this leads to faster transaction processing, lower administrative costs, and improved operational efficiency, especially when combined with smart contracts.

Security: Blockchain technology achieves a high level of security through cryptographic encryption, distributed data storage, and consensus mechanisms. Each transaction must be verified before it is recorded, and each block is linked to the previous block via encryption techniques; As a result, unauthorized modifications become extremely difficult, greatly reducing the risk of fraud and cyberattacks.

Decentralization: Unlike traditional centralized systems that rely on a single trusted authority, blockchain technology operates through a decentralized network where transactions are collectively validated by network participants using consensus mechanisms. This design reduces reliance on intermediaries, improves system flexibility, and lowers operating costs.

Immutability: One of the defining features of blockchain technology is the immutability of the recorded data. Once transactions are validated and added to the blockchain, they cannot be modified or deleted without invalidating the entire chain. This feature maintains data integrity, enhances the reliability of accounting records, and provides a permanent and verifiable audit trail.

Anonymity and privacy: Blockchain technology allows users to conduct transactions through encrypted digital addresses instead of directly revealing their personal identities. This approach, which uses pseudonyms, enhances user privacy while maintaining transaction traceability and accountability within the network, in accordance with the governance model of the blockchain platform.

Collectively, these characteristics make blockchain technology a reliable technological infrastructure for accounting systems by promoting transparency, security, efficiency, data integrity, and confidence in financial reporting.

Section Two

2.1 Blockchain technology applications in accounting and its importance

Blockchain technology was initially developed to support cryptocurrency transactions, especially Bitcoin. However, its applications have expanded significantly and it is now widely adopted in various industries, including accounting, auditing, finance, supply chain management and corporate governance. In the accounting profession, blockchain technology has introduced new methods for recording, verifying, and managing financial transactions, leading to improved quality, reliability, and transparency of the accounting information system.

The adoption of blockchain technology has changed traditional accounting practices through the application of distributed ledger technology (DLT). Unlike traditional centralized accounting systems, a distributed ledger stores identical copies of transactions that have been verified across multiple participants in the network. Once transactions are verified through consensus mechanisms and recorded on the blockchain, they become immutable, meaning they cannot be modified or deleted without compromising the integrity of the entire record. This feature greatly improves data integrity, transparency, and auditability.

Furthermore, blockchain technology enables the instant verification and recording of accounting transactions, allowing organizations to maintain accurate and up-to-date financial information. As a result, financial statements can be prepared with greater reliability, transparency, and timeliness, while reducing the risks of human error, fraud, and unauthorized data manipulation.

Instead of replacing the traditional double-entry bookkeeping system, blockchain technology complements it with the concept of triple-entry bookkeeping. In addition to the traditional debit and credit entries, a third entry is created that is cryptographically verified and stored in the shared blockchain ledger. This independently verifiable record enhances trust among stakeholders, improves audit efficiency, and provides a permanent and tamper-proof record of financial transactions.

In general, integrating blockchain technology into accounting information systems contributes to improving transaction security, the quality of financial reports, regulatory compliance, and the overall

effectiveness of accounting and auditing practices.

2.2 The impact of blockchain technology on the availability and accessibility of accounting and financial information

Blockchain technology has fundamentally transformed the way accounting and financial information is recorded, stored, accessed, and verified. By providing a decentralized and distributed ledger, blockchain technology enables authorized participants to access reliable and up-to-date financial information while maintaining high standards of security, transparency, and data integrity. These capabilities have made blockchain technology one of the most influential technological innovations in modern accounting information systems.

One of the key advantages of blockchain technology is its ability to enhance the accuracy, integrity, and transparency of accounting records throughout their lifecycle. Every verified transaction is permanently recorded in chronological order and cryptographically linked to previous records, creating a complete and tamper-proof audit record. This structure facilitates the efficient retrieval, verification, and analysis of historical accounting information.

Blockchain technology also reduces the need for manual matching and repeated verification procedures by providing a common and reliable source of financial data. Therefore, organizations can reduce administrative costs, minimize human errors, improve operational efficiency, and speed up financial reporting and auditing processes.

Furthermore, the transparency and traceability provided by blockchain technology enhances regulatory compliance, supports corporate governance, and improves stakeholder confidence in financial information. This technology also facilitates the secure exchange of data between institutions, auditors, regulators and other authorized parties, through a distributed infrastructure that simplifies transaction settlement and verification processes.

In general, blockchain technology positively impacts the qualitative characteristics of accounting information by enhancing reliability, transparency, timeliness, verifiability, and accessibility. These improvements contribute to better decision-making, increased audit

effectiveness, and higher quality financial reporting, making blockchain technology a valuable technical foundation for modern accounting systems.

Practical Aspect

Field Study and Statistical Analysis

This chapter presents the experimental component of the study and provides a statistical analysis of the data collected. The field study was conducted to examine the perceptions of accounting professionals regarding the role of blockchain technology in enhancing the reliability of accounting records and improving the quality of accounting information.

The chapter begins by describing the research methodology, the research instrument, and the characteristics of the research sample. It then presents the procedures used for data collection and statistical analysis, including descriptive and inferential statistical methods. Finally, the results are analyzed and interpreted to evaluate the proposed research hypotheses and determine the extent to which blockchain technology contributes to improving the reliability, transparency, and integrity of accounting records.

First: Study Instrument: The questionnaire was used as the primary tool for collecting the data required for this study. It was developed based on the theoretical framework and relevant previous studies to ensure that its elements adequately reflect the research objectives and hypotheses. The questionnaire consists of two main sections.

The first section: The demographic and professional characteristics of the respondents were collected, including job title, educational qualification and years of professional experience.

The second section: The study included 13 questionnaire items designed to measure study variables related to the role of blockchain technology in enhancing the reliability of accounting records.

Responses were measured using a five-point Likert scale, with the following response categories: strongly agree, agree, neutral, disagree, strongly disagree.

Second: Research Sample

Responses were measured using a five-point Likert scale, with the following response categories: strongly agree, agree, neutral, disagree, strongly disagree.

Table 1: Demographic Characteristics of the Study Sample

Variable	Category	Frequency	Percentage
Job Title	Finance Officer	21	42%
	Information Technology Officer	17	34%
	Internal Auditor	12	24%
Educational Qualification	Diploma	16	32%
	Bachelor's Degree	22	44%
	Master's Degree	8	16%
	PhD	4	8%
Years of Experience	Less than 5 years	19	38%
	5–10 years	13	26%
	More than 10 years	18	36%

The demographic distribution indicates that the respondents represent diverse professional backgrounds and educational levels, providing a suitable basis for assessing the role of blockchain technology in enhancing the reliability of accounting records.

Third: Data Analysis and Results

The data collected were analyzed using appropriate descriptive and inferential statistical techniques. Descriptive statistics, including arithmetic mean, standard deviation and relative weight, were used to summarize and describe respondents' perceptions regarding the study variables. Inferential statistics were then applied using a t-test to evaluate the proposed research hypotheses and determine the statistical significance of the observed relationships.

The statistical analysis was performed using an appropriate statistical software package to ensure the accuracy and reliability of the results. The following section provides a comprehensive descriptive analysis of all questionnaire items, followed by the results of the hypothesis testing and their interpretation.

Item No.	Questionnaire Item	Mean	Standard Deviation	Relative Weight (%)	Rank
12	Blockchain technology contributes to standardizing accounting practices when dealing with international companies.	4.76	0.54	95.2	1
4	Blockchain technology helps in detecting financial fraud in its early stages.	4.64	0.52	92.8	2
6	Smart contracts ensure automatic transaction recording without human intervention.	4.62	0.64	92.4	3
8	Blockchain technology prevents manipulation because accounting records cannot be altered or deleted.	4.62	0.69	92.4	4
11	Blockchain technology contributes to increasing the speed of financial settlement between parties.	4.58	0.67	91.6	5
3	The high cost of implementation limits the adoption of blockchain technology in small and medium-sized enterprises.	4.52	0.64	90.4	6
5	Blockchain technology makes the work of external auditors easier by enabling them to trace the origin of every financial transaction.	4.46	0.78	89.2	7
2	The accounting profession requires new legal regulations to recognize accounting records based on blockchain technology.	4.38	0.66	87.6	8
1	A lack of technical expertise reduces the ability of accountants to benefit from blockchain technology.	4.30	0.54	86.0	9
10	Blockchain technology contributes to standardizing accounting across the organization's branches.	4.26	0.80	85.2	10
13	Implementing blockchain technology requires updating international accounting standards to accommodate digital record keeping.	4.18	0.85	83.6	11
7	Blockchain technology eliminates the need to wait for bank account matching processes because transactions are processed in real time.	4.12	0.75	82.4	12
9	Distributing identical copies of accounting records among multiple authorized parties contributes to enhancing data security.	3.82	0.98	76.4	13

Detailed Analysis of the Results

1. Detection and Control Efficiency

The results show a high level of agreement among respondents regarding the contribution of blockchain technology to enhancing accounting control and improving the reliability of accounting records. Item (4), "Blockchain technology helps detect financial fraud in its early stages," ranked second with an average score of 4.64, indicating that respondents see blockchain as an effective mechanism to enhance fraud detection and reduce opportunities for financial manipulation. Similarly, clause (8), which states that blockchain records cannot be altered or deleted, achieved a relative weight of 92.4%, reflecting strong confidence in the immutability of blockchain records as a key factor in maintaining data integrity and supporting reliable auditing procedures.

2. Automation and Reduction of Human Error

The results also indicate strong support for the automation capabilities provided by blockchain technology. Item (6), which relates to the role of smart contracts in automatically recording transactions, received an average score of 4.62, indicating that respondents believe that automation can reduce human intervention and improve the accuracy of accounting processes. Similarly, item (11), relating to the speed of financial settlement, achieved a relative weight of 91.6%, while item (7), relating to reducing delays associated with traditional bank settlements, recorded an average score of 4.12. These results indicate that blockchain technology has the potential to improve operational efficiency, speed up transaction processing, and reduce human errors in accounting activities.

3. Challenges to Blockchain Adoption

Despite the positive perceptions of blockchain technology, participants also identified several challenges that could hinder its implementation. The high cost of adopting blockchain technology ranked among the most significant obstacles, with an average score of 4.52. In addition, participants emphasized the need to update the legal and regulatory frameworks for the recognition of blockchain-based accounting records, as evidenced by item (2), which achieved an average score of 4.38. Furthermore, the lack of technical expertise among accounting professionals, with an average score of 4.30, highlights the importance of professional training and capacity building. These results indicate that the successful implementation of blockchain technology depends not only on technological progress, but also on supportive legislation, appropriate regulatory policies, and qualified human

resources.

4. International Standardization and Transparency

The highest-rated statement was item (12), "Blockchain technology contributes to harmonizing accounting standards when dealing with international companies," with an average score of 4.76. This result reflects respondents' strong belief that blockchain technology can facilitate the harmonization of accounting practices in international business environments by providing transparent, consistent, and verifiable financial records. Item (13), which relates to the need to update international accounting standards to accommodate digital record keeping, also received a high level of approval, with an average score of 4.18. Taken together, these results suggest that the increasing use of blockchain technology may require the continued development of accounting standards and regulatory frameworks to support digital financial reporting and improve the comparability and reliability of accounting information.

Conclusions

The results indicate that blockchain technology has great potential to enhance the reliability, integrity, and transparency of accounting records by providing a secure and immutable environment for recording financial transactions.

The experimental results show a high level of agreement among participants regarding the role of blockchain technology and smart contracts in reducing human error, improving transaction accuracy, and increasing the efficiency of accounting and auditing processes.

The study confirms that the successful adoption of blockchain technology requires the development of appropriate legal and regulatory frameworks capable of recognizing blockchain-based digital records and supporting their integration into accounting and financial reporting systems.

The results also reveal that insufficient technical knowledge and professional experience among accounting practitioners constitute major obstacles to the effective implementation of blockchain technology. Therefore, ongoing professional training and educational programs are essential to maximizing the benefits of blockchain-based accounting systems.

The participants agreed that blockchain technology

contributes to improving transparency, facilitating the standardization of accounting practices, and enhancing stakeholder confidence in financial information, thus supporting the development of modern accounting information systems.

Overall, the study concluded that blockchain technology represents a promising technological innovation capable of improving the quality, reliability, and credibility of accounting information, while supporting more efficient accounting and auditing practices.

Recommendations

Based on the results of this study, the following recommendations are proposed:

Legislative and regulatory framework: Regulatory authorities should develop and update accounting, financial and commercial legislation to recognize digital records based on blockchain technology, and provide an appropriate legal framework for their use in accounting, auditing and financial reporting.

Institutional adoption: Public and private institutions should gradually adopt accounting information systems based on blockchain and distributed ledger technology (DLT) to improve the reliability, transparency, and security of accounting records while reducing reliance on manual procedures.

Professional training and capacity building: Professional accounting bodies, universities, and training institutions should provide specialized educational programs and continuing professional development programs on blockchain technology, smart contracts, and their applications in accounting and auditing to enhance the technical competencies of professional accountants.

Technological development and pilot projects: Organizations are encouraged to implement blockchain technology pilot projects within their accounting information systems to assess its effectiveness, identify implementation challenges, and develop best practices before widespread deployment.

Accounting standards and academic research: Accounting standard-setting bodies should assess the impact of blockchain technology on financial reporting and auditing standards, while universities and research institutions should encourage more empirical studies on the impact of blockchain technology on the quality of accounting information, audit efficiency, and the reliability of financial reporting.

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Work-Life Balance and Job Satisfaction among Academic Staff of the University of Benin

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Abstract. This study examined work-life balance and job satisfaction among academic staff of the University of Benin. The study specifically determined the perceived level of work-life balance, assessed the level of job satisfaction, and examined the relationship between work-life balance and job satisfaction among academic staff. A descriptive correlational survey design was adopted for the study. The population comprised 1,790 academic staff, from which a sample size of 327 respondents was determined using Yamane's formula at a 5% level of precision. Data were collected using a structured questionnaire and analysed using descriptive statistics and Pearson Product-Moment Correlation. The findings revealed that academic staff reported a high level of work-life balance, with a grand mean of 2.64. The findings also revealed a high level of job satisfaction, with a grand mean of 2.75. Furthermore, the findings showed a positive and statistically significant relationship between work-life balance and job satisfaction among academic staff ($r = 0.422$, $p < 0.05$, $N = 327$). The findings indicate that higher levels of work-life balance were associated with higher levels of job satisfaction among academic staff of the University of Benin. The study concludes that academic staff experienced high levels of work-life balance and job satisfaction and that work-life balance was significantly related to job satisfaction. It recommends the sustenance of institutional practices that support academic staff in effectively managing their professional and personal responsibilities to promote job satisfaction and staff wellbeing.

Keywords: Work-Life Balance, Job Satisfaction, Academic Staff, University of Benin, Higher Education.

1. Introduction

Academic work today involves a wide range of responsibilities, including teaching, research, student supervision, publishing, administrative duties and community service. For many academic staff, these responsibilities often extend beyond regular working hours, making it difficult to give adequate attention to both work and personal life. As a result, achieving a satisfactory balance between professional responsibilities and personal commitments has become an important concern in higher education, particularly because of the demanding workload and competing roles associated with academic work. (Don-Solomon & Amakiri, 2023; Enya et al., 2025; Ashiru & Lawal, 2025). In Nigerian public universities, these challenges may be further complicated by staffing constraints, resource limitations and growing expectations of academic productivity. Consequently, attention to the balance between work and non-work responsibilities has become relevant to the wellbeing and effectiveness of academic staff (Ojo-Ebenezer & Olofin, 2023; Kuforiji et al., 2024; Loba et al., 2026).

Work-life balance refers broadly to the extent to which individuals are able to manage and fulfil their work and personal-life responsibilities without excessive conflict between the two domains (Antoniuk-Gula et al., 2024). For academic staff, achieving such balance can be particularly challenging because academic work often involves responsibilities that are not restricted to formal working hours. Teaching preparation, marking, research activities, publication, supervision, meetings and administrative duties may compete with family and other personal obligations (Enya et al., 2025). When work demands interfere substantially with personal life, or personal responsibilities interfere with work, academics may experience difficulties maintaining a satisfactory

balance. Recent evidence from Nigerian higher education institutions similarly suggests that workload, institutional support and the conditions under which academic work is performed are important considerations in understanding staff wellbeing and work experiences (Ashiru & Lawal, 2025; Kuforiji et al., 2024; Loba et al., 2026).

Job satisfaction is another important aspect of the academic work experience. It represents an individual's positive or negative evaluation of the job and the extent to which the job meets important expectations and needs (Kuforiji et al., 2024). Among academic staff, job satisfaction may derive from both intrinsic and extrinsic aspects of employment. Intrinsic aspects may include the nature of academic work, opportunities for intellectual development, autonomy, achievement and recognition, whereas extrinsic aspects may include remuneration, promotion, working conditions, institutional support and job security. Recent Nigerian studies have identified working conditions, management support, resources and other organisational factors as relevant to the job satisfaction and wellbeing of academic staff (Kuforiji et al., 2024; Mohammed & Bature, 2024; Melekeowei & Popoola, 2025). Thus, job satisfaction can appropriately be considered as an overall construct incorporating both intrinsic and extrinsic dimensions of the academic work experience.

The relationship between work-life balance and job satisfaction is particularly important because the extent to which academic staff are able to manage their professional and personal responsibilities may shape how they perceive their jobs. When academic staff perceive that their work provides adequate opportunity to attend to family and personal responsibilities, they may develop more favourable attitudes towards their employment. Conversely, persistent conflict between professional and personal responsibilities may negatively affect their perceptions of their jobs. Recent studies involving academic staff in Nigerian universities have examined work-life balance in relation to career success, job-related outcomes and employee experiences (Ashiru & Lawal, 2025; Kuforiji et al., 2024; Loba et al., 2026). Other studies have examined job satisfaction in relation to motivation, workplace conditions and emotional exhaustion (Abiodun-Oyebanji & Iyiola, 2023; Eimuen, 2023; Ijaro, 2024). However, limited attention has been given to the specific relationship between work-life balance and overall job satisfaction among academic staff within individual Nigerian universities.

This gap is important because findings from other universities may not be directly applicable to the

University of Benin. Differences in workload, administrative practices, working conditions, organisational policies and staff experiences may influence how academic staff perceive their work-life balance and job satisfaction (Ashiru & Lawal, 2025; Kuforiji et al., 2024; Mahohoma & Harpal, 2025). Consequently, there is a need for empirical evidence that specifically examines work-life balance and job satisfaction among academic staff within the University of Benin. Such evidence may provide a clearer understanding of the work experiences of academic staff and the extent to which their ability to balance professional and personal responsibilities is associated with their overall job satisfaction. Against this background, this study seeks to examine work-life balance and job satisfaction among academic staff at the University of Benin. Specifically, the study aims to determine the perceived level of work-life balance among academic staff, determine their level of job satisfaction, and determine the relationship between work-life balance and job satisfaction. The findings may provide useful evidence for university management and other stakeholders in understanding the work experiences of academic staff and considering appropriate policies and practices relating to staff welfare and the university work environment.

2. Literature Review

2.1 Job Satisfaction

Job satisfaction refers to the extent to which individuals evaluate their jobs positively based on their experiences, expectations and the extent to which their work meets important personal and professional needs (Williams et al., 2024). It reflects an individual's overall affective and cognitive assessment of the job and may arise from satisfaction with different aspects of employment, including the work itself, supervision, remuneration, promotion opportunities and working conditions. Martela et al. (2025) viewed job satisfaction as an overall evaluative judgment of one's job, while Ehigbochie et al. (2024) described it in terms of employees' assessment of their job-related experiences and the positive or negative feelings arising from such experiences. Similarly, Stephen (2024) conceptualised job satisfaction among academic staff as the positive emotional wellbeing and contentment experienced in relation to their academic roles and responsibilities. These perspectives indicate that job satisfaction is not limited to employees' feelings about a single aspect of their jobs, but represents an overall evaluation of their employment, incorporating both intrinsic and extrinsic aspects of the work experience. Among academic staff, intrinsic satisfaction may arise from the nature of academic

work, intellectual achievement, autonomy, recognition and opportunities for professional development, while extrinsic satisfaction may be associated with remuneration, promotion, working conditions, institutional support and job security. Consequently, job satisfaction constitutes an important aspect of the academic work experience and may influence staff wellbeing, commitment, motivation and willingness to remain within the university environment (Kuforiji et al., 2024; Abiodun-Oyebanji & Iyiola, 2023).

2.3 Work-life balance

Work-life balance refers to the extent to which individuals are able to effectively manage their work responsibilities and personal commitments while maintaining a satisfactory level of harmony between the two domains (Sirgy & Lee, 2023). It involves the ability to allocate adequate time, energy and attention to professional responsibilities, family obligations, leisure and other personal activities without experiencing excessive conflict between work and personal life (Antoniuk-Gula et al., 2024). Similarly, Alameddine et al. (2023) viewed work-life balance as the ability to manage multiple work and non-work roles while minimising conflict or interference between the two domains. Bakracheva et al. (2024) also conceptualised work-life balance in terms of reducing conflict and interference between work and personal-life responsibilities. These perspectives suggest that work-life balance is not simply about dividing time equally between work and personal life, but rather about achieving a satisfactory level of harmony that enables individuals to manage competing roles effectively. Among academic staff, this involves balancing teaching, research, student supervision, publication, administrative responsibilities and other institutional duties with family and personal commitments (Enya et al., 2025; Ashiru & Lawal, 2025). Consequently, work-life balance represents an important aspect of the work experience and wellbeing of academic staff, particularly in an environment where professional responsibilities may extend beyond conventional working hours.

The common dimensions of work-life balance include work-to-life conflict, life-to-work conflict, work-to-life enhancement, and life-to-work enhancement (Tennakoon, 2021; Alshibani et al., 2024). Work-to-life conflict occurs when work responsibilities interfere with family and personal activities, while life-to-work conflict arises when personal or family responsibilities interfere with work. Work-to-life enhancement refers to the extent to which experiences

and resources gained from work positively influence personal life, whereas life-to-work enhancement describes how experiences and resources from personal life contribute positively to work. Together, these dimensions provide a comprehensive view of how work and personal life may either conflict with or complement each other.

3. Theoretical Framework

3.1 Work-Family Border Theory

This study is anchored on the Work-Family Border Theory, developed by Sue Campbell Clark in 2000. Clark (2000) developed the theory to explain how individuals manage the boundaries between their work and family domains. The theory is based on the premise that work and family constitute distinct but interconnected spheres in which individuals perform important roles. According to Clark (2000), individuals are border-crossers who regularly move between these domains, and their ability to establish, maintain and manage the boundaries between them influences their experience of work-family balance. The theory emphasises the concepts of boundary flexibility, permeability, integration and segmentation, suggesting that individuals are more likely to achieve balance when they are able to effectively manage the boundaries between work and family (Clark, 2000; Kossek & Lautsch, 2012; Karassvidou & Glaveli, 2015).

Subsequent scholars have supported and extended Clark's propositions. Kossek and Lautsch (2012) explained that individuals adopt different boundary management styles, including integration and segmentation, depending on their preferences and organisational conditions. Similarly, Karassvidou and Glaveli (2015) found that organisational culture, leadership and work attitudes influence the management of work-family boundaries. In the context of higher education, Sallee and Lewis (2020) showed that faculty members may use boundary separation as a strategy for managing work and personal life. These studies support the view that effective boundary management can reduce work-family conflict and promote greater balance (Kossek & Lautsch, 2012; Karassvidou & Glaveli, 2015; Sallee & Lewis, 2020).

The theory is relevant to the present study because academic staff regularly move between professional and personal domains. Teaching, research, supervision, publication and administrative responsibilities may extend beyond normal working hours and affect personal life. Work-Family Border

Theory therefore provides a basis for assessing the perceived level of work-life balance and understanding how the management of work and personal boundaries may relate to job satisfaction among academic staff. It consequently supports the three objectives of the study, which are to determine the levels of work-life balance and job satisfaction and examine the relationship between both variables among academic staff of the University of Benin (Clark, 2000; Sallee & Lewis, 2020).

3.2 Empirical Review

Enya et al. (2025) explored work-life balance among academic staff in three universities in South-Western Nigeria, namely the University of Ibadan, University of Lagos and Lead City University. The researchers focused on identifying the major difficulties academics encounter when attempting to combine their professional duties with personal and family responsibilities. A cross-sectional design was employed, with information obtained through questionnaires and interviews administered to academic staff. The findings indicated that excessive workload, unpaid additional working hours and inadequate support from institutions constituted major sources of work-life imbalance. The researchers noted that the demanding conditions associated with academic work can make it difficult for university staff to adequately attend to both work and personal obligations. They therefore recommended increased institutional assistance and greater flexibility in work arrangements.

Shange and Nyide (2025) examined work-life balance in relation to the wellbeing of academics in South African higher education institutions. Their study was concerned with how academics manage the competing demands of their professional duties and responsibilities outside the workplace, particularly within the context of the COVID-19 pandemic and its aftermath. An empirical approach was used to investigate academics' experiences. The findings indicated that balancing work and personal responsibilities remained problematic as academic workloads increased and working arrangements changed. The researchers consequently emphasised the need for supportive institutional policies and favourable working conditions to enhance academic wellbeing and promote a sustainable balance between work and personal life.

Maduwansa (2024) examined the factors associated with work-life balance among academics working in public universities in Sri Lanka. Particular attention was given to the contribution of family and workplace

conditions to academics' ability to maintain balance. The study involved 400 academic staff who were selected through a two-stage stratified proportional random sampling procedure. Data were obtained using a structured questionnaire and analysed through Partial Least Squares Structural Equation Modelling. The results showed that family responsibilities and the availability of family support were significant determinants of work-life balance. In addition, workplace relationships, perceptions of workload and working conditions, and support from supervisors significantly contributed to work-life balance. The study therefore demonstrated that maintaining work-life balance among academics depends on both supportive family circumstances and favourable organisational conditions.

Aguwa et al. (2024) studied burnout and job satisfaction among lecturers in two public universities in Enugu State, Nigeria, namely the University of Nigeria, Nsukka and Enugu State University of Technology. The researchers sought to determine the extent of burnout and job satisfaction and identify factors associated with these conditions. A cross-sectional analytical design was used, with 392 lecturers selected through multistage sampling. The Oldenburg Burnout Inventory and Job Descriptive Index served as the major instruments for data collection. The findings showed that only 38.3% of the lecturers indicated a high level of job satisfaction, while satisfaction with several specific aspects of their jobs was also relatively low. Furthermore, burnout was significantly related to job satisfaction, as lecturers experiencing burnout were more likely to report lower satisfaction with their jobs. The study highlighted working conditions, remuneration, career opportunities and supervision as important factors associated with lecturers' job satisfaction.

Mohamud et al. (2024) investigated job satisfaction among academic and non-academic employees of SIMAD University in Mogadishu, Somalia. The researchers sought to assess employees' overall satisfaction with their jobs and determine the workplace factors associated with such satisfaction. A quantitative research approach was adopted, and 208 university employees were selected through purposive sampling. Data were gathered with a structured questionnaire and analysed using descriptive and correlation statistics, while Cronbach's alpha was employed to assess the reliability of the research instrument. The results indicated that the employees generally demonstrated a high level of job satisfaction. However, comparatively lower satisfaction was observed in relation to appointment and promotion procedures and the physical work environment. The

findings also established positive associations between the examined workplace factors and job satisfaction. The researchers suggested that improvements in promotion practices and the physical work environment could further strengthen employees' satisfaction.

Abiodun-Oyebanji and Iyiola (2023) examined the relationships among motivation, job satisfaction and turnover intention among academic staff in private universities in South-Western Nigeria. The study assessed the levels of these variables and investigated whether motivation and job satisfaction significantly influenced academics' intention to leave their institutions. A descriptive research design was employed, while multistage sampling was used to obtain 1,473 academic staff from eight private universities located across four states. The researchers analysed the data using frequency counts, percentages, mean, standard deviation and multiple regression. The results revealed that academic staff reported relatively low levels of motivation and job satisfaction alongside a high level of turnover intention. The analysis further showed that both motivation and job satisfaction significantly influenced turnover intention. The study consequently identified improvements in staff motivation and job satisfaction as important considerations in addressing turnover intention among academic staff.

Omolaiye et al. (2020) assessed job satisfaction among academic staff employed on full-time appointments in tertiary institutions in South-Western Nigeria. The study sought to establish the level of job satisfaction and determine the conditions that contribute to academics' satisfaction with their employment. Using a quantitative research approach, the researchers collected questionnaire data from 880 academic staff drawn from 18 tertiary institutions. Descriptive statistics, correlation and regression analyses were employed to analyse the data. The findings indicated dissatisfaction with opportunities for professional and personal development, particularly in relation to inadequate research environments, although a moderate level of overall job satisfaction was reported by the respondents. Factors such as remuneration, welfare provisions, recognition, availability of facilities and teamwork were also identified as relevant to job satisfaction. The study suggested that improving these aspects of the academic work environment could contribute to higher levels of job satisfaction.

Dube and Ndofirepi (2024) investigated the relationships among work-life balance, job satisfaction and organisational commitment among

academic staff in higher education institutions in western Zimbabwe. The study specifically examined whether work-life balance was associated with job satisfaction and whether job satisfaction mediated the relationship between work-life balance and organisational commitment. A cross-sectional survey design was employed, involving 224 teaching staff from two universities who were selected through convenience sampling. Partial Least Squares Structural Equation Modelling was used to analyse the data. The findings established that work-life balance significantly predicted job satisfaction. The analysis further indicated that the association between work-life balance and both affective and normative organisational commitment operated indirectly through job satisfaction. The study consequently highlighted the importance of promoting favourable work-life conditions as a means of supporting both job satisfaction and organisational commitment among academic staff.

Demir and Budur (2023) examined how different dimensions of work-life balance relate to motivation, job satisfaction and performance among university academics in the Kurdistan Region of Iraq during the COVID-19 period. The study considered three dimensions of work-life balance: work interference with personal life, personal life interference with work, and the extent to which work and personal life enhance one another. A quantitative survey design was adopted, and 490 valid responses were obtained from academic staff working in public and private universities in the region. Statistical analyses were conducted to determine the relationships between the dimensions of work-life balance and the selected work outcomes. The results showed that neither work interference with personal life nor personal life interference with work had a significant relationship with job satisfaction. In contrast, work-personal-life enhancement was positively and significantly associated with job satisfaction. The findings therefore suggested that positive interactions between professional and personal life may be particularly relevant to academics' job satisfaction.

Žnidaršič and Marič (2021) investigated work-family balance, job satisfaction, life satisfaction and work engagement among higher education lecturers in Austria, Croatia, the Czech Republic, Germany, Serbia and Slovenia. The researchers sought to establish how work-life balance was related to job and life satisfaction and whether these factors were associated with work engagement. Data were obtained from 164 lecturers through online questionnaires containing validated measures of the study variables. Structural equation modelling was subsequently used

to examine the proposed relationships. The findings showed that lecturers with higher levels of work-life balance also reported higher job satisfaction and life satisfaction. Life satisfaction was additionally found to have a positive relationship with work engagement. The study thus highlighted the relevance of helping academics manage their professional and family responsibilities as part of efforts to support job satisfaction, life satisfaction and engagement.

Rahman et al. (2020) examined the influence of work-to-family conflict, family-to-work conflict and work-family balance on job satisfaction among academics in Malaysian private universities. The researchers sought to determine whether conflicts arising between work and family roles could predict job satisfaction and whether work-family balance played a mediating role in these relationships. A quantitative survey design was adopted, and questionnaire data were obtained from 280 academic staff selected through convenience sampling. Structural equation modelling was used to test the relationships among the study variables. The results showed that both work-to-family conflict and family-to-work conflict were significantly and negatively associated with job satisfaction. Work-family balance was also found to partially mediate the relationship between work-to-family conflict and job satisfaction, whereas it did not significantly mediate the relationship between family-to-work conflict and job satisfaction. The study therefore emphasised the importance of minimising conflicts between work and family responsibilities and creating conditions that enable academics to achieve greater work-family balance.

Based on the identified gap in the literature, the study was guided by the following research questions and hypothesis

Research Questions

- What is the perceived level of work-life balance among academic staff at the University of Benin?
- What is the level of job satisfaction among academic staff at the University of Benin?

Hypothesis

H₀₁: There is no significant relationship between work-life balance and job satisfaction among academic staff at the University of Benin.

4. Research Methodology

The study adopted a descriptive correlational survey design. The design is considered appropriate because

the study seeks to determine the perceived level of work-life balance and the level of job satisfaction among academic staff at the University of Benin and to examine the relationship between the two variables. The descriptive component will enable the researcher to determine the levels of work-life balance and job satisfaction, while the correlational component will enable the researcher to establish whether a significant relationship exists between work-life balance and job satisfaction without manipulating the variables. Data will be collected from academic staff through a structured questionnaire.

4.1 Population of the Study

The population of the study comprised all academic staff of the University of Benin. According to the Academic Planning Division, University of Benin (2026), the total population of academic staff was 1,790. This figure constituted the population from which the sample for the study was drawn.

4.2 Sample Size

The sample size for the study was determined using Yamane's (1967) simplified formula:

$$n = N / [1 + N(e)^2]$$

Where:

n = required sample size

N = population size

e = level of precision (0.05)

Given:

N = 1,790

e = 0.05

Therefore:

$$n = 1,790 / [1 + 1,790 (0.05)^2]$$

$$n = 1,790 / [1 + 1,790(0.0025)]$$

$$n = 1,790 / [1 + 4.475]$$

$$n = 1,790 / 5.475$$

$$n = 326.94$$

Thus, the sample size for the study was 327 academic staff.

4.3 Sampling Technique

The study adopted the simple random sampling technique for the selection of respondents. The technique gave every academic staff member in the population an equal and independent chance of being selected for the study.

4.4 Instrument for Data Collection

The instrument used for data collection was a structured questionnaire developed by the researcher based on the objectives of the study and the

dimensions of the variables under investigation. The questionnaire was used to obtain information on work-life balance and job satisfaction among academic staff of the University of Benin.

4.5 Validity of the Instrument

The validity of the instrument was established through expert judgment. The structured questionnaire was submitted to three experts in the University of Benin for assessment of the adequacy, clarity, relevance and appropriateness of the items in relation to the objectives of the study. Their observations and suggestions were used to revise the instrument before its administration.

4.6 Reliability of the Instrument

The reliability of the instrument was determined using an appropriate reliability procedure. The reliability

coefficients obtained for the two major sections of the instrument were 0.86 for work-life balance and 0.89 for job satisfaction, respectively. These coefficients indicated that the instrument had satisfactory internal consistency and was suitable for data collection.

4.7 Method of Data Analysis

The data collected for the study were analysed using both descriptive and inferential statistics. Descriptive statistics included frequency counts, means and standard deviations, which were used to summarise to determine the levels of work-life balance and job satisfaction. Correlation analysis constituted the inferential statistic and was used to determine the relationship between work-life balance and job satisfaction among academic staff of the University of Benin. All data analyses were performed using the Statistical Package for the Social Sciences (SPSS), Version 29.0.

5. Results and Discussion

Research Question 1: What is the perceived level of work-life balance among academic staff at the University of Benin?

Table 1: Mean and standard deviation scores for the perceived level of work-life balance among academic staff at the University of Benin

S/N	ITEMS	N	Mean	SD	Remark
1	I am able to adequately balance my academic responsibilities with my family and personal responsibilities.	327	2.81	0.72	High
2	My academic workload allows me sufficient time for my family and personal activities	327	2.52	0.65	High
3	I am able to manage my family and personal responsibilities without negatively affecting my academic duties.	327	2.50	0.72	High
4	My academic work provides experiences and opportunities that contribute positively to my personal and family life	327	2.52	0.69	High
5	My family and personal life contribute positively to my effectiveness in carrying out my academic responsibilities	327	2.84	0.72	High
6	I am able to complete my academic responsibilities without regularly sacrificing important personal or family activities.	327	2.51	0.72	High
7	The support I receive from my family enables me to perform my academic responsibilities effectively.	327	2.77	0.65	High
8	I have sufficient flexibility to attend to important personal or family needs when necessary.	327	2.66	0.72	High
	Average		2.64		High

N = 327, 1.00–1.74 = Very Low, 1.75–2.49 = Low, 2.50–3.24 = High, and 3.25–4.00 = Very High.

Data in Table 1 show the mean and standard deviation of the questionnaire items measuring work-life balance among academic staff at the University of Benin. The grand mean of 2.64 indicates that the respondents reported a high level of perceived work-life balance, based on the adopted decision rule. Among the items, the highest mean score was recorded for the statement, “My family and personal life contribute positively to my effectiveness in carrying out my academic responsibilities” ($M = 2.84$, $SD = 0.72$), while the lowest mean score was recorded for the statement, “I am able to manage my family and personal responsibilities without negatively affecting my academic duties” ($M = 2.50$, $SD = 0.72$). Overall, the findings indicate that the academic staff generally perceived themselves as being able to balance their academic responsibilities with their family and personal responsibilities.

Research Question 2: What is the level of job satisfaction among academic staff at the University of Benin?

Table 2: Mean and standard deviation scores for the level of job satisfaction among academic staff at the University of Benin

S/N	ITEMS	N	Mean	SD	Remark
1	I am satisfied with the nature of the academic work I perform at the University of Benin.	327	2.74	0.72	High
2	I am satisfied with the opportunities available for professional growth and development in my job.	327	2.88	0.65	High
3	I am satisfied with the recognition and appreciation I receive for my academic contributions.	327	2.78	0.72	High
4	I am satisfied with the salary and other benefits associated with my academic job.	327	2.45	0.69	High
5	Overall, I am satisfied with my job as an academic staff member of the University of Benin	327	2.86	0.72	High
6	I am satisfied with the working conditions provided by the University	327	2.63	0.72	High
7	I am satisfied with the level of support I receive from my colleagues and university management.	327	2.77	0.72	High
8	I am satisfied with the opportunities available to me to use my skills and abilities in my academic work	327	2.89	0.65	High
	Average		2.75		High

N= 327, 1.00–1.74 = Very Low, 1.75–2.49 = Low, 2.50–3.24 = High, and 3.25–4.00 = Very High.

Data in Table 2 show the mean and standard deviation of the questionnaire items measuring job satisfaction among academic staff at the University of Benin. The grand mean of 2.75 indicates that the respondents reported a high level of perceived job satisfaction, based on the adopted decision rule. Among the items, the highest mean score was recorded for satisfaction with the opportunities to use skills and abilities in academic work ($M = 2.89$, $SD = 0.65$), while the lowest mean score was recorded for satisfaction with salary and other benefits ($M = 2.45$, $SD = 0.69$), which indicates a low level of satisfaction with this aspect of the job. Overall, the findings indicate that the academic staff generally reported high levels of satisfaction with various aspects of their academic work, including opportunities to utilise their skills and abilities, professional development, recognition, working conditions, and workplace support.

Hypothesis one: There is no significant relationship between work-life balance and job satisfaction among academic staff at the University of Benin

Table 3: Pearson's Correlation of Work-Life Balance and Job Satisfaction among Academic Staff of the University of Benin

Variables	N	Pearson's	Sig/2-Tailed
Work-life balance			
Job satisfaction	327	0.422	0.000

P-value significant at 0.05 level (2-tailed), (Reject Hypothesis)

The result presented in Table 3 indicates a positive and statistically significant relationship between work-life balance and job satisfaction among academic staff of the University of Benin ($r = 0.422$, $p < 0.05$, $N = 327$). The correlation coefficient of 0.422 indicates a moderate positive relationship, suggesting that higher levels of work-life balance are associated with higher levels of job satisfaction among the academic staff. Since the obtained p-value of 0.000 is less than the 0.05 level of significance, the null hypothesis is rejected. Thus, there is a significant relationship between work-life balance and job satisfaction among academic staff of the University of Benin.

6. Discussion of findings

The finding of research question one revealed that academic staff at the University of Benin reported a

high level of perceived work-life balance, with a grand mean of 2.64. This finding indicates that the respondents generally perceived themselves as being able to manage their academic responsibilities alongside their family and personal responsibilities. The finding is consistent with Maduwansha (2024), who found that family support, interpersonal relationships, workload satisfaction, working conditions and supervisor support were important factors influencing work-life balance among academic staff. However, the finding disagrees with Enya et al. (2025), who reported considerable work-life balance challenges among academic staff due to heavy workloads, unpaid overtime and inadequate institutional support, and with Shange and Nyide (2025), who found that increasing academic demands and changing work conditions made it difficult for academics to balance their professional and personal

responsibilities. The differences may be attributed to variations in institutional contexts, workload experiences, working conditions and the availability of personal and organisational support. Overall, the finding suggests that academic staff at the University of Benin generally perceived themselves as capable of managing their professional responsibilities alongside their family and personal lives.

The finding from research question two revealed that academic staff at the University of Benin reported a high level of perceived job satisfaction, with a grand mean of 2.75. This finding indicates that the respondents were generally satisfied with various aspects of their academic work. The finding is consistent with Mohamud et al. (2024), who reported a high level of job satisfaction among university staff at SIMAD University, although lower satisfaction was observed in areas such as promotion processes and the physical work environment. However, the present finding disagrees with Aguwa et al. (2024), who found that only 38.3% of lecturers in selected public universities in Enugu State reported high job satisfaction and that many experienced low to moderate satisfaction. The finding also differs from Abiodun-Oyebanji and Iyiola (2023), who reported low levels of job satisfaction among academic staff in private universities in South-Western Nigeria, and from Omolaiye et al. (2020), who found dissatisfaction with opportunities for self-development and only moderate job satisfaction among academic staff in tertiary institutions in South-Western Nigeria. The differences may be attributed to variations in institutional context, working conditions, remuneration, promotion opportunities, welfare provisions, recognition, supervision and opportunities for professional development. Overall, the finding suggests that academic staff at the University of Benin generally perceived themselves as satisfied with their jobs, although specific aspects of employment may still require attention to sustain and further improve their level of job satisfaction.

The finding of the study revealed a positive and statistically significant relationship between work-life balance and job satisfaction among academic staff at the University of Benin ($r = 0.422$, $p < 0.05$, $N = 327$). The correlation coefficient indicates a moderate positive relationship, suggesting that higher levels of work-life balance are associated with higher levels of job satisfaction among academic staff. This finding is consistent with Dube and Ndofirepi (2024), who found that work-life balance significantly predicted job satisfaction among academic staff in higher education institutions in western Zimbabwe. The finding also agrees with Žnidaršič and Marič (2021), who reported

a positive relationship between work-life balance and job satisfaction among higher education lecturers across selected European countries. Similarly, Rahman et al. (2020) found that promoting work-family balance was important for enhancing job satisfaction among academic staff in Malaysian private universities. However, the present finding differs partly from Demir and Budur (2023), who found that work interference with personal life and personal life interference with work did not have significant effects on job satisfaction, although work-personal-life enhancement had a significant positive effect on job satisfaction. The differences may be attributed to variations in the dimensions of work-life balance examined, institutional contexts and the working conditions of academic staff across the different settings. Overall, the finding indicates that maintaining a satisfactory balance between professional and personal responsibilities is significantly associated with greater job satisfaction among academic staff at the University of Benin.

7. Conclusion

The study investigated Work-Life Balance and Job Satisfaction among Academic Staff of the University of Benin. Specifically, the study aims to determine the perceived level of work-life balance among academic staff at the University of Benin, examine the level of job satisfaction among academic staff at the University of Benin and determine the relationship between work-life balance and job satisfaction. Based on the findings of the study, it was concluded that academic staff at the University of Benin reported a high level of perceived work-life balance and a high level of perceived job satisfaction. The study further established that there was a positive and statistically significant relationship between work-life balance and job satisfaction among academic staff. This implies that academic staff who perceived a higher level of balance between their professional and personal responsibilities also tended to report higher levels of job satisfaction. The findings therefore suggest that work-life balance is an important factor associated with the job satisfaction of academic staff at the University of Benin.

8. Recommendations

The management of the University of Benin should sustain and strengthen the existing practices that support work-life balance among academic staff, since the staff reported a high level of perceived work-life balance. This may be achieved by maintaining policies and administrative practices that enable academic staff

to effectively manage their academic responsibilities alongside their family and personal responsibilities.

The management of the University of Benin should sustain and strengthen the existing conditions that contribute to the high level of job satisfaction among academic staff, particularly by maintaining supportive work environments and practices that enable staff to remain satisfied with various aspects of their academic work.

The management of the University of Benin should pay more attention to helping academic staff achieve a better balance between their work and personal lives. Since the study found a significant positive relationship between work-life balance and job satisfaction, creating conditions that enable staff to manage their academic responsibilities alongside their family and personal commitments may contribute to greater satisfaction with their jobs.

9. Implication and Contribution to Knowledge

The findings of the study have important implications for the management of the University of Benin, particularly in relation to the management and welfare of academic staff. The high level of perceived work-life balance and job satisfaction reported by the respondents suggests that existing organisational arrangements and administrative practices provide a relatively supportive environment for academic staff to manage their professional responsibilities alongside their family and personal commitments. However, the significant positive relationship between work-life balance and job satisfaction indicates that maintaining favourable work-life conditions remains relevant to the overall work experience of academic staff. University management should therefore continue to pay attention to workload distribution, teaching and research responsibilities, committee assignments, administrative duties, leave arrangements and other institutional demands that may affect employees' ability to coordinate work and personal commitments. Academic administrators, including Heads of Department and other relevant managers, should also promote supportive communication, reasonable workload allocation and staff welfare practices while maintaining institutional standards and academic responsibilities. Although work-life balance is not the only factor that influences job satisfaction, the finding suggests that it represents an important aspect of the employment environment that should be considered when developing human resource policies and making decisions concerning staff welfare, workload and administrative responsibilities.

The study contributes to existing knowledge by providing empirical evidence on the relationship between work-life balance and job satisfaction among academic staff of the University of Benin. In particular, the finding of a moderate, positive and statistically significant relationship between the two variables provides empirical support for the view that employees' ability to manage work-related and personal responsibilities is associated with their perceptions of their jobs. The study further extends the literature by providing context-specific evidence from academic staff within a Nigerian university, where employees perform multiple and interconnected responsibilities involving teaching, research, student supervision, academic administration and community service. This context provides a useful basis for understanding work-life balance and job satisfaction within the higher education sector. The findings may serve as a reference for university administrators, human resource practitioners and researchers interested in employee well-being and job satisfaction in higher education. They also provide a foundation for future studies to examine the relationship across different universities, academic ranks, faculties and categories of staff, as well as to investigate specific dimensions of work-life balance that may be associated with different aspects of job satisfaction. The contribution of the study should, however, be interpreted within the population, variables, methodology and institutional context covered by the research.

10. Suggestions for further studies

Future researchers could examine differences in work-life balance and job satisfaction among academic staff based on demographic and occupational characteristics such as gender, age, academic rank, marital status, years of work experience and faculty. This would provide a broader understanding of how these characteristics may relate to work-life balance and job satisfaction among academic staff.

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Strategic Alignment and its Impact on achieving Strategic Readiness: An Analytical Study of the Opinions of a Sample of Employees in the Najaf Al-Ashraf Garment Factory

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Abstract. Through this study, we want to find out what factors affect strategic alignment (which includes communication, partnership, governance, infrastructure, and skills) and how that affects strategic readiness (which includes readiness for change, readiness for management as well as leadership, and human capital readiness). The Najaf Al-Ashraf Garment Factory was picked as the place where this research could be used in real life. The main question that was asked to define the study problem was: How can strategic alignment affect the attainment of strategic readiness? To find the answer, the main research question had a list of sub-questions that helped reach the research goals. In order to reach these goals, the research attempts to define the facets of the research factors and come up with its hypotheses. When the researcher went out into the field, they used the descriptive-analytical method to talk about the research variables and the Statistical Package for the Social Sciences (SPSS) v.27 and the AMOS v.27 software to build the research model. The group was chosen by simple random sampling. The people who worked at the Najaf Garment Factory were the research group, totaling 708 employees. The sample consisted of employees from all departments, production lines and units in the factory. Two hundred and fifty-five questionnaires were sent out and 253 were returned. From these, 250 were valid for statistical analysis, representing the research sample, with a response rate of 98%. The research drew several conclusions but the most important one is that effective strategic alignment is helpful to create a shared organisational climate and corporate culture that reduces employee resistance to change. This climate helps the organisational plan to be ready to receive new production lines or to alter garment designs to suit local tastes and developing trends. Marketability.

Keywords: Strategic Readiness, Strategic Alignment, Employees of the Najaf Al-Ashraf Garment Factory.

1. Introduction

The modern business environment is dynamic and highly competitive, forcing industrial and production organisations to implement flexible management concepts with a focus of all energies and resources on a common goal. The concept of strategic alignment is an important tool for achieving this harmony. It indicates how far the organisational objectives, structures, culture and operational processes are aligned and integrated with the overall strategy of an organization. The lack of such alignment leads inevitably to fragmentation of efforts, waste of resources and failure of organisations to respond to changes in external environment. This makes vertical and horizontal alignment an urgent necessity to ensure that every employee and every department works in a unified strategic direction (Al-Ansar & Mitchell, 2022: 45).

The true benefit of achieving internal alignment within an organization lies in building its proactive capabilities and enhancing what is known as strategic readiness. This readiness is not limited to having alternative plans; This includes developing human capital, upgrading technological and information systems, and ensuring the flexibility of operational processes to adapt effectively to market shocks. The most aligned and coordinated organizations are best positioned to assess current performance gaps and mobilize their tangible and intangible assets to move from a defensive response to a competitive leadership position and constant readiness for change (Garrison & Henderson, 2024:112).

The study of local production organisations such as the Najaf Al-Ashraf Garment Factory in Iraq, however, reveals this organic relationship between alignment and readiness more clearly. This factory faces a double problem: the obsolescence of some technologies and the pressure of competing imported goods. This is a heavy responsibility for its management to assess how well the employees understand the overall strategy and how ready they are to help to achieve it. This research has practical importance as it analyses the opinions of a sample of factory employees to find out the influence of strategic alignment on driving the organisational and operational readiness that will ensure the factory's sustainability and competitiveness (O'Connor & Thompson, 2023, p. 89).

They split the study into four parts so that they can meet their goals and answer their questions. The research methodology is in the first section, the theoretical framework is in the second, the practical elements of the study are in the third, and the main findings and suggestions are in the fourth.

2. Research Methodology

2.1 The Research Problem

Contemporary organizations face rapidly evolving challenges that necessitate achieving harmony and integration between their strategic vision and the orientations of their executive staff. Management thought indicates that the absence of strategic alignment, both vertical (between management and personnel) and horizontal (between operational departments), leads to the fragmentation of organizational efforts and the waste of resources. Many institutions fail to translate promising plans into practical implementation because of weak internal communication channels and employees' lack of understanding of their strategic roles (Al-Ansar & Davidson, 2024:73).

A lack of internal alignment directly and negatively affects an organization's strategic readiness to confront fluctuations of the external environment and competitive pressures. Readiness, in its modern sense, is not limited to providing machinery and equipment, but also to the extent that human, technological and informational capital is aligned with the organization's objectives. Failure to integrate these essential systems leads to a failure of the organization to respond quickly, which leads to a continual state of operational chaos, which inhibits the organization's ability to capitalise on market opportunities and defend against market threats (Miller & Henderson, 2025:112).

The field problem addressed in this study is exemplified by the Najaf Al-Ashraf Garment Factory, which operates within a highly complex Iraqi industrial environment characterized by trade liberalization and strong competition from imported goods. The problem lies in indicators of weak strategic alignment between senior management policies and employee aspirations, coupled with poor horizontal coordination between production lines and marketing units. This raises a fundamental question about the impact of this alignment weakness on the factory's strategic readiness levels (human, operational, and technological) and its capacity to withstand and grow in the face of current challenges (O'Connor & Sterling, 2025:45). Consequently, the problem can be summarized in the following main question: ((How can strategic alignment affect the strategic readiness of employees at the Najaf Al-Ashraf Garment Factory?)) Based on the research problem presented, the researcher seeks to answer the following questions:

- To what extent are the dimensions of strategic alignment available at the Najaf Al-Ashraf Garment Factory, the subject of this research?
- What is the level of impact of strategic alignment on the strategic readiness of the factory's employees?
- How does strategic alignment at the Najaf Al-Ashraf Garment Factory contribute to supporting the established strategy for increasing resilience to environmental changes?

2.2 The Significance of the Study

The significance of this study is apparent in the subsequent aspects:

This study enhances Arabic and local libraries by providing a robust theoretical framework that integrates two contemporary concepts (alignment and strategic preparation).. Arab management thought suffers from a scarcity of studies linking these two variables and applying them to the industrial sector.

To deliver an exhaustive analytical framework through constructing a hypothetical model that clarifies the nature of the correlation and impact relationships between the dimensions of strategic alignment (horizontal and vertical) and the dimensions of strategic readiness, thus providing a foundation for other researchers to conduct similar future studies.

To highlight a vital sector—the ready-made garment manufacturing sector in Iraq—that faces severe

environmental and competitive challenges requiring the adoption of flexible strategic concepts.

To diagnose the current state of the field factory, providing a scientific and practical measurement tool for the management of the Najaf Al-Ashraf Garment Factory to determine the actual alignment level among its staff and their readiness to meet market demands. To offer concrete, practical solutions for decision-makers in the factory and the General Company for Textile Industries, contributing to enhancing their ability to respond to the pressure of imported goods by improving human, technological, and operational readiness.

To assist factory management in understanding how to align and direct its limited resources (human, financial, and technological) in a way that ensures minimizing organizational gaps, reducing waste, and achieving the highest levels of flexibility and productivity.

2.3 Research Objectives

This research is one of the few studies that has addressed problems related to the feasibility of applying strategic alignment to achieve strategic readiness in the factory:

To build a solid theoretical foundation for the two study variables (strategic alignment and strategic readiness) and their dimensions, based on modern strategic management literature and adapting it to suit the manufacturing sector.

To diagnose the level of strategic alignment by examining the reality of its application in its various dimensions (horizontal and vertical) at the Najaf Al-Ashraf Garment Factory from the perspective of a sample of its employees.

To measure the level of strategic readiness by evaluating the extent of the preparedness and readiness of the factory under study in its various dimensions (human, operational, technological, and informational) to face environmental challenges and market competition.

Testing and determining the strength of the statistical effect between strategic alignment and strategic readiness in the study sample.

Measuring and analyzing the significance of the impact of strategic alignment and its dimensions on achieving and enhancing strategic readiness within the

study population, and identifying which dimensions have the greatest impact on achieving this readiness.

Formulating a set of practical proposals and recommendations for the management of the Najaf Al-Ashraf Garment Factory and the related public company, to contribute to addressing weaknesses and enhancing strengths, thus ensuring the alignment of their strategies and achieving a rapid response to market changes.

2.4 Research Hypotheses

In accordance with the forthcoming theoretical exposition, and to address the enquiries of the present study while fulfilling its aims, the primary research hypothesis together with its subordinate hypotheses have been articulated as follows:

I. Main Hypothesis: This states that There exists a notable and affirmative relationship. between organizational alignment and its dimensions (communication, partnership, governance, infrastructure, and skills) and strategic readiness. Strategic Readiness and its Dimensions (Readiness for Management and Leadership, Readiness for Change, Human Capital Readiness) at the Najaf Al-Ashraf Garment Factory

II. Sub-Hypotheses

A statistically noteworthy affirmative correlation exists between the communication dimension and strategic readiness and its dimensions (readiness for Management and Leadership, readiness for change, and human capital readiness) among employees of the Najaf Al-Ashraf Garment Factory.

A statistically noteworthy affirmative correlation exists between the governance dimension and strategic readiness and its dimensions (readiness for Management and Leadership, readiness for change, and human capital readiness) among employees of the Najaf Al-Ashraf Garment Factory.

A statistically noteworthy affirmative correlation exists between the partnership dimension and strategic readiness and its dimensions (readiness for Management and Leadership, readiness for change, and human capital readiness) among employees of the Najaf Al-Ashraf Garment Factory.

A statistically noteworthy affirmative correlation exists between the infrastructure dimension and the strategic readiness dimensions (readiness for Management and Leadership, readiness for change, and human capital readiness) among employees of the Najaf Al-Ashraf Garment Factory.

A statistically noteworthy affirmative correlation exists between the skills dimension and the strategic readiness dimensions (readiness for Management and Leadership, readiness for change, and human capital readiness) among employees of the Najaf Al-Ashraf Garment Factory.

3. The Theoretical Investigation Framework

“Drawing from various studies concerning the research variables (strategic alignment and strategic readiness), including Silvius et al. (2009) for the

independent variable and Dulaimi (2022) and Al-Janabi for the dependent component, the researcher formulated a theoretical framework depicting the relationship between these variables, as illustrated in Figure (1). This framework illustrates that the strategic alignment variable serves as the independent variable, assessed by five dimensions (communication, partnership, governance, infrastructure, and skills). The strategic readiness variable serves as dependent factor and will be assessed through three dimensions: management and leadership readiness, change readiness, and human capital readiness”.

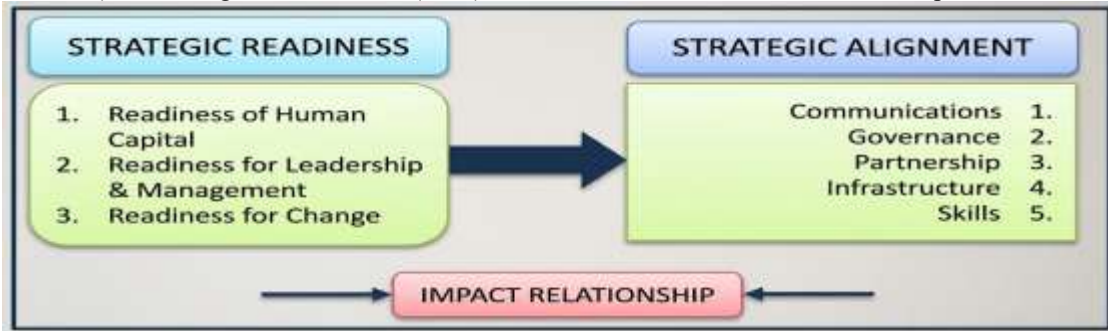


Figure: 2.5 The Theoretical Investigation Framework

Source: Own preparation of the researcher

Coding of research variables and dimensions

“The research survey was constructed with a five-point Likert scale including (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree) to assess the replies of the study participants and the factors under investigation. The scales are shown in Table (1) as outlined below”:

Table (1): Coding of the Research Variables and Dimensions

The variable	variable symbol	Dimension	Dimension symbol	Paragraph code	Number of paragraphs
Strategic alignment	NK	Communications	CO	CO1-CO4	4
		Governance	GN	GN1-GN4	4
		Partnership	PR	PR1-PR4	4
		Infrastructure	TY	TY1-TY4	4
		Skills	SK	SK1-SK4	4
Strategic readiness	GF	Change Readiness	RC	RC1-RC4	4
		Leadership and Management Readiness	RL	RL1-RL4	4
		Human Capital Readiness	RH	RH1-RH4	4

Source: Researcher’s own compilation

Methodology of Research

The study employed a descriptive-analytical methodology by examining the feedback of a cohort of employees at the Najaf Al-Ashraf Garment Factory. To address the study enquiries and fulfill its aims, the investigator employed this methodology to ascertain the nature of the relationship between the existing research variables (organisational harmony and strategic readiness).

Research Population and Sample

The study sample comprised 708 employees from various departments, sections, and divisions of the Najaf Al-Ashraf Garment Factory. Krejcie & Morgan (1970) indicated that 248 replies were necessary to accurately reflect this group.

Consequently, the investigator randomly disseminated 255 questionnaires, of which 253 were retrieved. Two hundred fifty questionnaires were considered legitimate for statistical evaluation, constituting the research sample, whilst three questionnaires were classified as invalid. The rate of response was 98%.

The examination of the data in the initial section of the questionnaire, which relates to the general information of the study sample, led to the categorisation of the sample's characteristics as follows:

Table (2): Characteristics of the Research Sample

1. Sample by Gender	repetition	%
Male	195	78.0
Female	55	22.0
Total	250	100.0
2. Sample by Age Group		
Under 25 years	51	20.4
26-36 years	135	54.0
37-50 years	47	18.8
51 years and above	17	6.8
Total	250	100.0
3. Sample by Job Specialization		
Assistant Observer	4	1.6
Observer	44	17.6
Head Observer	19	7.6
Legal	11	4.4
Technical	14	5.6
Engineer	44	17.6
Assistant Manager	47	18.8
Manager	38	15.2
Other	29	11.6
Total	250	100.0
4. Sample by Educational Qualification		
Secondary	22	8.8
Diploma	47	18.8
Bachelor's	130	52.0
Master's	37	14.8
Doctorate	14	5.6
Total	250	100.0
5. Sample by Years of Service		
Under 5 years	66	26.4
6-10 years	112	44.8
11-20 years	56	22.4
21 years and above	16	6.4
Total	250	100.0

“Source: SPSS V.27 output”

The above table (2) presents the characteristics of the research sample as follows:

Description of the Sample by Social Diversity: The study sample is socially diverse and includes males (195 individuals) (78%) and females (55 individuals) (22%). This means a certain degree of social variety, sharing a common factor: performance, specialization, and excellence as a basic attribute of labor, as shown in Table (2) above.

Age Group Sample: The 26-35 age group is the largest portion, constituting (54%) (135 persons). The second biggest age group is the under 25s (20.4%) (51 persons). This covers the majority of the workforce that falls into these two age groups and brings together experience and knowledge. The mental maturity of the workforce in the research sample was high. The other age groups ranged from 37 to 49 years, which was 18.8% (47 people). The smallest category was those aged 50 years and beyond, at 6.8% (17 persons), as seen in Table 2 above.

The sample of the study by job title: The largest category was “Assistant Manager” at 18.8% (47 persons), compared with other categories. The smallest category was “Assistant Observer” with 1.6% (4 persons). The results show some interesting things. These are the levels of professionalism and the types of jobs people do. More information is provided in Table 2 above.

Study Sample by Academic Qualification: The Bachelor's degree category occupied the top position (52% of the sample, 130 persons). Master's degree category constituted 14.8% (37 persons), and the PhD category constituted 5.6% (14 individuals). This means that the study sample is scientifically and intellectually diverse, bringing together academic knowledge with practical experience and skills learned from previous encounters, problem-solving, and analysis, as well as cognitive capacities in analysis and perception. It shows a comprehension of scientific study and an awareness of the problem surrounding the topic. The other categories (preparatory school and graduation) had different percentages as indicated in table 2 above.

Study Sample by Years of Experience: The category of (6-10) years and the category of (less than 5) years were at the top of the list with percentages of (44.8%) and (26.4%), respectively, which means (112) individuals and (66) individuals, respectively, compared to the other categories. The group of (10-20) years had a percentage of (22.4%) with a frequency of (56) persons, and the category of (21 years and above) had a percentage of (6.4%) with a frequency of (16) individuals. The results show that there are significant indicators embodied in the extent of experience and skill that employees have acquired in their job service and their learning of diverse experiences and knowledge from their previous experiences and their cognitive and analytical abilities, as shown in Table (2) above.

Theoretical Background of Research

The idea of strategic alignment

Strategic alignment is the deployment and assessment of a pre-planned strategy across the company. This means the culture, employees, structure, and governance of the business need to be aligned with the strategy. (Hough & Liebig, 2013: 591)

According to Ciborra (2023: 70), strategic alignment is a dynamic arrangement and organization of the external and internal areas such as strategy, product/market, administrative structures, business processes, and information technology. There has also been discussion of improving economic performance by getting the right match between the external circumstances and internal arrangements.

The general formula for strategic alignment, as outlined by Jorfi et al. (2011, 17), is a strategic method that helps the organization to formulate, integrate, and implement its decisions and design an organizational structure that supports information technology, achieves the organization's goals, enables its survival and aligns with its vision and overall strategy. Al-Ta'i (2020:100) defined strategic alignment from a kinetic perspective as a dynamic process that includes a set of significant strategies and approaches that assist organizations to develop a strategy system that can regulate operations and activities at different levels. This system also helps to avoid conflicts between the organization's goals and its strategic direction for IT investment initiatives.

Strategic alignment is the congruence between business and information technology (Luffman, 2014:3). This results in the right use of information technology at the right time and in the right way, according to the business strategy, objectives and needs. This depicts how information technology is introduced into a company and how strategic alignment fosters the link between information technology and other business activities by adjusting their plans in concert.

Below is Table (3) containing a set of definitions about strategic alignment according to different authors and researchers: Table 3.

Table (3): A set of definitions of the variable strategic alignment

	Source	Definitions
	Lear,2012,7	A means of measuring organizational effectiveness.
	Rashidirad et al ,2013:213	These are the most enduring and reliable rules for a company in developing any competitive strategy.
	Luftman,2014,5	Doing things efficiently and effectively, and achieving and maintaining this synergistic relationship, is not easy.

Source: Researcher's own compilation.

Dimensions of Strategic Alignment

According to Silviu et al. (2009), strategic alignment consists of the dimensions of communication, governance, partnership, infrastructure and skills. This section will describe the dimensions of strategic alignment:

Communications

Good communication is a large part of good alignment. An aligned organization is one in which employees have a shared vision, goals and an understanding of how their particular responsibilities may assist the broader plan. The exchange and unification of viewpoints between the company, IT, and employees can only be achieved through good communication to grasp the needs, vision, goals, and values of each party (Silviu et al., 2009:7).

As Tarland and Lilja (2016:13) stated, communication shows the value of exchanging ideas and how this can foster the development of a successful plan. Many firms have little or no awareness of IT in the workplace, and information exchange is key to success. This is an important consideration for many organizations.

Administration

Governance defines decision-making authority clearly so business and IT stakeholders can have a formal discussion, assess priorities, and allocate IT resources. In IT governance, businesses need to deal with challenges such as the clear definition of decision-making authority and the development of a complete strategic plan at the organizational level (Aldwon, 2014:165).

Governance determines the organisation's leaders, is an important component of strategic management, and is crucial for organizational performance (Hit et al. 2016:310).

Collaboration

Luftman (2014:18) argues that it is important to improve IT and business cooperation and give IT a role in developing business strategies. Successful alignment is built on an organization's appreciation of its partners' contributions, the trust that grows between them, having the necessary people and IT support to back the business, and the sharing of risks and benefits. This alliance must become a scenario where IT leads process and strategy adjustments. That means a well-designed working environment where the IT manager works with the CEO to create clear, detailed goals.

Infrastructure

This is about the management decisions and strategic choices that the organization makes in the allocation of its IT infrastructure resources. IT design, integration and standards should match the organization's objectives. The development of corporate strategy should consider the IT infrastructure early on. IT standards enhance communication and integration of technological components, simple access to information across business divisions and sharing of information with business partners (Sledgianowski et al., 2004:3719).

Skills

For Wirey (Bharadwaj et al., 2013:1405), managers need relevant abilities and expertise to be effective in achieving strategic alignment. No organization can fulfill its goals without highly skilled and talented employees.

This dimension is related to abilities in the organization, including the sort of employees the organization needs, motivation, training, education and culture (Tarland & Lilja 2016:13). The organization can then This dimension defines whether the organization is capable of transformation, whether employees can learn rapidly, whether they have a sense of individual responsibility for innovation, and whether the organization benefits from the entrepreneurial spirit of the employees.

The Idea of Strategic Readiness

The notion of strategic readiness was initially proposed by scholars Kaplan and Norton (2004) in their article “Measuring the Strategic Readiness of Intangible Assets” published in Harvard Business Review. The idea behind this concept is to measure the degree to which the intangible assets, that is, human, informational, and organizational resources, fit the strategy of the firm. In the past, firms judged preparedness exclusively of tangible resources (equipment, machinery, and corporate funds) (Liu et al., 2009:99).

Similarly, Kaewsaeng-on (2024:1) defines the concept of strategic readiness as a tool that prepares an organization to respond to technological, commercial and competitive developments by providing tangible and intangible resources to maintain its market position and enhance long-term success.

Meanwhile, Salih (2024:6) describes strategic readiness as a state of preparedness and the proactive organization of the organization's diverse human, informational, and organizational resources so it can effectively face problems.

Mazlum (2022:2) contends that the notion of strategic preparedness improves organizational resilience during times of uncertainty and fosters self-regulation rather than transitory crisis responses. It offers a preventive technique to lessen the detrimental consequences of environmental uncertainty by adjusting internal elements to external changes.

Below is a set of definitions of strategic readiness according to different authors and academics (Table 4):

Table (4): A Compilation of Definitions of Strategic Readiness

Source	Definitions
Holopainen et al., 2022:3-4	It is the continuous, comprehensive and systematic preparation for anticipated change at the organizational level.
Mazlum, 2022:2	A state of ongoing organizational readiness for large-scale systemic change.
Abdul Rahman&Coleley, 2023: 348	It is a state of early preparation, based on scientific principles, to seize opportunities and confront threats, risks, and crises arising in the external environment.

Source: Own compilation of the researcher. As cited in the literature included.

Extent of Strategic Preparedness

Of measure strategic readiness, the study of Dulaimi (2022) and Al-Janabi was applied. Strategic readiness is measured based on three dimensions: (readiness for change, human capital preparedness, and Management and Leadershipt readiness). Here is an explanation of these dimensions:

Willingness to Change

Readiness for change is a broad term in implementation. It serves as a bridge between intentions, performance, and the outcomes of new strategy implementation. It is described as the willingness and behavioral and psychological state of employees to implement change (Caci et al., 2025:2). Al-Dulaimi (2022:319) and Al-Janabi describe this as a distance between ideas and actions that contributes to the establishment of positive attitudes toward the change process and the shift to other techniques. This is more than just human resource preparation; it embraces the entire organization, with all its nuances and components, at both the individual and collective levels, while reinforcing procedures and policies in ways that benefit the business. In other words, it is the process of rearranging and adapting the organization to its surrounding environment. This is achieved through numerous elements, including: commitment to planning and programming, attention to vertical and lateral integration, and environmental evaluation.

Human Capital Readiness

Sari and Anggarani (2024:462) regard staff readiness and preparedness for the transition process as a positive factor that the organization must nurture and cultivate to implement its strategies. It is defined as a set of talents, abilities, and experiences capable of implementing the strategy to fulfill the organization's goals. The value of human capital is evident in its role in raising productivity, lowering expenses through effective resource use, and increasing sales, which eventually leads to improved overall performance and organizational profits.

C. Management and Leadership Readiness

The importance of this dimension increases with the organization's ability to react to environmental obstacles generated by health crises, economic, political, and military variations, as well as the complexity in decision-making. A true leader must connect with people, share their ideas, and build communication networks to increase the likelihood of sound judgments and goal attainment. Undoubtedly, the leader's fulfillment of these tasks makes leadership a vital aspect of efficient management functions, rather than traditional and authoritarian leadership approaches that encourage employees to resign (Buryk et al., 2025: 2).

4. The Practical and Applied Framework of the Research

This part will examine the reliability and validity of the study measures using a set of criteria to evaluate the measurement model. It will also present the descriptive statistics of the research. Then, the major and sub-hypotheses of the study will be tested using a structural model for the research variables (strategic alignment and strategic readiness) with SPSS v.27 and AMOS v.27 to reach the research outcomes.

4.1. Variables and Items of Coding Scale

The researchers employed Cronbach's alpha test to verify the reliability of the questionnaire. Table (4) shows the overall dependability of the strategic alignment variable (0.708), "The comprehensive dependability of the strategic planning variable stands at (0.926). The test outcomes indicate that the reliability ratio corresponds with the study aims and offers understanding of the connection between the research variables. The autonomous variable is strategic alignment. Strategic alignment encompasses five dimensions: communication, cooperation, governance, infrastructure, and skills. The Cronbach's alpha values for the dimensions of strategic alignment were (0.870, 0.850, 0.846, 0.862, and 0.838), respectively. The Cronbach's alpha for strategic readiness, which is the dependent variable, was 0.781. Strategic readiness encompasses three facets: preparedness for management and leadership, adaptability to change, and human capital preparedness. The reliability coefficients for these dimensions were (0.839 and 0.871). The correlation coefficient among the elements of each dimension or variable is 0.8500. This confirms the reliability of the study tool, suggesting that the participants' answers were not arbitrary. Consequently, the findings are reliable prior to performing inferential analyses. This is illustrated in Table (5):

Table (5): Reliability Coefficient of Cronbach's Alpha and Reliability Coefficient for Research Dimensions and Variables

Cronbach's alpha for variables	Cronbach's Alpha for Dimensions	Dimension	The variable
0.892	0.870	Communications	Strategic alignment
	0.850	Governance	
	0.846	Partnership	
	0.862	Infrastructure	
	0.838	Skills	
0.781	0.839	Change Readiness	Strategic readiness
	0.871	Leadership and Management Readiness	
	0.850	Human Capital Readiness	

Source: Researcher's own compilation.

CFA (Confirmatory Factor Assessment)

"To validate the authenticity of the confirmatory construct, the investigator executed a Confirmatory Factor Analysis. AMOS V.27 is a significant contemporary tool utilised for modelling structural equations through the least squares approach. The aim of this examination is to ascertain the characteristics of the theoretical model, which comprises

latent variables aligned with the proposed dimensions of the scale. These variables steer the course of the measured or dependent variables”.

Table (6) indicators of conformance quality.

Indicators	Conformity Quality Rule
Comparative Fit Rating (CFI)	Greater than or equal to 0.90
Normed Fit Rating (NFI)	Greater than or equal to 0.90
Goodness of Fit Rating (GFI)	Greater than or equal to 0.90
Root Mean Square Error of Approximation (RMSEA)	Less than or equal to 0.08

Hair, J., Hult, G. T., Ringle, C. & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM). Los Angeles: Sage

Confirmatory Factor Assessment of the Independent Variable: Strategic Alignment

Figure (2) & Table (7) presented below depict the outcomes related to the Confirmatory Factor Analysis of the strategic alignment component.

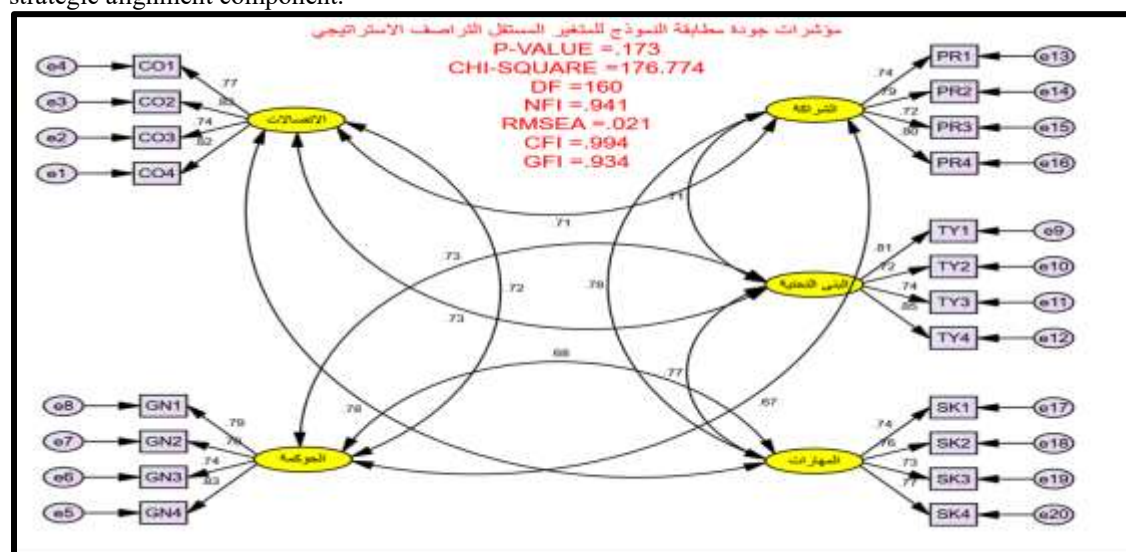


Figure (2) Confirmatory Factor Assessment of the strategic alignment variable
Researcher's collection. Utilizing AMOS V.27

Table (7) Factorial bifurcations of the strategic alignment variable

PATH			S.R. W	S.E.	C.R.	P
CO ₁	<---	Communications	0.774	0.072	13.464	***
CO ₂	<---		0.827	0.072	14.679	***
CO ₃	<---		0.739	0.072	12.668	***
CO ₄	<---		0.820	0.049	15.228	***
GN ₁	<---	Governance	0.793	0.070	13.742	***
GN ₂	<---		0.704	0.072	11.813	***
GN ₃	<---		0.740	0.072	12.583	***
GN ₄	<---		0.832	0.049	15.369	***
PR ₁	<---	Partnerships	0.745	0.054	13.094	***
PR ₂	<---		0.789	0.086	12.029	***
PR ₃	<---		0.720	0.083	10.951	***
PR ₄	<---		0.800	0.084	12.182	***
SK ₁	<---	Skills	0.744	0.051	13.105	***
SK ₂	<---		0.761	0.094	11.627	***
SK ₃	<---		0.728	0.090	11.106	***
SK ₄	<---		0.770	0.089	11.770	***
TY ₁	<---	Infrastructure	0.808	0.051	14.862	***
TY ₂	<---		0.718	0.069	12.010	***

PATH		S.R. W	S.E.	C.R.	P
TY ₃	<---	0.744	0.075	12.566	***
TY ₄	<---	0.850	0.071	14.822	***

Researcher's collection. Utilizing AMOS V.27

The aforementioned results indicate that all factorial interactions concerning the items on the independent variable scale of strategic alignment exceed the minimum acceptability thresholds. Moreover, the standardised S.R.W. assessments indicate that the information for this variable is sufficient for subsequent statistical evaluations. All factorial crossovers for the items were equal to or greater than 50.0; any items falling below this threshold were excluded from the analysis. All variables were noteworthy at the <0.001 threshold, and standard errors fell below permissible limits (Hair et al. 2017). The indices of fit of the model quality for the independent variable, proactive marketing, are presented in Figure (2) above. Ratios of all linked ratios are:

Comparative fitting index (CFI): Values around 1.0 suggest an ideal fit, while those beyond 0.90 show a satisfactory fit. Nonetheless, a score of 0.994 in this context signifies exceptional quality.

The Non-Normed fitting index (NFI) is equal to or greater than 0.90. The limited sample size could influence the results; still, a value of 0.941 indicates exceptional quality.

- The Goodness of Fit Rating (GFI) suggests that values ranging from 0.80 to 0.90 are deemed appropriate for large or intricate models, while the current value of 0.934 signifies an outstanding fit.

Root Mean Square Error of Approximation (RMSEA): A ratio of 0.08 is deemed acceptable; a current value of 0.021 signifies outstanding quality. (Hair et al., 2017).

4.2.2. Confirmatory Factor Assessment of Strategic Readiness: The DV

Figure (3) & Table (8) presented below illustrate the findings pertaining to the confirmation factor assessment of strategic readiness.

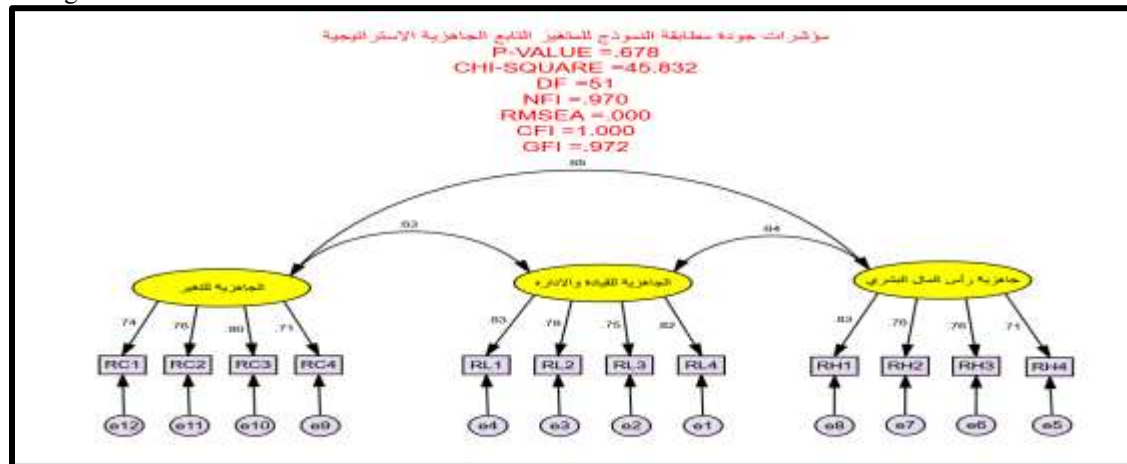


Figure (3) Confirmatory Factor Assessment of the strategic readiness variable
Researcher's collection. Utilizing AMOS V.27

Table (8) Factorial dichotomies of the dependent variable Strategic readiness

PATH		S.R. W	S.E.	C.R.	P
RC1	<---	0.741	0.051	12.824	***
RC2	<---	0.760	0.053	13.240	***
RC3	<---	0.800	0.052	14.173	***
RC4	<---	0.714	0.054	12.206	***
RH1	<---	0.830	0.052	15.166	***
RH2	<---	0.781	0.052	13.505	***
RH3	<---	0.758	0.053	13.343	***

PATH			S.R. W	S.E.	C.R.	P
RH4	<---		0.708	0.053	12.151	***
RL1	<---	Readiness for Management and Leadership	0.825	0.048	15.225	***
RL2	<---		0.776	0.050	13.918	***
RL3	<---		0.747	0.053	13.187	***
RL4	<---		0.823	0.050	15.172	***

Researcher's collection. Utilizing AMOS V.27

“The aforementioned results demonstrate that all factor loadings for the items of the Strategic Readiness scale, which is the dependent variable, exceed the minimum threshold of acceptance. The findings further indicate that the standardised scaling warp (SRW) estimations for this variable are appropriate for future statistical evaluations. All factor loadings for the items were equal to or exceeded 50.0; any items falling below this threshold were omitted from the analysis. The significance threshold was below 0.001 for every item, and the standard errors fell within permissible ranges (Hair et al. 2017). Figure (3) above depicts the quality indicators for model fit concerning the dependent variable, strategic readiness. The findings suggest that all pertinent ratios are:

Comparative fitting index (CFI): Values around 1.0 signify an ideal fit, while those beyond 0.95 denote an outstanding match, with a value of 1.00 representing a flawless fit.

Non-Framed Fit Score (NFI): A satisfactory value is 0.90 or higher, albeit it can be influenced by a limited sample size. A rating of 0.970 indicates superior quality.

Quality of Fit Score (GFI): Scholars suggest that scores ranging from 0.80 to 0.89 might be deemed acceptable in extensive or intricate models, while a value of 0.972 signifies an outstanding fit.

- Root Mean Squared Error of Approximation (RMSEA): Signifies an adequate match. Excellent, with a score ranging from 0.05 to 0.08 deemed satisfactory. A current value of 0.00 signifies outstanding quality. (Hair et al., 2017)”

Descriptive Statistical Analysis

Descriptive analysis is a type of research analysis used to understand and describe various social phenomena. This is done by analyzing data collected through questionnaires or other tools. Descriptive analysis aims to understand phenomena in a detailed and comprehensive manner, analyze and interpret them logically and scientifically, and thus provide deeper meaning and understanding of the studied phenomena. This section reviews the results of the descriptive analysis of the opinions of (250) respondents regarding the level of availability of the research variables, namely (strategic alignment and strategic readiness), at the Najaf Al-Ashraf Garment Factory. This was achieved by using tests for the arithmetic mean, standard deviation, coefficient of variation, and relative importance. Since the instrument for measuring the variables in this research is designed according to a five-point Likert scale, this will enable the researcher to determine the level of availability of the variables based on the category to which the means of respondents' opinions on the items belong, as shown in Table (9).

Table (9) Categories and Degrees of Agreement According to the Weights of the Five-Point Likert Scale

Five-point Likert scale	Level of agreement	Arithmetic Mean		Availability level	
		Category	Mean	from	to
Strongly Agree	Very high	4.2	5	84%	100%
Agree	High	3.4	4.19	68%	83%
Neutral	Moderate	2.6	3.39	52%	67%
Disagree	Weak	1.8	2.59	36%	51%
Strongly Disagree	Very weak	1	1.79	20%	35%

*Sözen, E., & Güven, U. (2019). The Effect of Online Assessments on Students' Attitudes towards Undergraduate-Level Geography Courses. *International Education Studies*, 12(10), 1-8.P:4

4.3.1. Strategic Alignment (NK): Descriptive Analysis of Independent Variable

The statistical software SPSS was used to assess the arithmetic mean as an indicator of the central tendency of the data. Standard deviation and variance were also used to evaluate data dispersion. Moreover, the availability of the research dimensions and variables was studied. The results collected are presented in table (10) below.

Table (10) Descriptive Analysis Results of the Strategic Alignment (NK) Variable

Dimensions	arithmetic mean	standard deviation	Dispirit	relative importance
Communications	3.201	0.798	0.637	0.642
Governance	3.198	0.759	0.576	0.639
Partnership	3.206	0.768	0.589	0.641
Infrastructure	3.198	0.782	0.612	0.639
Skills	3.194	0.754	0.569	0.638
Strategic Alignment	3.199	0.645	0.416	0.639

Researcher's collection. Utilizing AMOS V.27

The descriptive analysis results for the strategic alignment (NK) variable in Table (10) show a balanced mean (3.199), the lowest standard deviation (0.645), and the lowest variance (0.416). This demonstrates the common vision and a high degree of agreement among the staff on the future aims of the factory. The intellectual and organisational harmony thus established constitutes a strong support for management, since all employees work is directed toward a common objective, making it possible to carry out development and expansion plans efficiently. The results for the dimensions of this variable are the followings:

Communication (CC)

This dimension has the highest relative importance (0.642) with appropriate mean (3.201). This means that the factory management is aware of the need for a flexible exchange of information between departments (design, production, marketing). However, the standard deviation (0.798) is relatively high, which indicates that employees disagree significantly on the efficiency of current communication methods. This requires management efforts to streamline official communication channels in an effort to bridge knowledge gaps and prevent operational mistakes on the production lines.

Governance (GN)

The governance dimension has a small reaction (3.198) and a consistent relative importance (0.639). In the setting of the Najaf Garment Factory this means that there are relatively well-defined organisational structures and procedures but they need to be more actively used for the purpose of monitoring and controlling production and financial processes. The variance is low (0.576) in comparison with communication showing acceptable agreement among staff on decision-making methods that supports management to continuously apply transparency and accountability demands.

Collaborate (PR)

The mean of this dimension is the highest in the table (3.206) and it has high relative relevance (0,641). This is a reflection of the plant's administrative success in establishing differentiated strategic and complementary partnerships, internally between departments and externally with fabric suppliers and distributors. Investment in this dimension gives the factory a flexible advantage over their competition to ensure safe supply chains and consistent raw material quality. There is, however, a small difference of opinion (standard deviation 0.768).

Infrastructure (T Y)

This dimension is scored in the middle (3.198) and the answers reveal an evident dispersion and diversity (standard deviation 0.782). This analysis suggests differences in the standard and availability of modern plant and equipment along the production lines within the firm from an administrative point of view. Therefore, the management should 245 minimize regular maintenance, upgrade the sewing and tailoring machines, and improve the physical work

environment to ensure the consistency of the quality of the products and 246 minimize the waste caused by the breakdowns.

Skills (Sk)

The talents dimension obtains the lowest mean score (3.194) and the lowest relative relevance score (0.638). The deficit is clearly an indication of the need for urgent action by factory management leadership and the need to increase the technical and design capabilities of the employees to match the modern-day models. The lower variance score (0.569) confirms the staff agreement on the existence of the skill gap. This has resulted in the creation of customised training programs aimed at enhancing operational efficiency and the quality of the final outputs.

4.3.2. Descriptive Analysis of the Dependent Variable: Strategic Readiness (GF)

Data central tendency was described using arithmetic mean and statistical software SPSS was used. The dispersion of data was evaluated also by the standard deviation and variance. Availability of research dimensions and variables was also analysed. The results are summarised in Table (11).

Table (11) Descriptive Analysis Results of Strategic Readiness (GF) Variable

Dimensions	arithmetic mean	standard deviation	Dispirit	relative importance
Readiness for Change	3.192	0.754	0.569	0.638
Readiness for Management and Leadership	3.200	0.775	0.601	0.640
Human Capital Readiness	3.189	0.770	0.593	0.637
Strategic Readiness	3.194	0.639	0.408	0.638

“Researcher’s collection. Utilizing AMOS V.27”

The findings of the descriptive analysis illustrated in Table (11) on the Strategic Readiness (GF) variable indicate that the most prevailing positive characteristics are the arithmetic mean of 3.194 and the relative importance of 0.638. The low standard deviation (0.639) and variance (0.408) showed a high degree of consensus among staff regarding the factory’s strategic direction. This synergy enables management to carry out plans for expansion and market penetration efficiently. It also indicates a convergence of opinions on the effectiveness of the response mechanisms used. It also decreases the dispersion of data around the mean calculated. The results for the dimensions of this variable are explained below:

Willingness to Change (WC)

This feature demonstrates the flexibility of the manufacturing personnel and their willingness to adapt to the present methods of production and designs. The arithmetic mean is 3.192 and the relative importance is 0.638, acceptable values that reflect the general will to evolve and follow trends. However, the standard deviation (0.754) indicates problems and different levels of acceptance of change among employees, and management needs to establish orientation programs to reduce resistance to operational improvement.

Readiness for Management and Leadership (RL)

Employees believe the current leadership is capable of leading the factory to success, and this dimension had the highest mean (3.200) and relative importance (0.640). However, this dimension had the highest variance (0.601) and standard deviation (0.775) which signifies that there is a significant difference in the leadership styles across the different departments in the factory (e.g. production, inspection and marketing) and the management structure and leadership style need to be standardised.

Human Capital Readiness (RH)

In the table, this dimension has the minimum mean (3.189) and the minimum relative relevance (0.637). This finding is a major area of concern as the garment industry depends on trained and accurate labour. The high standard deviation (0.770) indicates that there is a sizeable skill gap between tailors and technicians and management needs to address this by offering specialised training courses that will improve operational efficiency, reduce fabric waste and improve quality of the final stitching.

4.4. Testing Research Hypotheses

4.4.1. Testing the Central Research Hypothesis

This hypothesis assumes that There exists a notable and affirmative relationship. between organisational harmony (communication, governance, partnership, infrastructure and skills) and strategic readiness (readiness for change, readiness for Management and Leadership and human capital readiness) in Najaf Al-Ashraf Garment Factory. The structural model was developed as shown inFigure (4) to test this idea.

Table (12) Results of the evaluation of the model for this hypothesis.

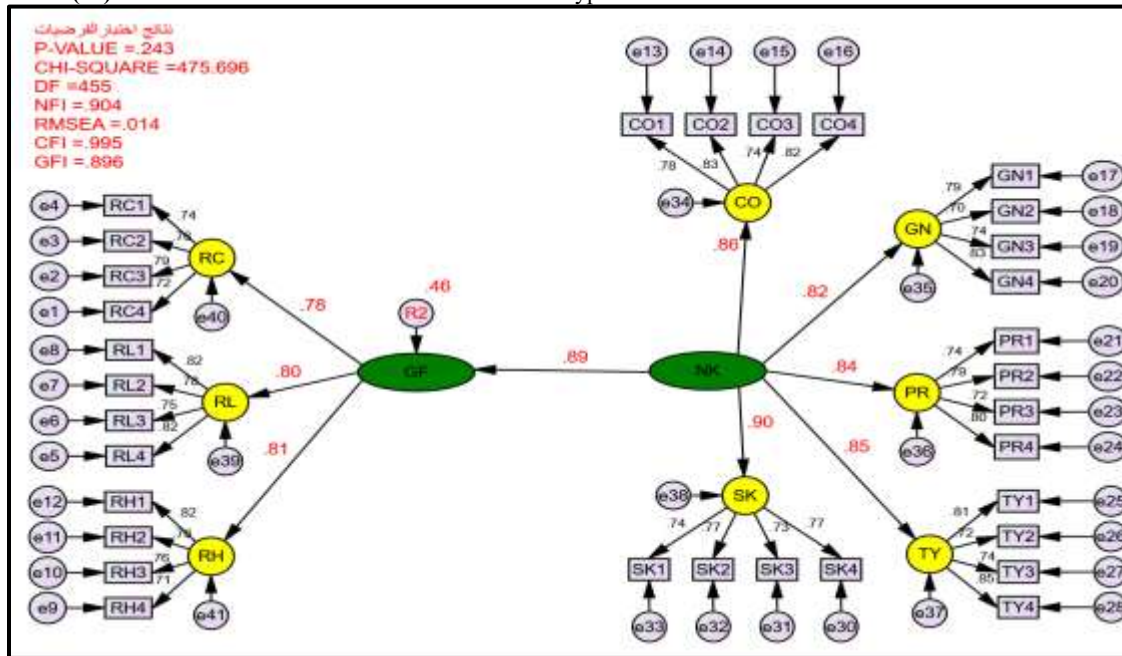


Figure (4) The structural model for testing the main research hypothesis
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Table (12) Results of the evaluation of the main hypothesis model

PATH	S.R. W	S.E.	T- value	P -value	R ²	decision
NK→ GF	0.895	0.051	9.217	***	0.46	Accept

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Table (12) displayed the outcomes of evaluating the primary hypothesis, revealing that the impact coefficient was (0.895). This indicates that the independent variable, strategic alignment, exerted a substantial influence on strategic readiness at a significance threshold below 0.05, accounting for 46% of the dependent variable. The result corroborates the primary hypothesis of the study.

4.4.2. Testing the Sub-Hypothesis of Research

After carrying out the test of the primary hypothesis concerning the relationship between the independent and dependent variables, we will now turn to the test of the sub-hypotheses resulting from it, as illustrated in Figure (5) and Table (13) below:

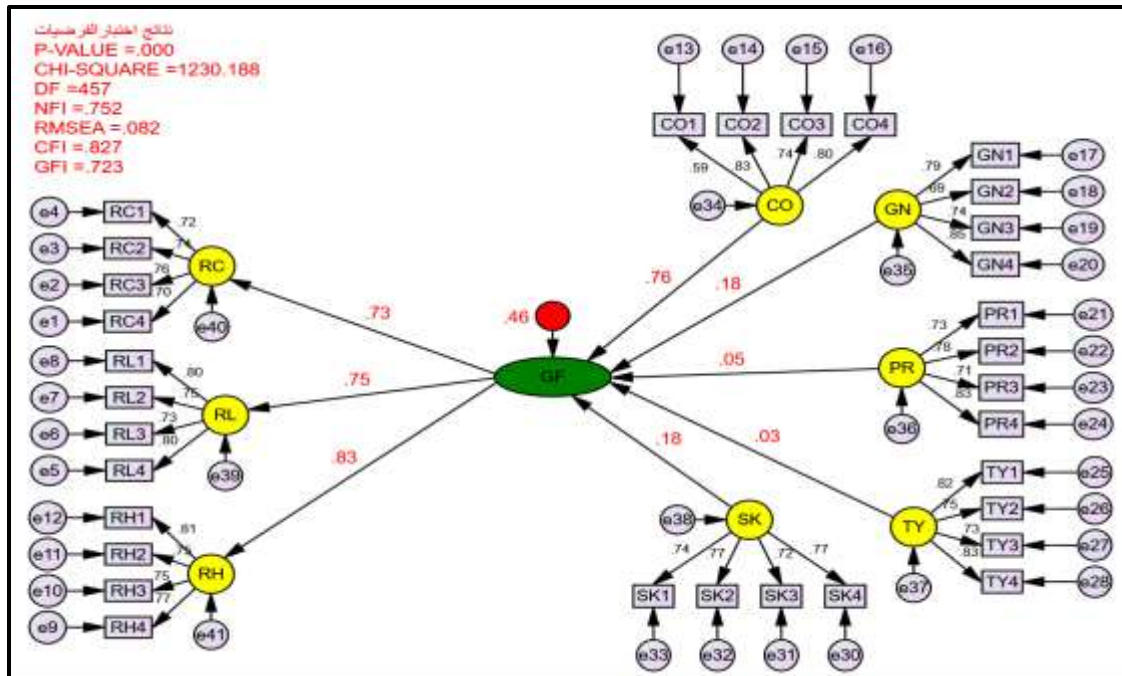


Figure (5) The structural model for testing sub-hypotheses

Table (13) Results of the evaluation of the sub-hypotheses model for the hypothesis

PATH	S.R. W	S.E.	T- value	P -value	R ²	decision
CO → GF	0.76	0.034	3.756	***	0.46	Accept
GN → GF	0.18	0.054	2.956	***		Accept
PR → GF	0.05	0.055	0.869	0.385		Reject
TY → GF	0.03	0.049	0.484	0.628		Reject
SK → GF	0.18	0.056	2.837	***		Accept

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First Sub-Hypothesis: There is a statistically significant and positive relationship between the communication dimension and strategic readiness (readiness for Management and Leadership, readiness for change, and human capital readiness) among the employees of Najaf Al-Ashraf Garment Factory. After review, Figure (5) & Table (13) show a favorable effect of (0.76). The obtained t-value is (3.756), which is greater than (± 1.96) at the significance level of (0.00) and less than (0.05), so the hypothesis is accepted at the research level. Organizational readiness depends largely on employees' abilities.

The second sub-hypothesis indicates a positive and statistically significant relationship between the dimension of governance and the strategic readiness (readiness for Management and Leadership, readiness for change, and human capital readiness) of the employees of Najaf Al-Ashraf Garment Factory. The results in Figure (5) and Table (13) show a positive effect of (0.18). The hypothesis is accepted at the research level because the t-value obtained (2.956) is greater than (± 1.96) at the significance level (0.00) and

less than (0.05). This requires the senior management of the factory to adopt this strategy as the foundation of the company, which contributes to improving human capital capabilities and empowering people to handle problems. With the acceptance of this concept, a pragmatic step is taken to support making strategic choices and to lead the company toward organisational flexibility and high readiness to lead change.

The third sub-hypothesis States That There is a statistically significant and positive relationship between the partnership dimension and the strategic readiness of the employees of the Najaf Al-Ashraf Garment Factory with its dimensions, namely, readiness for Management and Leadership, readiness for change, and human capital readiness. But (0.05) is positive in effect of Figure (5) and Table (13). The value of t obtained is (0.869) which is less than (± 1.96) and the level of significance is (0.385) which is larger than (0.05) which leads to the rejection of this hypothesis at research level. This suggests a weakness of the current factory alliances in that they are not directly focused on human capital development and

leadership training programs. Thus, executive management must review existing alliance and cooperation strategies and reformulate them in an integrated framework that promotes flexibility and the ability to respond to change.

4th Sub-Hypothesis: There is a statistically significant positive relationship between the infrastructure dimension and the strategic readiness of the employees at Najaf Al-Ashraf Garment Factory (change readiness, Management and Leadership readiness, and human capital readiness).. However, Figure 5 and Table 11 show a positive effect of 0.03. The t-value is 0.484, which is less than ± 1.96 , and the significance level is 0.628, which is greater than 0.05. So the hypothesis is rejected at the level of study. This means that infrastructure is a day-to-day operational tool and is not smartly incorporated into change initiatives or leadership development programs. Management therefore needs to review its current strategy and not focus only on physical assets as a way of improve readiness. Instead, the emphasis must be on bridging the gap between current technologies and management techniques so that physical infrastructure is a lever to empower human capital. Infrastructure is often seen as a basic, routine operational tool and is not effectively embedded in change initiatives or leadership development programs.

Fifth Sub-Hypothesis: It shows that there is a statistically significant and positive relationship between the skills dimension and strategic readiness (readiness for change, readiness for Management and Leadership and readiness of human capital) among the employees of the Najaf Al-Ashraf Garment Factory. A favorable effect of (0.18) is found. Figure (5) and table (13) are reviewed. The t-value obtained is 2.837, which is greater than ± 1.96 at the 0.00 significance level and less than 0.05; therefore, the hypothesis is supported at the research level. This requires the plant management to establish sustainable training methods that focus on staff skills development as a vital pillar to support the desired institutional transformation. Thus, the acceptance of this hypothesis provides decision makers with a strong scientific basis for investing in the development of human resources for the maintenance of the strategic advantage of the factory.

Table 13 shows an R^2 value of 0.46, indicating that the dimensions of the independent variable, strategic alignment, explained 46% of the dependent variable, strategic readiness, in the Najaf Al-Ashraf Garment Factory.

5. Conclusions and Recommendations

This segment will examine the results and suggestions of the current study:

5.1. Conclusions

Strategic alignment and the parameters of strategic preparation were positively related, and the link was statistically significant. The main support for increasing the readiness of the Najaf Garment Factory to confront environmental and operational issues is the convergence of views and objectives between senior management and executive personnel.

The research showed that vertical alignment (the alignment of individual employee goals with the factory's strategic goals) directly contributes to improving the readiness of human resources. This alignment helps factory workers understand their jobs better, which in turn boosts their drive to develop their technical skills in garment manufacturing in line with the factory's latest trends of the factory.

It was observed that collaboration and intellectual harmony among the sample members helped to enhance the level of physical and mental energy spent at work, which means that harmony is the basis of creating job commitment.

This research shows that strategic alignment is not only about organisational structures, but also about the alignment of IT infrastructure to the business needs. This alignment improves quality control, inventory management and ability to respond faster to market needs, thereby raising the plant's IT readiness.

According to research, a high degree of strategic alignment fosters a common organisational environment and corporate culture that reduces employee resistance to change. This environment allows the organization to better prepare for the addition of new production lines or to adapt apparel designs to local preferences and market trends.

Strategic alignment method provides the factory with a proactive (not only defensive) readiness that enables it to withstand and position itself effectively in the Iraqi clothing market and face stiff competition from imported goods through fast decision-making and alignment of available resources with available opportunities.

5.2. Suggestions

The study recommends setting up regular and transparent communication channels (e.g. half-yearly meetings and regular newsletters) to communicate the strategic vision of senior management to executive personnel on the production lines. This ensures that the employees know how their day-to-day work is connected to the overall goals of the factory, hence improving human resource readiness.

To upgrade the technical and technological skills of the employees in the ready-made garment industry, there is a need for continuous training programs which should be in conformity with the modern strategic directions of the business. This will help fill skills gaps and make sure there are enough competent people to operate sophisticated machinery and technology."

Setting up joint coordination committees to improve horizontal alignment and to avoid silos is recommended. The members of these committees should be from design, procurement, production, marketing and quality. Such cooperation speeds up the production cycle, speeds up the solution of operational problems, and improves operational readiness.

Factory management to improve the use of integrated resource management software systems (e.g. ERP systems) for production planning, inventory control and process automation. This digital transformation provides decision makers with real time data on efficiency performance and also helps in increasing information preparedness.

It is proposed to set up a suggestion and award system to give incentive to the employees for making creative suggestions on design development or waste minimisation of raw materials. If management adopts the views of its employees, it creates a culture of organisational loyalty and a flexible, self-reliant environment that is conducive to change and continual development (cultural readiness).

Establish a unit or assign a team to monitor and evaluate changes in the external environment (e.g. customer tastes, international costs of raw materials and competition from imported clothing). This proactive move enables the plant to quickly reconfigure itself internally and build flexible strategic readiness to seize opportunities and manage risks.

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