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Performance Appraisal and Job Satisfaction among Nigerian Public Service Workers: Role of Employee Engagement

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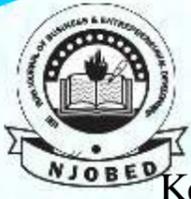
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⁶Department of Arts and Humanities, School of General Studies, Kano State Polytechnic (Corresponding author: knisahmnin@gmail.com, +2348069567223) **Abstract.**

Abstract

Performance appraisal systems represent a strategic instrument within human resource management, intended to enhance workforce quality and performance, and serve as part of control process in administration which many organizations neglect by omission or commission. This conceptual paper examines the effect of performance appraisal on job satisfaction among public service workers, with a particular focus on criteria, feedback and rewards as appraisal variables. Relevant literature was reviewed to update and add value to scholars' efforts in the field. Secondary data was used which revealed that appraisal criteria have a strong influence on job satisfaction; feedback has a positive but non-significant relationship with job satisfaction, and rewards show a positive and significant relationship with job satisfaction. The paper recommends that management should prioritize clear appraisal criteria so that employees understand expectations, thereby enhancing job satisfaction and productivity among others.

Keywords: Leadership Competencies, Organizational Productivity, Public Institutions



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Keywords: Performance Appraisal, Criteria, Feedback, Rewards, Job Satisfaction.

1.0 Introduction

Performance appraisal is a key facet of human resource management and serves as an integral component of the administrative control process (KavussiShal, 2016). For an organisation to achieve its objectives, the planning of the appraisal process is imperative, enabling outcomes such as workforce development, promotions, assignments to managerial positions, persuasion or disciplinary measures, salary increases, performance feedback and identification of educational needs. In this respect, appraisal can be viewed as a mechanism for identifying employee talents and capacities, making them aware of advancement opportunities, plans and goals. An organisation itself requires a valid appraisal system to detect employees' efficiency so as to improve manpower status, increase production/services volume, and effect positive changes in performance trends (KavussiShal, 2016).

Conducting performance appraisal periodically ensures that employees understand what is expected of them

and the metrics against which their performance will be evaluated. According to Laurie (2011), an effective appraisal scheme can identify an individual's strengths and weaknesses, show how strengths may be deployed and how weaknesses may be addressed. The appraisal system should be formalised and support decisions on salary/wage increases, transfers, promotions and dismissals, as well as conveying performance information to the appraisee through progress review. Methods used must be valid: there must be a clear link between performance standards and organisational goals, and raters should be well-trained in system usage (Wolf, 2005). The appraisal method must distinguish effective from ineffective performers and it must be reliable — different raters using the method should rate the same performance similarly; and it must be straightforward to both raters and employees (Fletcher, 2004).

Job satisfaction has gained substantial attention in organisational behaviour and HRM literature due to its association with employee behaviour. Kabir (2011) suggests that job satisfaction is an important aspect of HRM because it influences the relationships among work experiences, values and rewards. Satisfied employees are less likely to leave their employer, have lower absenteeism, and higher productivity (Galanou et al., 2010). Recent empirical studies confirm the link between appraisal practices and job satisfaction. For example, Hamidi (2023) found that positive appraisal experiences enhance employees' sense of achievement, self-worth and trust in the process. Agyare et al. (2023) reported that fairness in appraisal, linkage of appraisal with promotion, role clarity and feedback significantly influence job satisfaction among employees in microfinance institutions in Ghana.



Given the context of public service in Nigeria, there is a need to conceptually examine how appraisal criteria feedback and reward mechanisms contribute to job satisfaction. By clarifying and synthesizing the conceptual linkages, the paper aims to contribute to the HRM literature and provide practical insight for public institution managers.

Conceptual Model: The Effect of Performance Appraisal on Job Satisfaction

Underlying Theories

1. Cognitive Placement Theory explains how performance categorization shapes perceptions and satisfaction.
2. Expectancy Theory explains how perceived fairness and reward expectancy drive motivation and satisfaction.

Independent Variables

1. Performance Appraisal Criteria (PAC) clarity, fairness, and relevance of evaluation standards.
2. Performance Appraisal Feedback (PAF) timeliness, constructiveness, and developmental nature of feedback.
3. Performance Appraisal Rewards (PAR) perceived link between performance outcomes and rewards.

Dependent Variable

Job Satisfaction (JS) employees' cognitive and affective evaluation of their job experiences.

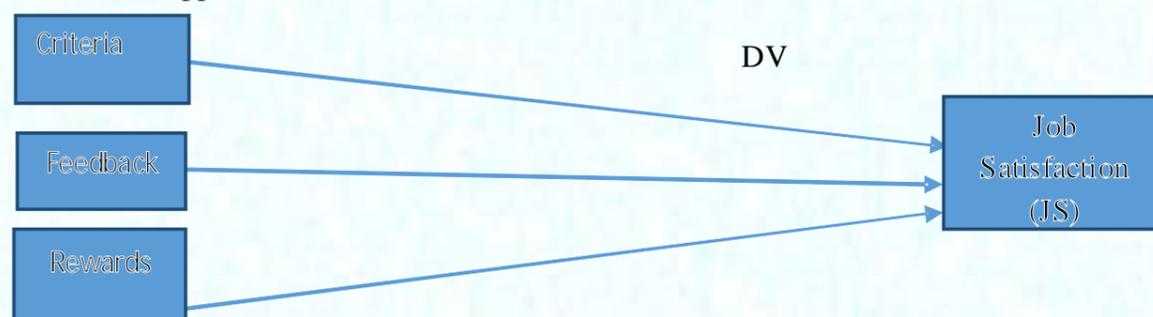
Mediating and Theoretical Linkages

Cognitive Placement Theory suggests that when employees perceive themselves fairly classified as competent or high performers, they experience recognition, belonging, and satisfaction.

Expectancy Theory suggests that when employees see clear connections between performance, feedback, and rewards, they are motivated and satisfied.

Conceptual Model

Performance Appraisal(IV)





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The model proposes that performance appraisal dimensions (criteria, feedback, rewards) collectively influence job satisfaction, moderated by cognitive and motivational mechanisms from the two underpinning theories. The fairness of classification (Cognitive Placement Theory) and the perceived link between effort and outcomes (Expectancy Theory) together determine the degree to which employees feel satisfied and committed

2.0 Literature Review

2.1 Concept of Performance Appraisal

Performance appraisal is widely regarded as a critical function in human resource management, concerned with identifying, measuring, influencing, and developing employee performance relative to set norms and standards over a given period. In effect, the system ensures that the available knowledge, skills, and abilities in the workforce are optimally deployed, thus enhancing employee productivity and contributing to competitive advantage (Singh et al., 2018). The purpose of performance appraisal extends beyond mere assessment: it supports workforce development, promotions, assignments to managerial positions, disciplinary or persuasive actions, salary increases, performance feedback, and training needs identification. As such, appraisal systems can help organizations align individual performance with strategic goals (Wilson, 2017).

A well-designed performance appraisal system should include clearly defined criteria for successful performance, deliver performance feedback, and enable an equitable reward system. The performance criteria should be aligned with organizational goals, relevant to specific roles, specific and measurable, under the employee's control, and understood and accepted by both raters and ratees (Dattner, 2018). Likewise, feedback is widely recognised as a crucial element: it supports employee self-development, encourages desired behaviours, and enables corrective actions. Indeed, appraisal systems are most effective when participants perceive them as fair, accurate, and credible (Carroll & Schneier, 2017; Levy & Williams, 2004). If the appraisal process is perceived as unfair, biased, or lacking credibility, employees may ignore or resist the feedback and the system may fail to achieve its intended objectives.

Moreover, recent research emphasises that the ****justice**** of performance appraisal (i.e., how fair employees perceive the process to be) has a significant impact on outcomes such as job satisfaction, work engagement and organisational identification (see e.g., Al-Shobaki et al., 2023). Thus, appraisal systems must not only be well-designed, but also well-delivered, inclusive and transparent.



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2.2 Concept of Job Satisfaction

Job satisfaction has been a major topic of interest in organisational behaviour and human resource management literature over the past several decades. It is generally defined as an employee's affective reaction toward their job, based on a comparison between what they expect from their job and what they perceive they are actually receiving (Mosadeghard, 2013; Locke, 2010). In practice, job satisfaction is considered a multi-dimensional construct, encompassing intrinsic aspects (e.g., meaningfulness of work, autonomy, skill utilisation) and extrinsic aspects (e.g., pay, promotion, supervision, work environment) (Misener et al., 2016; Kivimäki & Kalimó, 2014).

Satisfied employees tend to exhibit lower turnover intentions, lower absenteeism, and higher productivity (Kabir, 2011). Moreover, job satisfaction is positively related to other favourable organisational outcomes such as innovation, continuous quality improvement, participation in decision-making and customer satisfaction (Rad & Yarmohammadian, 2016). Thus, understanding the antecedents of job satisfaction remains critical for human resources and organisational leaders, especially in public sector contexts where employee motivation and retention can be challenging.

2.3 Relationship between Performance Appraisal and Job Satisfaction

There is a substantial body of empirical work examining how performance appraisal practices relate to job satisfaction. For instance, a longitudinal study found that formal performance appraisals linked to monetary outcomes (bonuses or promotions) had a significantly positive effect on job satisfaction (Rufino, 2023). The study emphasised that when appraisal systems were not linked to tangible outcomes, the positive effect was reduced or absent.

Another recent study in higher education institutions found that an appropriately designed performance appraisal system (PAS) in Palestinian HEIs had potential to increase employee job satisfaction. In a healthcare context, research during the COVID-19 pandemic indicated that perceived job satisfaction mediates the relationship between performance appraisal, reinforcement and job tasks for healthcare professionals. Furthermore, recent evidence shows that appraisal justice (fairness) positively influences work engagement and organisational identification – which are themselves tied to job satisfaction.

Performance Appraisal Criteria: When the criteria used for appraisal are clearly aligned with job roles, measurable, accepted by employees and understood, the appraisal system stimulates role clarity, fairness perceptions and thereby positive attitudes including job satisfaction.

Performance Appraisal Feedback: Timely, specific and constructive feedback helps employees perceive that the organisation is investing in their development; this strengthens employee-organisation relationships, raises motivation, and thus enhances job satisfaction.



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Performance Appraisal Rewards (and Outcomes): When appraisal results are linked with tangible rewards (e.g., promotions, bonuses, recognition), the positive impact on job satisfaction is stronger (Rufino, 2023). Without such linkage, even well-designed appraisal programmes may fail to enhance satisfaction.

Perceived Justice: Employees' perceptions of procedural justice, distributive justice and interactional justice within the appraisal process modify the impact of appraisal on job satisfaction (Al-Shobaki et al., 2023).

Mediators and Moderators: Work motivation, employee engagement, organisational identification, and other attitudinal factors mediate or moderate the relationship between appraisal practices and job satisfaction (Salim et al., 2023).

2.4 Towards a Conceptual Framework and Proposition Development

Based on the foregoing review, the conceptual paper adopts a framework where the appraisal system's dimensions (criteria, feedback, rewards) influence job satisfaction. Work motivation may serve as a mediator in this relationship, while perceptions of appraisal justice may act as a moderator. For example:

Proposition 1 (P1): The clarity and alignment of appraisal criteria will have a positive relationship with employees' job satisfaction.

Proposition 2 (P2): The quality and developmental orientation of performance appraisal feedback will have a positive relationship with employees' job satisfaction.

Proposition 3 (P3): The linkage of appraisal outcomes (rewards, promotion) to performance appraisal will have a positive relationship with employees' job satisfaction.

Proposition 4 (P4): Work motivation mediates the relationship between the appraisal system (criteria, feedback, rewards) and job satisfaction.

Proposition 5 (P5): Perceived appraisal justice moderates the relationship between the appraisal system dimensions and job satisfaction, such that the positive effects are stronger when justice perceptions are higher.

This conceptual model aligns with contemporary findings (e.g., Hamidi, 2023; Salim et al., 2023) and offers a robust basis for your discussion, particularly in the public sector context in Nigeria.

Theoretical Framework

Cognitive Placement Theory

Cognitive Placement Theory, as discussed by Alex (2015), explains how human resource managers classify employees' performance into categories based on observed outcomes and competencies. The theory emphasizes that employees are often grouped as high or low performers, and such classification guides managerial actions such as training, promotion, and performance enhancement strategies. High-performing employees are often identified for talent development and leadership opportunities, whereas low performers are targeted for coaching, supervision, and performance improvement programs.



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From a conceptual standpoint, this theory highlights the evaluative and comparative nature of performance appraisal systems in organizations. It suggests that appraisal outcomes shape employees' self-perceptions, motivation, and satisfaction. When employees perceive fairness, recognition, and developmental feedback within the performance classification system, their level of job satisfaction tends to increase (Nguyen & Bui, 2021; Li & Zhang, 2023). Conversely, perceived bias or inconsistency in appraisal classification may result in dissatisfaction and disengagement (Okpara&Adeniji, 2022). Thus, the cognitive placement process serves as a cognitive map through which employees interpret their worth and prospects within the organization.

Expectancy Theory

Expectancy Theory, originally developed by Vroom (1964) and refined by modern scholars (e.g., Van Eerde& Thierry, 2021; Stajkovic&Luthans, 2023), posits that individuals' motivation to perform is determined by the expected relationship between effort, performance, and outcomes. The theory is anchored on three core elements: Expectancy, instrumentality, and valence.

Expectancy refers to an employee's belief that effort will lead to improved performance.

Instrumentality denotes the perception that effective performance will be rewarded.

Valence represents the value an individual places on the anticipated reward.

Within the context of performance appraisal, expectancy theory implies that employees are more likely to be satisfied with their jobs when they believe that fair appraisal systems link performance to desirable outcomes such as recognition, promotion, and career advancement (Latham &Pinder, 2022). Job satisfaction thus emerges when employees perceive alignment between appraisal results and actual rewards (Amin & Ahmed, 2021).

Similarly, the theory underscores that appraisal systems should not merely evaluate performance but should also communicate clear expectations, provide actionable feedback, and ensure that rewards are perceived as attainable and fair. When these conditions are met, performance appraisal becomes a powerful motivator that enhances job satisfaction and organizational commitment.

3.0 Methodology

3.1 Research Design

This study adopted a case study research design with a quantitative orientation. Although the paper is largely conceptual, an embedded empirical illustration was introduced to strengthen the practical relevance of the arguments advanced. The case study approach is appropriate because it allows for an in-depth examination of performance appraisal practices and their implications for job satisfaction within a real-life public sector context.



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3.2 Case Study Area

The case study focused on Kano State Civil Service, with particular reference to selected ministries under the Kano State Government. The public service in Kano State provides a suitable context due to its structured performance appraisal system, diverse workforce, and relevance to ongoing public sector reforms in Nigeria.

3.3 Population of the Study

The population comprised public service workers in selected ministries, departments and agencies (MDAs) in Kano State. These included administrative, professional, and supervisory staff who are subject to the formal annual performance appraisal system.

3.4 Sample Size and Sampling Technique

A sample of 150 employees was selected using a stratified random sampling technique. Employees were stratified based on cadre (junior, senior and management staff) to ensure adequate representation. This technique enhanced the reliability and generalizability of the findings within the case study context.

3.5 Method of Data Collection

Primary data were collected through a structured questionnaire adapted from validated instruments in prior studies on performance appraisal and job satisfaction. The questionnaire consisted of four sections:

- * Section A: Demographic characteristics of respondents
- * Section B: Performance appraisal criteria
- * Section C: Performance appraisal feedback and rewards
- * Section D: Job satisfaction

Responses were measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

3.6 Validity and Reliability of the Instrument

Content and face validity were ensured through expert review by academics in human resource management. Reliability was assessed using Cronbach's Alpha, with all constructs recording coefficients above the acceptable threshold of 0.70, indicating internal consistency.

3.7 Findings and Discussion

Findings from the case study revealed that clear and well-defined appraisal criteria had a strong and positive influence on employees' job satisfaction. Respondents indicated that when performance expectations were transparent and aligned with job roles, they felt more confident, fairly treated and satisfied with their jobs. This finding supports Expectancy Theory and aligns with prior studies that emphasized the role of clarity and fairness in appraisal systems.



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The results also showed that performance appraisal feedback had a positive but weak relationship with job satisfaction. While employees appreciated receiving feedback, many respondents indicated that feedback was irregular and largely evaluative rather than developmental. This suggests that feedback alone may not significantly enhance job satisfaction unless it is timely, constructive and focused on employee development.

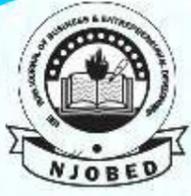
Similarly, the study found a positive and significant relationship between appraisal-linked rewards and job satisfaction. Employees who perceived a strong linkage between performance outcomes and rewards such as promotion, recognition or financial incentives reported higher levels of satisfaction. This finding strongly supports Expectancy Theory, particularly the instrumentality and valence components.

The findings revealed that appraisal criteria and rewards play a critical role in enhancing job satisfaction, while feedback requires improvement in terms of regularity and developmental orientation. The study therefore concludes that an effective performance appraisal system must integrate fairness, transparency, constructive communication and reward linkage to achieve positive employee outcomes in the public sector.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are made:

1. **Clarification of Appraisal Criteria:** Public sector organisations should develop and communicate clear, measurable and job-related appraisal criteria to enhance transparency and employee trust in the system.
2. **Improvement of Feedback Mechanisms:** Management should ensure that appraisal feedback is timely, constructive and development-oriented rather than fault-finding, to enhance its impact on job satisfaction.
3. **Strengthening Reward Linkages:** There should be a visible and consistent link between performance appraisal outcomes and rewards such as promotion, recognition and incentives.
4. **Capacity Building for Appraisers:** Supervisors and managers should be trained on effective performance appraisal practices to reduce bias and enhance fairness.
5. **Policy Review in the Public Service:** Government authorities should periodically review performance appraisal policies to align them with contemporary human resource management best practices.



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Conclusion

This study examined the relationship between performance appraisal and job satisfaction among Nigerian public service workers, using Kano State Civil Service as a case study. Drawing from Cognitive Placement Theory and Expectancy Theory, the study established that performance appraisal is not merely an administrative routine but a strategic human resource management tool that shapes employees' perceptions, motivation and satisfaction.



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THE IMPACT OF FUNDING ON MICRO, SMALL AND MEDIUM ENTERPRISES (MSMES) AND WOMEN-OWNED (WSMES) IN KANO STATE

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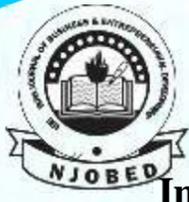
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Abstracts

This study examines the impact of funding programmes on Micro, Small and Medium Enterprises (MSMEs) and Women-owned Small and Medium Enterprises (WSMEs) in Kano State, Nigeria. The research objectives encompassed appraising stakeholder awareness of existing funding programmes, identifying barriers to fund accessibility, and proposing viable recommendations for improvement. Employing a survey methodology, the study utilized structured questionnaires administered through simple random sampling. Data analysis incorporated descriptive statistics, specifically weighted mean calculations for decision-making based on sample characteristics and measures of central tendency. The findings revealed significant awareness of funding programme existence among MSMEs and WSMEs owners; however, critical knowledge gaps persisted regarding programme locations and access procedures. Additional challenges identified included misconceptions about bank loan mechanisms, inadequate stakeholder engagement in sensitization workshops, and insufficient involvement of enterprise owners in capacity-building initiatives organized by funding institutions. The study recommends that government bodies and financial institutions adopt comprehensive approaches to funding scheme implementation, ensuring efficient policy financing. Furthermore, the Central Bank of Nigeria and allied funding institutions should intensify sensitization campaigns regarding available funding opportunities. Reducing prohibitive interest rates would facilitate access for entrepreneurs with viable business proposals. Additionally, encouraging SME unions and associations to formalize government registration would strengthen collective bargaining power and enhance members' fund accessibility. These interventions could substantially improve financial inclusion and enterprise sustainability in Kano State.

Key words: Funding, Small and Medium Enterprises (SMEs), Women-owned Small and Medium Enterprises (WSME) Micro Small and Medium Enterprises (MSME)



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Introduction

The development and growth of SMEs in Nigeria and Kano State in particular could be linked to support from government and non-governmental organization. Perhaps, this leads to the establishment of various microfinance banks that gives loans at a lower rate, offer advisory services, provide equity investment, and capacity building programs to beneficiaries. Organizations such as International Finance corporation (IFC) provide supports and invest in projects that would promote economic growth, reduce poverty, improve standard of living and provides advisory services to SMEs to help them grow. Another funding organization that gives support to SMEs is the European Union Bank (EUB) which work as intermediary to reach SMEs through local banks and give loans and support for the growth of SMEs. The Nigerian Investment and Promotion Commission (NIPC) which among their role is connecting businesses with opportunities and creating conducive atmosphere to SMEs. Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) is a key institution established by government to support and promote SMEs in Nigeria. While the Kano State Micro Finance Agency is solely targeted to SMEs in Kano State. Others, include CBN which gives intervention through Small and Medium Enterprises Development Fund (SMDF), Development Bank of Nigeria (DBN) which offers a long-term loan and support to bust economic growth, Bank of Agriculture (BoA) among others. All these outlets play vital role to ensure the growth and expansion of businesses in Kano State. However, there are other non-informal outlets existing in various markets in the state. They all give support at either start-up or in the course of expansion of the businesses, most them could be exploitative in nature consequently discouraging deserving entrepreneurs in Kano State.

Statement of the problem

Kano State is the second-largest commercial city in Nigeria beside Lagos, it is the commercial nerve center of Northern Nigeria and equally is the most populated state in the country. Kano is being referred to as the Centre of commerce due to the high number of SMEs and innovative entrepreneurs, especially women in the nook and crannies of the city. Commercial activities in the state attract different people that lead to the presence of high number of SMEs outlets managed by both foreign and local entrepreneurs operating in different industrial areas. Government both state and federal have reeled out different funding programmes to support SMEs perhaps, to provide employment and sustain micro economic activities. Despite the effort by government and other Non-Governmental Organization (NGOs) interest to support SMEs through establishment of various programs at federal, state and local government levels. The issues revolving around funding of SMEs especially women-owned businesses remain a major turning point to the growth and their survival in the country specifically in Kano State. Accessibility to funding institutions, the conditions and policies attached to the process and other requirements involved prompted this study.



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Research Objective

- 1: To determine the level of awareness of the existence of funding programs and their activities toward development of SMEs in Kano State.
2. To identify strategies that will improve funding mechanism and support to SMEs in Kano State.

Research Questions

- a. How available and effective are funding programs/institutions in Kano State.
- b. What are the challenges faced by SMEs owners in accessing funds in Kano State?

Scope of the study

The research focused on the activities of funding institutions and how it affects Small and Medium Enterprises in Kano State. Local businesses in kano municipality including those operating in the major markets and other women-owned businesses operating from their households are the target of the study.

Literature Review

Concept of Funding

Funding is the act of providing resources to finance, support or guide an educational program or an entrepreneurial outlet at start up, in the course of implementation or expansion of the project. It is usually in form of money to finance the project or extra efforts to ensure smooth operation by an organization or government. Funding is also seen as part of the process in which entrepreneurs with a business concept accumulate all the necessary resources including the capital to venture into a market. The need for funding business could arise at the beginning of the business where the business is trying to be established or after the establishment of the business in terms of expansion, diversification, investment in a new technology or managing the day-to-day operation. In economics funds are injected in to a market as a capital by lenders and taken as loan by borrowers. Closing the funding gap for SMEs is a policy priority for public and private sectors players in a developing economy like ours. This coincident the Global SMEs facility report of Sept'2022 which said SMEs are less likely to secure bank loan than large farms, instead they rely on internal funds or cash from families and friends to lunch and run their enterprise.



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Micro, Small and Medium Enterprises (MSMEs) count a major role in the global economy which took a large share of GDP, majority of people operating in this sector are doing it using small amount of money gathered through personal savings or loans from family and friends. Majority of these Small and Medium Enterprises (SMEs) operates in the informal sector. They are unregistered, unregulated and have little or no access to formal banking services (Umar 2022) this coincident the Global SMEs Facility Report of Sept'2022 which said SMEs are less likely to secure bank loan than large farms, instead they rely on internal funds or cash from families and friends to lunch and run their enterprise. (Essien 2021) revealed that 'access to finance is a big challenge to SMEs in the developing market, especially in the Nigerian market due to the country's low credit GDP'. This type of businesses mostly operated and managed by individual persons with high capacity and talent in terms of technology, innovation, and small educational qualification with the hope to excel beyond expectation but their constraints is always lack of support both moral and financial support. A study shows SMEs in Nigeria account for 96% of the total businesses but are often force to close because the lack of access to finance. Another study showed that SMEs suffer from poor management skills due to lack of adequate training and low level of education of their operators which often lead to a high rate of failure and default in loan repayment (Umar 2022). Therefore, there is need to encourage such small business through funding to withstand internal and external pressure and to favorably compete with already existing and established businesses.

SOURCES OF FUND

For a business to cover its whole funding idea which will allow it to realize its business plan it most likely need several finance sources. Basically, this source is divided into equity and external capital.

EQUITY: This involve raising capital through the sale of ownership interest to raise fund for business proposal or sales of shares in an enterprise.

EXTERNAL SOURCE: This comprises all the sources of fund outside the equity. It includes venture capital, soft funding, angel investors, grants, loans, debt financing, crowd funding among others.



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- a. Crowd funding: is a method collecting small amount of money from a large number of people. Typically, via online platforms.
- b. Soft funding: This refers to a financial support that is not strictly tie to the achievement of financial return or profit. It may come in form of grants, donations, subsidies or other forms of support. Is often provided by government agencies, charitable organizations to support project or initiatives that have social, cultural or educational value but may not generate immediate financial return.
- c. Debt financing: It involves borrowing money to be paid over time with interest such as loans or bonds. It often comes with clear terms for payment or return on investment.
- d. Venture capital refers to a form of private equity financing in which investors provide funds to early-stage, high-growth companies with significant potential for returns. This type of investment typically involves acquiring equity or ownership stakes in start-ups or emerging enterprises. Beyond financial support, venture capitalists often offer strategic guidance, mentorship, and networking opportunities to enhance the company's growth and success.
- e. Angel investors are wealthy individuals who invest personal funds in start-up or small businesses, particularly during their formative or challenging early stages. Unlike traditional lenders, angel investors assume higher risk by financing innovative ideas they find promising, anticipating returns only if the business eventually becomes successful.

CONCEPT OF SMALL AND MEDIUM ENTREPRISES

Small business is privately and independently owned and operated company that is in size and in revenue depending on the industry

The small business venture of this nature could be seen as “the sum total of the organized efforts by which people engage in commerce and industry to provide goods and services needed to maintain and improve the standard of living and quality of life to which each of us aspire” Sabo & Olanrewaju (2012) in Muhammad (2024)



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CATEGORIES OF SMEs IN KANO STATE

Different criteria are used in defining SMEs depending on the country. The world bank (2023) considered the total number of employee and asset value of an enterprise in defining SMEs. but for the purpose of this study the nature of the businesses will be used to classify the SMES according to the product line produced by the enterprise.

1. Agricultural enterprises: This consist of Crop farming, livestock agro processing etc.
2. Textile and garments industry: This involves traditional and modern clothing production
3. Food processing: These produce local delicacies and packed food products
4. Whole sale and retail trades: Consists of small shops, markets and distribution businesses
5. Crafts and handcrafts industry: Traditional crafts like pottery, weaving and leather works.
6. Transportation and logistics: Small transportation company, delivery services etc.

The Role of SMES in the Economic Development of Kano State

Globally, Micro Small and Medium Enterprises (MSMEs) are known for their contribution to poverty reduction through employment generation. However, in Nigeria, the potential of employment generation of small businesses has been seriously constrained by lack of access to finance, either to start, expand or modernize their present scope of economic activities

A joint MSMEs' survey by SMEDAN and NBS in 2017 has shown that the number of micro-enterprises in the Kano State has increased from 1,794,358 in 2013 to 1,824,961 in 2017. However, the number of small enterprises has declined from 7,790 in 2013 to 2,298 in 2017; and that of medium enterprises from 496 in 2013 to 143 in 2017, respectively which could be as a result of lack of finance by small business owners.

Small and medium Enterprises play a significant role in the transition and development. It typically accounts for more than 90% of all firms outside the white-cola jobs sectors constituting a major source of employment and generate significant domestic and export earnings (Taiwo et al. 2016).

Before the discovery of oil in Nigeria agriculture, Micro, Small and Medium scale industries was major contributor for foreign exchange earnings for the country. According to NBS/SMEDAN MSMEs 2021 survey report, in PWC 2024 report reveal that MSMEs contributed 46.32% to GDP, accounted for 6.21% of exports, 96%.9% of employment The role of SMEs in economic development is well established as a sector, is the bedrock of entrepreneurship and innovation in which normally is driven by individual creativity that leads to job creation, poverty reduction, wealth creation, income distribution and reduction of income disparity MSMEs play a significant role in the development of Kano State like those in other countries of the world. (Salisu 2021) detailed these roles among the others as follows:



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1. **Poverty alleviation:** poverty is in ability to attain a minimal standard of living measured in term of consumption need or income required to satisfy them. Kano State is not among the state with high level of puberty being a state with high level of MSMEs in the northern part of Nigeria that produce a lot of opportunities for young entrepreneurs and this contribute to reduction of poverty in the state. enabling women and VSMEs owners to access credit to grow their businesses could increase the annual income of women-owned SMEs in emerging markets by an average of 12% within next 10years (GFPR 2022)
2. **Employment creation:** MSMEs assist government in the provision of employment opportunities to many people in the country particularly being the most populated state in the country by reducing unemployment in the state. They operate in urban, semi-urban and rural areas and in many areas of businesses such as manufacturing, servicing, transportation, mining, whole selling, retailing, restaurants etc. by doing this, they are able to provide means of livelihood to people of Kano State in terms of employment.
3. **Use of local resources:** The MSMEs of Kano State excel in production of simple consumer goods that use local raw materials as compared to large scale manufacturing establishments. Their industries like textiles, food and beverages, dyeing, furniture, foot wear, leather work etc. depend on local resources. A typical example is Kofarmata Dye pits that use local material for dyeing.
4. **Conservation of foreign exchange rate:** this is another contribution of MSMEs through import substitution. The product from these sectors serves as substitute for those that might have been imported with considerable amount of foreign exchange. the total product of MSMEs is enough to meet local demand of the local consumption. The typical example of can be seen in KofarWambai that produces high quality of shoes substituting that of foreign made from quality
5. **Development of Entrepreneurship:** MSMEs serve as bedrock for entrepreneurship and innovation development. Many centers were established by federal and state governments to provide technical and managerial training to entrepreneurs. The main aim of this is to develop viable modern MSMEs and also to improve the existing ones through use of more efficient techniques of production and provide consultancy services for proprietors and managers of MSMEs.
6. **Preservation of cultural heritage.** MSMEs studies the acts and wants of a particular society within which they operate and tailor their production towards the satisfaction of those needs and wants of that society. The produce product according to the culture background of the community in which the situated.
7. **Equitable distribution of income.** All the facilities and incentive made available to SMEs by government are found in every part of the country. Therefore, the growth and development of SMEs are bound to ensure equitable of income and wealth to many people unlike large scale industry industries because only few people run them and concentrated in urban areas.
8. **Encouragement of traditional craftsmanship:** MSMEs consist of mainly household units carrying different types of industrial activities in a traditional way. This situation offers a lot of opportunities for intensive development and improvement of traditional craftsmanship skill particularly in such areas like leather work, carpentry, shoemaking etc.



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Research Methodology

The study adopted a survey research design, utilizing a structured questionnaire as the primary instrument for data collection. To ensure comprehension among all respondents, the research assistants used the translated the questionnaire items for participants with limited understanding of the original language. The target population comprised very small business owners, women-owned small and medium enterprises (WSMEs), and other SMEs, including manufacturers, wholesalers, and retailers across the 44 local government areas of Kano State. Six major metropolitan markets were purposively selected due to their concentration of manufacturers, wholesalers, and retailers. Additionally, women entrepreneurs operating from their households were purposively included to capture diverse perspectives from producers and sellers of various products.

Simple random sampling was employed to select respondents for the study. The questionnaire contained twenty-one (21) items, translated into Hausa to enhance inclusivity and understanding among participants. The questionnaire items were reviewed by experts in the department of entrepreneurship of FCE (T) Bichi, equally the translation to Hausa was validated by experts from the department of languages of the college. Data were analyzed using descriptive statistics, specifically measures of central tendency (mean). Decision criteria were based on the weighted mean: mean scores exceeding half of the maximum obtainable score were interpreted as positive responses to the research questions, whereas scores below this threshold indicated negative responses.

The research has sampled fifteen (15) subjects each from the six (6) popular markets in Kano metropolitan thus: Sabon Gari market, Muhammad Abubakar Rimi market popularly known as Rimi market, KofarWambai markets, Kurmi market and Yankaba vegetables market. It also involved women operating from their house hold.



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9.Table1. Sample Estimates

S/N	Markets	Subjects
1	Sabon gari	15
2	Rimi	15
3	Yankaba	15
4	Kofarwambai	15
5	Kurmi	15
6	Women-owned businesses	15
Total		90

Results and Discussions

RESEARCH QUESTION ONE: How Available and Effective are Funding Programs in Kano State.

This research question is interested in finding out the presence, functions and extent of funding programs by both Government and Non-Governmental Organizations in Kano State.

Nine items were developed to address this research question and the respondents were rated base on their perception on the existence and functions of the funding institution in Kano State. The outcome of the weighted values is contained in table below;

Table 2.0

Weighted responses on the availability and efficiency of funding programs in Kano State

S/N	Questions	S/Agreed	Agreed	Disagreed	S/Disagreed	W/Mean	Remarks
1	SMEs owner's awareness of any Government/ NGO support to SMEs	24	36	18	12	2.8	Positive
2	benefit from any government/NGO support program to SMEs	6	6	30	48	1.7	Negative
3	Knowledge of person/group that benefited from such support	30	36	18	6	3.2	Positive
4	SMEs owners' interest in collecting government/NGO support	24	18	12	6	2.6	Positive
5	Perception on government support given to politicians rather than SMEs	30	30	18	12	2.9	Positive
6	Having a business account by SMEs owners	18	24	18	30	2.9	Positive
7	Awareness of bank loan to SMEs	6	12	42	30	1.9	Negative
8	Knowledge of any person/group of SMEs that benefited from bank loan	6	48	24	12	2.5	Positive
9	Interest of SMEs owners in collecting bank loan to support their business	6	18	30	36	1.9	Negative



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SMEs in Kano State are aware of the availability of government support and could even identify beneficiaries as indicated in the mean responses of items 1 and 3 in the weighted mean table, however most of them have not benefited from such facility as indicated in responses of item two with weighted mean of (1.7) which is below the accepted mean value of (2.5). The study further revealed that, SMEs owners have interest in obtaining support and are not aware of bank loans (1.9) for entrepreneurial activities, though, some of them even have bank accounts for their businesses, but their perception has been government support is meant for and are always given to politicians as indicated in item five with a positive mean of (2.9). Paradoxically the SME owners are not interested in collecting bank loans (1.9), even though they could identify persons and groups that benefitted from same weighted mean value of items 8, (1.9). In another dimension, other subjects considered for the study; Women-owned (WMEs) and very-small businesses (VSMEs) are not aware of the Non-Governmental Organization (NGO) support agencies to SMEs nor of the people that benefitted from it, despite the fact that they need such support and are ready to comply with conditions that could be put in place. They are equally of the belief, that the support is politicized in the sense that only people with political connection can receive the support, while bank loans is scaring, due to non-flexibility of the conditions attached to the collection and repayments.

Table 3. What are the challenges facing by SMEs owners in accessing funds in Kano State? And What are the simple strategies that could be adopted to enhance funding to SMEs in Kano State? These research questions focus on why the SMEs in Kano State are not benefiting from such support programs. What is their perception, experience and interest on bank loans and other non-banking supports? And how can these challenges be overcome.

Twelve (12) questions were also designed and the respondents rated the list base on their current experiences and perceptions on the situation of funding programs/ supports to SMES in Kano State which could be the causative reasons why majority of SMEs owners in Kano States are not benefiting from such support programs. The outcome of the weighted mean values contained in the table below

Responses on challenges facing by SMEs owners in accessing funds and the strategies that could enhance funding to SMEs in Kano State

S/N	Questions	Strongly yes	Yes	No	Strongly No	Weighted Mean	Remark
1	SMEs owners experience on sensitization/ workshops on funding	12	18	42	18	2.3	Negative
2	SMEs owners' interest on sensitization/ workshop on funding	24	30	18	18	2.7	Positive
3	Having union/group by SMEs owners with the same type of business	12	42	24	12	2.6	Positive

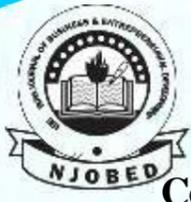


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5	SMEs registered association with government	12	30	18	30	2.3	Negative
6	Ability of associations/unions to provide collateral for loans and other support to SMEs members	6	24	30	30	1.8	Negative
7	Experience on bank loans to SMEs interaction	0	12	30	48	1.6	Negative
8	Awareness of support agencies to SMEs like SMEDAN	6	18	28	24	2.08	Negative
9	Realistic conditions for obtaining support to SMEs	6	18	30	36	1.9	Negative
10	Collection of loan individually rather than group by SME owners	36	24	18	12	2.9	Positive
11	Flexibility of repayment conditions	6	18	30	36	1.9	Negative
12	Need for pre/post disbursement workshop/training of governmentsupport/bank loan	36	30	24	0	3.1	Positive

Study show that funding agencies are not inviting SMEs owners to the sensitization/ workshops programs as seen from the negative responses of item one (2.3) of the table above despite the willingness of such SMEs owners to attend such programs if invited as indicated from the responses of item two of the table with weighted mean of (2.7). Although, these SMEs owner have their unions/association at the local level base on their responses on item three (2.6) but these associations are not government registered association as indicated in item 5 from the table by the negative responses of (2.3) which is below the acceptable weighted mean value of 2.5 perhaps this could be among the reason why their associations cannot stand for them as collateral for loans and other support as indicated in item 6 (1.8). consequently, the responses of item 7 on the table, shows that these SMEs owners have not experienced any interaction with banks on loan collection as indicated in the table with below acceptable mean of (1.6) this could be why they are looking at the conditions and process for bank loans collection as not realistic as indicated on item 9 with weighted mean of (1.9) and equally the non-flexibility of the terms of the repayment as in item 11(1.9) hence there is need for sensitization to SMEs owners on how to manage the collected money and the terms of repayment before the disbursement of the money as in responses of item 12 indicated by (3.1).



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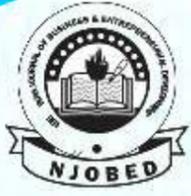
Conclusion

The study concludes that, there are funding programmes in Kano State whose operations are wrongly perceived by stakeholders. Interested entrepreneurs to explore such funding programmes/agencies, have no access to benefit from it. Perhaps, this is because of the absence of strong union that can stand for them. Encouragement and motivation strategies to could facilitate access seem to be lacking. Collateral before obtaining some types of funding is equally an issue while others are afraid of collecting loan because of the business risk involved. Unrealistic conditions of repayment and politicizing awards are gateways that ought to be checked for progress.

Recommendations

Based on the findings and conclusion of the study, the following recommendations are presented;

1. Government and financial institutions should develop policies that are almost uniform to the funding schemes initiated by them.
2. CBN and other funding institution should embark on extensive sensitization of funding opportunities to SMEs and especially women entrepreneurs.
3. High interest rate of double digits which could deter people with genuine business ideas be reduced so as to make borrowing cheaper
4. SMEs unions/associations should be encouraged to register with government and be given mandate to stand as collateral to the eligible members.
5. All administrative bottleneck which makes funds inaccessible to SMEs should be reviewed.



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The Impact of Corporate Characteristics on Real Earnings Management in Nigerian Financial Institutions

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Abstract

Corporate managers are mostly in confrontation with the predicament of what corporate characteristics lead to quality of financial reports of their corporations. The study, therefore, aims at examining the effect of corporate characteristics on the real earnings management of listed financial institutions in Nigerian. All financial institutions quoted on the Nigerian Stock Exchange are considered as the population for this study while 45 out of these institutions whose accounting year-ends 31st December are considered as the sample size. Secondary data is utilized from the annual financial reports of the sampled institutions between the years 2018-2023, which is obtained from official website of Nigerian Stock Exchange. The study used correlation research design to examine the relationship between independent and dependent variables while controlling for other variables. Descriptive statistics, correlation, and Driscoll Kraay standards error regression analyzes are carried out to test the hypotheses developed in the study. The study specifically establishes that profitability (PROF) and firm size (FSIZ) have a significance positive effect on real earnings management (REM). The study recommends that regulatory authorities should improve the quality of financial reports for institutions (especially area of discretionary expenses) in order to ensure transparency and accountability in the reported earnings.

Keywords: *Corporate Characteristics, Real Earnings Management, Profitability, Firm Size, Financial Institutions.*



1.0 Introduction

It is acknowledged that a corporation with strong firm characteristics may have better earnings in financial reports (Singh, 2025; Rajpurohit, & Rijwani, 2024). Some commonly believe that effective and efficient corporate characteristics are the tool that enhances its financial reporting quality. The very strong query that corporate managers of entities present as an answer to it is; “What will be consider as better firm characteristics to attain the corporate objective in global village?” in trying to provide an answer to this issue, various studies have been conducted by different scholars (Bassiouny, 2016; Amasiatu et al, 2023 Odokwo et al, 2024 & Wulandari et al, 2025). The recent discussions on the issue with relevance theory that assumes that a financial reporting quality is dependent of its appropriate combination of firm characteristics, but this postulation is in a world with no myopic behavior of corporate managers. However, the recent empirical evidence clearly points out that firm characteristics is matter (Nandi & Ghosh, 2013).

The Nigerian economy is the largest in Africa, relies fundamentally on a healthy and well-organized financial system to sustain growth, stability, and development. Financial institutions surrounding a various selection of entities like deposit money banks, microfinance banks, development finance institutions (DFIs), and insurance companies are the essential instrument through which economic activities are energized and managed. Their vital importance lies in their ability to act as financial intermediaries, effectively mobilizing funds from surplus economic units and channeling them to deficit units for productive economic activities. This crucial function drives investment, capital formation, and ultimately, Gross Domestic Product (GDP) for growth. In a developing nation like Nigeria, where challenges like access to credit and infrastructure deficits persist, the financial sector is not just a participant but a catalyst for economic transformation, supporting priority sectors such as agriculture and small and medium-sized enterprises (SMEs) and advancing the critical goal of financial inclusion. (Olawoye & Erediauwa, 2025)

A gap is identified based on previous literature on the relationship between corporate characteristics and real earning management which constitutes motivation of the study. Many studies of earning management focused on accrual earning management using Jones Model, Modified Jones Model and Dechow, Sloan and Sweeney model, however there are few studies that employed real earning management practice using Roychudwary Model, 2006, this study intend to close the literature gap by adapting specific component of Discretionary expenses for the Roychudwary Model this is because of the rampant evidence from corporate managers using discretionary expenses to manipulate earnings. In essence, the conduct of this study is providing the treasured information needed by corporate managers to make appropriate decisions regarding the firm characteristics which lead to produce quality of reported earnings. The study is also providing Information to relevant authorities to analyze discretionary expenses as measure of real earnings management of listed financial institutions in Nigeria. Furthermore, this research work is add value to existing literature and serve as reference and basis for future study especially on firm characteristics and real earnings management.



2.1 Literature Review and Hypotheses Development

This section is to summarize the prior literature regarding the effects of corporate characteristics on earnings management which include the following;

2.1.1 Profitability

Profitability is an important variable used by several scholars as a yardstick for measuring firm attributes. For instance, Farouk and Hassan (2014) use profitability as a proportion of profit after tax to a total asset of a firm. Profitability is considered as earnings per share (EPS) of a firm (Ahmed, et al., 2009; Godo, et al., 2024; Milala, & Darniaty, 2024). Qi et al., (2018) utilize return on asset (ROA) and return on equity (ROE) as proxies of firm's profitability. Similarly, Odokwo et al (2024) use profitability as a return on assets of a company. It is established that profitability is significantly and positively related to earnings management, which means that when there is an increase in profit of a company, there will be a corresponding increase in manipulative accounting. Furthermore, the study carried out by Setyoputri and Mardijuwono (2020) have similarly argued that change in profit influence the manipulation of accounting figures especially when it is low. On the other hand, Jessica (2020) opines that having a meagre profit is not enough evidence of earnings management behavior.

In essence, a company profit level is a significant factor that influences a corporate manager's decision to intervene in financial reporting process. In addition, profitability serves as a powerful incentive for corporate manager to manage earnings but real earnings management often damages the future profitability by sacrificing optimal economic decision for short term reporting gains.

2.1.2 Firm Size

Firm size has been used as an important variable by various studies that examined the relationship between firm characteristics and earnings management (e.g., Rajpurohit & Rijwani, 2024 ; Ghosh, 2009). Specifically, firm size affects earnings management because Uwuigbe et al., (2015) argued that larger firms stand in a better position in their economic environment to employ individuals With great talents over their counterparts (small firms) in order to have an effective and efficient plan and decisions that may significantly aid in achieving organizational goals. Furthermore, larger firms are found to perform superior to smaller firms, due to their capacity and dimensions in risk diversification (Ghosh, 2009; Kim. 2003). Nevertheless, more firm size are required for better firm growth because they are considered competent in monitoring functions (Bansal, 2024; Qi et al., 2018), and larger firms are significantly effective than smaller firms due to their large economies of scales and recruiting of highly skilled employees (Parte-Esteban, & García, 2014). Jessica (2020) who studied the impact of firm characteristics on earnings management behavior for the period of 2009 to 2018(7130 year-observations), used firm size as an independent variable. Their result shows that firm size has a significant negative effect on earnings management (represented by accrual based model). In the same vein, Wulandari et al., (2025) examined the influence of good corporate characteristics on Firm Value of Islamic and conventional banks in Indonesia and employed firm size as an independent variable. The result of their analysis shows that firm size has a significant positive impact on firm value.



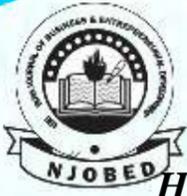
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Dachomo and Bala (2020) investigate the corporate attributes (firm growth and firm size) on the earnings quality of listed companies in Nigeria. The study employed 616 firm years' observations for the period of 2012 to 2018. The data of the study are extracted from annual report of listed firms and Thomas Reuters. Their result indicates that small firm size is more likely to reduce earnings manipulation than larger firm size. Whereas, Amasiatu, et al., (2023) found a mixed result on the effect of firm size on earnings management of non financial firms listed on the Nigeria exchange limited. The result shows that firm size and firm growth have significant negative effect on earnings management. Consequently, the control variable for this study is firm growth which is measured by the natural logarithms of a firm's total assets (Gwabin., et al.,2024).

3.0 Hypothesis

Earning management remains a vital issue that has come to the front burner in recent debate on corporate scandal regarding myopic behavior of corporate manager (Uwuigbe et al. 2015). It involves the intentional manipulation of financial reports to either mislead investors on the underlying economic position of a firm or to gain some contractual benefits that depend mostly on accounting figures (Kalbuana, et al., 2021; Joe & Ginting, 2022; Uwuigbe et al., 2015) Henceforth, corporate managers can use their power of right and responsibility over the firm to achieve personal interest at the expense of shareholders and other stakeholders (Jaunanda, & Oktavianti, 2023). In this regard, Joe and Ginting, (2022) opined that management could influence reported earnings by making accounting choices or by making operating decisions discretionally. Prior studies on managers' decision to manage earning using accruals or by real activities remain one of the most common researches in the economics and financial literatures, and it continues to be relevant till date. Over the last two decades, prior literatures have examined the determinants and consequences of earnings management (Dechow et al., 2010; Kim, 2003). However, a fundamental issue that has received very limited attention over the years is the effect of firms' characteristics or attributes on earnings management. Nomura and Yamamoto (2025) in their study observed that large firms are less likely to engage in earnings management due to the fixed costs associated with maintaining adequate internal control procedures over financial reporting. Farouk and Hassan (2014) in a related study observed that large firms have less incentive to smooth earnings than small firms. Similarly, Sánchez-Ballesta and García-Meca (2007) suggested that large concentrated firms are less likely to engage in earnings management than small firms. Ghofir and Yusuf (2020) also observed that firm size is that attribute that influences a firm's tendency to manage earnings. Accordingly, they opined that smaller firms are more likely to manage earnings to avoid reporting losses than larger firms. On the other hand, Amasiatu, et al., (2023) opined that larger firms were more susceptible to manipulating their current accruals to overstate the earnings of the experienced equity offerings. Similarly, findings from Wulandari et al., (2025) reiterated the fact that large companies manoeuvred their earnings to avoid the negative earnings report. In a related study, Waweru (2013) observed evidence that high return on asset is positively associated with the likely hood of violating professional ethic that ensure the quality of financial report. Also, Setyoputri and Mardijuwono (2020) observed that firms near default employed income-increasing accounting changes in order to delay their technical default. Bansal (2024) supports this view by arguing that firms with higher short term liability are expected to adopt accounting procedures that increase current income. Although, some considerable amount of literature exists on the relationship between firms characteristics and earnings management in developed economies, most especially the United States, United Kingdom and Republic of China; however, the similar is not true in developing economies like Nigeria where there is a relatively scarcity in literature in this area, together with the enormous institutional differences between Nigeria and other developed economies. For this reason, the study attempt to find out the relationship between firms' characteristics and real earnings management of Nigerian listed financial institutions. On the basis of the literature reviewed, the following hypotheses were developed and stated below in their null forms:



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H1: There is no significant negative relationship between profitability and real earnings management of listed financial institutions in Nigeria.

H2: There is no significant negative relationship between firm size and real earnings management of listed financial institutions in Nigeria.

4.0 Research methodology

The research design for this study is the correlation research design. According to Gujarati, (2009), this design is applied when the research study combines cross sectional data and time series data to establish the relationship between variables. In line with Uwuigbe (2015), relevant information is gathered from the financial reports of the 45 sampled listed financial institutions in Nigeria, but 10 financial institutions are excluded from the sample size due to the availability to obtain complete data. The time frame for this study is 6 years of which financial reports for 2018-2023 periods. In addition, the Driscoll Kraay standard error regression analysis from the STATA version 14 is utilized to analyze the data collected with issue of cross sectional dependency. The panel data method is employed in this study, because the data are cross-sectional and time series data in nature.

4.1 Model and Variables

The independent variables for this research are firm profitability and firm size. However, firm growth is considered as control variable for this study. This is because it is also considered as a potential determinant of earnings management. The control variable is used because it provides a better predictability and analysis of the relationship that exist between the variables. For this reason, introducing variables of the study to address this research issue, the regression equation model can be formulated as follows:

$$REM_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 FSIZ_{it} + \beta_3 FGRT_{it} + \epsilon_{it} \dots \dots \dots \text{Model}$$

Where, REM_{it} is the level of real earnings management. $PROF$ as a proxy for profitability, $FSIZ$ is a substitute for firm size; $FGRT$ is a measurement of firm growth: Error term.



4.2. Measurement of Real Earnings Management

In this section, one component out of three methods to measure the level of real earnings management from the research of Roychowdhury (2006) is utilized, which include the abnormal levels of cash flows from operations (AbCFO); cost of service (AbCOS) and discretionary expenses (AbDE) (Cohen and Zarowin, 2010; Zang, 2012).

The dependent variable in this study is real earnings management and it was measured by discretionary expense (DSC). However, based on prior literatures, the discretionary expense approach to real earnings management is adopted. This is because, the estimation of the scope of real earnings management is better served with discretionary expense models though the use of discretionary line items is best used for accuracy in detection. And also this approach makes it easier to manage earnings through advertising expense, research and development. In addition, it attempts to control for the endogeneity bias in the original. More so, according to Abubakar et al. (2017), this approach is one of the appropriate models used to detecting real earnings management in financial sector.

The author provides the following regression in order to calculate the abnormal level of discretionary expense:

$$DE_{it}/A_{it-1} = \alpha_0 + \alpha_1(1/A_{it-1}) + \alpha_2(REV_{it-1}/A_{it-1}) + \epsilon_{it}$$

Where: DE_{it} : discretionary expenses of firm i in period t ; A_{it-1} : Total assets of firm i in year $t-1$; REV_{it} : Revenue of firm i in year t ; ϵ_{it} : A residual term that captures the level of abnormal discretionary expenses (AbDE) of firm i in year t ; α_1 , α_2 , α_3 . are firm specific parameters.

5.0 Findings and Discussion

The analysis is start by the descriptive statistics, the correlation analysis and then the results shown and discussed to see whether the hypotheses are validated or not. The descriptive statistics shows the mean, minimum and maximum values and the standard deviation of the dependent and independent variables. The variables used in this research are the independent variables (profitability and firm size) and the dependent variable which real earnings management.

5.1 Multicollinearity test

Multicollinearity refers to inter-correlation of the independent variables (Baltagi et al., 2013). The multicollinearity test of the study is shown in Table 1. The result of the multicollinearity test based on the VIF of each of the variables in this study falls within the acceptable level of 10. As suggested by Gujarati (2009), the value of VIF for the explanatory variable in a regression model should not be more than 10. From the values of the VIF, the highest VIF value comes from F_{siz} with 1.05 and the least VIF is 1.00 for Prof. The VIF mean is 1.03 which affirms that multicollinearity is not an issue in the model of this study.

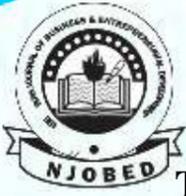


Table 1: Multicollinearity Test

Variable	VIF	1/VIF
Fgrt	1.040	0.960
Fsiz	1.050	0.962
Prof	1.000	0.997
Mean VIF	1.030	

5.2 Autocorrelation

Autocorrelation, which is also known as serial correlation, can be defined as a violation of the assumption that the error terms are uncorrelated and independent. Therefore, the size and direction of one error term have no bearing on the size and direction of another (Baltagi, et al, 2013). Autocorrelation is said to exist where the error term of the model correlated over time, since the assumption is to have zero relation (Born & Breitung, 2016) for regression purpose specifically panel regression to be considered worth reporting, the model of the study must be free from autocorrelation. This is one of the conditions as well as assumptions of multivariate regression. Therefore, this study utilises Wooldridge test to assess the existence or otherwise of a serial correlation (autocorrelation) in this study. The result of Wooldridge test is presented in Table 2. Based on the result of Wooldridge test in Table 2, there is serial correlation in this study for the reason that the p-value is greater than 0.05 (F=0.366; p>0.05).

Table 2

Wooldridge Test (panel data autocorrelation)

Variable	F-value	P-value
DISC	F(1, 44) 0.366	0.0733

5.3 Cross-Sectional Dependence

Cross-sectional dependence, also known as contemporaneous correlation, refers to correlation of the residuals across entities (Born & Breitung, 2016). Petersen (2009) identified two forms of cross-dependence: first, when the firm residuals are correlated across years and the second, when the residuals of a particular year are correlated across firms. The authors further argued that accounting and finance data are more likely to have the problem as entities. This is because firms have strong similarities in between and across time, and disregarding the problem could lead to overestimation or underestimation of the true picture of the coefficients.

Table 5.3

Pesaran's Test of Cross-sectional Dependence

Variable	Pesaran's test of cross-sectional independence	p-value	Average absolute value of the off-diagonal elements
DISC	1.283	0.1994	0.385

The test is applied to REM models and confirmed no existence of cross-sectional dependence. From Table 5.3 the average absolute value of the off-diagonal elements obtained from the Pesaran's Test of Cross-sectional Dependence is 0.385 and its associated probability value is 0.1994. Using the rule of hypothesis testing with the probability value of less than 5% then the null hypothesis of that test should be rejected. The result indicates that contemporaneous correlation is not a problem in this study.



5.4 Descriptive statistics

Table 1 shows descriptive statistics of all variables shows that real earnings management measure by discretionary expense which shows between -0.200 and 0.125. The average of practice of real earnings management in the Nigerian financial institutions is 0.006. This portrays that on average financial institutions practice real earning management on their day to day operation. Firm size shows between 1.125 and 1.952 which means that the larger the firm sizes the higher the expected agency problem that the firm is likely to experience abnormal discretionary expenses manipulation. Firm growth in the financial institutions display as high as 2.847 with a mean of 2.790.

Table 4: Descriptive of variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Disc	270	0.006	0.086	-0.200	0.125
Prof	270	0.030	0.275	-0.924	4.167
Fsiz	270	1.559	0.209	1.125	1.952
Fgrt	270	2.790	0.013	2.626	2.847

5.5 Correlation matrix

Table 5 presented the result of the correlation matrix which displays none of the coefficients is higher than 0.99 as suggested by Hair *et al* (2014). Specifically, the highest correlation is 1.000 for Dsc. Therefore, the correlations coefficients have no multicollinearity issues. And also shows that Prof, Fsiz and Fgrt have a positive correlation with Dsc at 10% level of significant. The correlation of Prof with Fsiz and Fgrt are positively correlated at 10% while Fsiz and Fgrt are negatively correlated.

Table5; Correlation analysis

Variables	Dsc	Prof	Fsiz	Fgrt
Dsc	1.000			
Prof	0.097*	1.000		
Fsiz	0.087*	0.018*	1.000	
Fgrt	0.071*	0.050*	-0.192	1.000

*** Correlation is significant at the 0.01 level (1-tailed); ** Correlation is significant at the 0.05 level (1-tailed); * Correlation is significant at the 0.10 level (1-tailed).

There is also a weak negative correlation between firm size and Fgrt reflecting a weak correlation.

5.6 Multiple regression results

Table 6 presents the result of the relationship between the Prof, Fsiz, Fgrt and Abnormal discretionary expenses. The result indicates that abnormal discretionary expense has significant positive relationship with explanatory variables. This is an indication that establishing abnormal discretionary expenses as a real earnings management increased myopic behavior of corporate managers to participate in real earnings management in Nigerian financial institutions..



Table 6; multiple regression analysis

	Drisc/Kraay				
Rem	Coef.	Std. Err.	T	P>t	
Prof	0.027	0.012	2.160	0.036	
Fsiz	0.046	0.006	7.220	0.000	
Fgrt	0.613	0.100	6.130	0.000	
_cons	-1.765	0.273	-6.470	0.000	
No of Obs	270				
F(4, 44)	100.50				
Prob	0.0000				
R-Square	0.0427				
Root MSE	0.0845				

Note. REM =real earnings management; Prof = Profitability; Fsiz = Firm size; Fgrt= Firm Growth. *** Significant at 0.01 level, ** significant at 0.05 and * at 0.1 level.

The result is not in line with agency and resources dependency theories which suggest that corporate manager as a member of the management of a company is expected to assist the management to carry out their obligation of monitoring activities of the company in order to protect the interest of shareholders and other stake holders. This is also consistent with Winata, and Simon, (2024) who find that profitability reduces the firm's real earnings management. The findings, therefore, demonstrate that level of profitability is increase, the earnings management decrease which means that the participation of corporate manager to practices real earnings management must be reduced.

6.0 Conclusion

The main objective of this research is to analyses the effects of corporate attributes on real earnings management. To achieve this, the authors measured the level of real earnings management and employed Driskalkray regression model to quantify the effects of corporate attributes as explanatory variables to real earnings management. This study extends the current literature in earnings management by focusing on real earnings management and examining this in the context of an emerging economy of Nigeria. Our contributions are meaningful in various aspects. Firstly, contrary to a large amount of prior research in developed economy, the study found that there is significant relationship between corporate attributes and real earnings management. The implications to the policies makers is to enhance the effectiveness of investors' rights protection mechanisms and allow more monitoring modes from investors and other relevant stakeholder like regulatory agency. Higher earnings would motive the management's efforts to avoid participation in earnings management. Secondly, this study shows the evidence of corporate managers' motivations to engage in operational discretions to achieve earnings benchmarks as well as the adverse effects of profitability and firm size on real earnings management. This supports the prior study findings.

The results show that profitability and firm size have a significant positive relationship with real earnings management; this signifies that existence of profitability and firm size helps in increasing the possibility of manipulating discretionary expenses. This is consistent with prior scholars such as Ghofir and Yusuf (2020) who proved that firm size cannot restrain real earnings manipulations. Regarding the control variables, indicating that firm growth in term of the total asset has a larger amount of real earnings manipulations through abnormal discretionary expenses activities. This is consistent with Roychowdhury, (2006) who establish that managers manipulate their sales activities through abnormal discretionary expenses.



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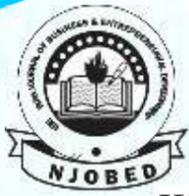
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Future research on corporate characteristics and real earnings management could consider the different methodology such as interviewing financial analysts and other relevant stakeholders can be undertaken to gather industry views on issues related to corporate characteristics. Interviews may shed some light on the effectiveness of corporate characteristics. Findings from the interviews could provide fruitful suggestions on how best to design corporate characteristics for different business setting(s) to ensure financial reporting quality.



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The Impact of Accounting Software on Financial Performance of Restaurants Business in Kano, Nigeria

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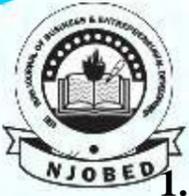
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ABSTRACT

Accounting software has now become widely issue in business which may deter to achieve organisational objective. However, the software has gained acceptance in restaurant business which does not means that the performance of restaurant improve over years as a result of using accounting software. This study focus on examine the relationships between accounting software and financial performance of registered restaurant in Kano, Nigeria. The purposive sampling technique is utilised to arrive at the sample size in order to achieve the aims of the research. The study consists of dependent variable measure as profit after tax and independent variable measure by existence of accounting software. The Authors also made use of close ended questionnaire as a primary source of data. The study revealed significant positive relationship between independent and dependent variable. In view of the above finding, the study recommended that, the authority concern should ensure all restaurants must use accounting software in their domain, and create more awareness to members about the benefits of utilisation of accounting software.

Keywords: Accounting software, financial performance, Restaurant business



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1. Introduction

It is pertinent to mention that, corporate performance has become prevalent of the issue of accounting software and become a global interest specifically as the result of financial scandal in developing economy. Therefore, regulatory agencies, corporate managers, professional bodies and academicians, and other stakeholders are increasing their efforts to set up appropriate control through effective and efficient accounting software in various businesses including restaurant business. Besides, restaurants business can be considered as one of the important sector that lubricates growth and development in an economy and it is among the key players that provide employment to the teeming youth (Cavusoglu, 2019; Maruschak, 2021)

Corporate financial performance is an important requirement for the survival of a company, it is consider as a process by which the limited amount of resources available to an organisation are efficiently and effectively managed in achieving predetermined goals, it is also described as an increase of assets of an owner of the business from the beginning to the end of any accounting period. In this regards, the major goal of owners are to increase their wealth from one level to another better level, and this could only achieved when the business is doing well and keeping proper record through appropriate accounting software. Therefore, this perception hold in the real life because is not fantasy conclusion (Agha, et al., 2024; Ahmad, 2024).

In addition, restaurant business has witnessed different factors which lead to slow pace or distortion of their desired level of growth which include poor record of their daily transactions, issue of integrity and technical knowhow among staff, awareness of using accounting software for preparation of financial statements and decision making among the relevant stakeholders in Nigeria. For instance, according to Association of restaurant owners of Nigeria, Kano branch explained that, significant numbers of restaurants have not utilising accounting software; few have not powerful software as well as substantial owners without knowledge of accounting software in their business. In addition, the authority concern stated that the users of accounting software for their operation are not more than 30% (Adeola, & Ezenwafor, 2016; Abdullahi et al, 2021). Therefore, the way in which accounting software is use need be improved among their members.

Many scholars and professional bodies observed that use of accounting software may enhances firms' performance and deter information lop-sidedness among restaurants' owners and other users of the financial reports (Mashika et al., 2021; Chong & Nizam, 2018; Abdullahi et al, 2021; Gamlath, 2021). As a result, several empirical studies are conducted to assess the relationship between accounting software and financial performance (Adeola, & Ezenwafor, 2016; Wickramsainghe., et al, 2018). However, most of these studies are extensively conducted in developed nations (De Silva, et al., 2025). Albeit, there are many studies in developing nation but concentrate in restaurants and hotels business. Especially in the emerging economy like Nigeria (Agha et al., 2024; Adeola, & Ezenwafor, 2016). Again the results of these studies are found to be inconsistencies and disputing in literature (Gamlath, 2021; Wickramsainghe, et al, 2018; Chong & Nizam, 2018). To the best of the researchers' knowledge, little or no study has looked at the impact of accounting software on financial performance in Kano. Despite the fact that Kano is the centre of commerce and visited by many traders from different countries all over the world. It also helps to address the concern of inadequate and inappropriate software for restaurant business.



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In this paper, the authors investigate the relationship between accounting software and financial performance for a samples of 100 restaurants based in Kano. Using appropriate accounting software can be consider as accounting software for restaurant business and profit after tax is used as a measurement of financial performance. The study proceeds as follows; in the next section, the sample and variables used in prior empirical analysis are presented, the result of the study is presented in section ??, and section ? discuss the summary and conclusion of the study.

2.0 LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of accounting software

Accounting software is a computer program that assists book keepers and accountants in recording and reporting a firm's financial transactions (Boulianne, 2014). The functionality of accounting software differs from product to product. Larger firm may choose to implement a customised solution that integrates a vast amount of data from many different departments. Small firm often choose an off the shelf product. It is also an important resource for modern business. The software allows for detail tracking of financial transactions and near instaneous reporting and analysis. Before accounting software, these role had to be perform manually, the software automates task, reducing the cost of accounting and allowing better financial decision making through timely reporting. Furthermore, it allows for the storing of large amount of data. This means that, no longer need large file rooms to store binders of data, it is also provide ability to easily access accounting information, and therefore assist external groups such as revenue services for the purpose of tax, potential investors for investment decision purpose, financial institution for financial services and regulatory institutions for policy making.

2.1.2 Concept of financial performance

The concept of financial performance is a controversial in accounting and finance discipline due to its multi-dimensional definition. According to Kumari, et al., (2024) explain financial performance as ability to achieve its target objective from its available resource. Kariyawasam (2019) viewed financial performance as, the result of an enterprise assessment or strategy on how well to accomplish its objectives. Financial performance provides a deductive measure on how well an organisation can use assets from business operations to generate income. Agha et al., (2024) defined financial performance as subjective measure of how well a firm can use assets from its primary mode of business and generate incomes. According to some scholars in the field of accounting and finance consider the term as a general measure of the overall financial health of a business (Gamlath, 2021; Chong, 2018). Some studies, on the other hand mentioned that financial performance come from organisational theory and strategy management and describe performance of an entity with the legal status of an enterprise.



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Corporate financial performance is an important aspect to shareholders and other stake holders in any organisation. Share holders are interested of the returns for their investment. An organisation that is performing well can bring better reward to their shareholders and other stake holders, that is firm performance can increase income of its staffs, render good service to their customers and creating goodwill in the environment its operates. In addition, an organisation that has good performance may generate high returns which can lead to create more employment and increase the wealth of company's shareholders.

2.2 Theoretical Framework

2.2.1 Agency Theory (AGT)

The theory underpinning this study is agency theory. This is the theoretical framework used by most researchers for clear understanding of the impact of accounting software and financial performance (Subasinghage., 2012; Keil, 2005). Agency theory reveals the existence of the resources like accounting software for management to identify level of improvement of company's financial position (Essayed & Elbaradan, 2018). Management may manage digital tools to reveal the true financial position and relevant information of a business organization that investors ought to have known. Therefore, their action as an agent of shareholders may provide better monitoring mechanism of management that in turn leads to transparent and quality reporting. Shareholders employ management to oversee the effective performance of the management in order to protect and enhance their value as well as meeting the companies' obligation to its employees and other stakeholders. Therefore, certain competency and experiences of the management are suggested in the literature to be effective in improving the level of financial performance. The study has expected that the accounting software will be linked to the company's financial performance.

2.2.2 Resource Based Theory (RBT)

The RBT emphasizes that organizational performance depends on the possession and effective deployment of valuable, exceptional, unique, and non-substitutable resources (Elsayed & Elbaradan, 2018). Accountant technological competency can be intellectualized as a strategic resource that enhances the effective utilization of accounting software, thereby improving financial reporting quality despite the presence of operational challenges (Subasinghage, 2012). Firms that invest in continuous digital training and skill development are better equipped to transform technological resources into competitive accounting advantages (Akinyemi & Odibo, 2021; Keil, 2005).

Valuable and unique technology is to ensure sustainable and reliable delivery of services and should have appropriate rigour, analytical and innovative skills to prevent waste, fraud and corruption in a corporation. Effective software should be able to create better value for money through the efficient use of resources and ensure positive inputs and outcomes by designing new technology in conjunction with other stakeholders (Elsayed & Elbaradan, 2018; Keil, 2005).



Accountant requires to understanding components of business operations and its back up, such as financial transactions, inventory checking, cost and benefit analysis, employees' schedules, the standard accounting software must address majority of these, if not all of the component to help owners and other stake holders to track financial aspects of the business without having transfer to or from different software (Elikai, et al., 2007; Maruschak., 2021). These are some of accounting software as prescribed by Deshmukh and Romine (2002); Net suite ERP is essentially a customer relationship management (CRM) solution but the platform can be used for sales and marketing automation as well as order management and customer support. Restaurant specific all in one. Paychex is provides payroll solutions to enterprise. Gusto is an all in one of accounting software that allows to more advanced payroll task and help business see exactly where their money goes. Quick book is an accounting solution for small business that managed complex issues. Airbase is an essentially incorporate multiple technical solutions to manage business cards. Tipalti Approve is a cloud payment automation and management software that help for global mass payment. Fresh Books is use to collect payments easily and automate the recurring billing process. Sage 50 cloud. Sage Business cloud accounting. Etc.

2.3 Empirical Review

2.3.1 Empirical studies between accounting software and financial performance

Nowadays, there is a lot of criticism by many financial analysts and researchers on Businesses for not utilising accounting software; and which by extension may lower their ability to monitor performance well (Chong & Nizam, 2018; Nwekwo., 2024). The levels of utilisation of appropriate software in their activities have influence performance. Businesses that normally use appropriate accounting software are more likely to solve their problems of the company effectively (Kariyawasam, 2019). Di Silva et al., (2025) suggest that frequent use of accounting software is an important resource in improving the effectiveness of the performance. Financial controller that use software frequently are more likely to discharge their duties in accordance with accounting standard and shareholders' interest in order to address issues of conflict of interest and monitoring activities of management in an organisation. Olufemi (2021) examines the impact of accounting software in computerizing business environment and financial reporting quality of the Nigerian listed firms. Financial reporting quality is represented with the qualitative characteristics of financial statement. Data for the study were obtained from respondents.



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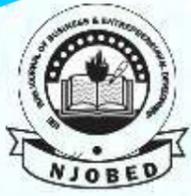
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Utami and Yulianto (2019) investigated significant influence of information technology on the use of modern accounting software. The result suggests that information technology is found to have a positive association with modern accounting software. Authors concluded by saying perhaps the out of fashion software in restaurant businesses and hotels lack sophisticated device and power to influence management from improving business performance. Thottoti (2021) examine the effect of knowledge and use of accounting software on performance. The population used in this study comprises SME in Oman. Purposive sampling method was used to choose the target interviewees required for the survey (semi-structured interview). This method has been applied by selected accountants who work in SMEs in Oman. Based on practical experience and basic knowledge in the field of accounting, a total of six members are selected as the sample size for the study. The findings revealed that the knowledge of accounting software has a significant and positive effect on performance. Maruschak (2021) also found a positive association between accounting software in modern business and performance. It suggests that using modern software to the hotel and restaurant business may improve in monitoring firms' management activities.

Gamlath (2021), analyse accounting software characteristics and business performance in Sri Lanka SME, Primary data were employed and collected through a questionnaire. Convenient sampling method was used to select 150 SMEs who used the Accounting Software. The overall research findings of the study indicated that the characteristics of accounting software and business performance were high level in selected SMEs. Also, the study indicates that there is a positive significant relationship between characteristics of accounting software and business performance.

Nwankwo et al., (2025) examine the effect of accounting software and financial reporting quality in improving business performance in Nigeria. The study surveyed a sample of 100 respondents in southeast, Nigeria. The data were obtained through the use of questionnaire and analysed using Chi square. The result showed that accounting software brings a greater breadth of experience to the financial controllers and are in a better position to monitor and control financial activities in using modern technology in Nigeria.

In the contemporary research one of the major mechanisms that influence firm performance is the modern technology specifically software in accounting arena (Valerie et al., 2019). Hamad et al. (2021) argued that founding software in businesses provide a special corporate system that curtail agency cost and improve firm performance. Nwekwo., et al. (2024) found that firms with appropriate accounting software are significantly less likely to fail. In contrast, Kariyawasam (2019); Kvasha (2016); and Wickramsainghe (2017) argue that a business with accountant with accurate knowledge of accounting software to keep record can be a monitoring mechanism that may result to the higher performance.



3.1 Research Methodology

This section comprises of research design, methods of data collection and analysis, instruments of data analysis, sampling and sample size and research model specification.

It is correctional research design is employed in order to achieve the objectives of the study. The study makes use of primary data across registered restaurants in Kano state, Nigeria. The data which is obtained through questionnaire with five-likert scale in nature and it's more appropriate for the current study. It's also adopts purposive sampling technique for only restaurants that are using accounting software or any accountant or managers with knowledge of accounting software are selected. Thus, **one hundred and out of two thousand and one hundred restaurants** are considered as a sample size. In addition, both descriptive and inferential statistic are employ, therefore, descriptive statistic provides frequencies and average of relevant variables to describe the data set. While, the inferential consider to explain the influence of accounting software on financial performance.

Table-1. Variables and Measurement

Variable	Acronyms	Measurement	References
Financial Performance	FIPM	Profit after tax	
Restaurant specific all in one	RSIO	Existence of software (1) otherwise (0)	Mashika et al., (2021)
Sage 50 cloud	SAGE	Existence of software (1) otherwise (0)	Chong & Nizam, (2018).
Quick Book	QUIB	Existence of software (1) otherwise (0)	Gamlath., (2021); Maruschak (2021)
Air base	AIRB	Existence of software (1) otherwise (0)	Olufemi (2021); Wickramsainghe et al., (2017)
Fresh book	FREB	Existence of software (1) otherwise (0)	Chong & Nizam, (2018).

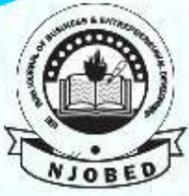
3.1.1 Model specification

The model specify on empirical framework using accounting software as an independent variable and financial performance as dependent variable. The financial performance posited to be function of accounting software as independent variable having these variables, the equation presented as follows

$$FIPM = \beta_0 + \beta_1 RSIO_{it} + \beta_2 SAGE_{it} + \beta_3 QUIB_{it} + \beta_4 AIRB_{it} + \beta_5 TIPA_{it} + \beta_6 FREB_{it} + \mu_{it} \dots \dots \dots (Equa1)$$

Where:

- | | |
|----------------------------|--|
| FIPM = Financial statement | FREB = Board Size |
| SAGE = SAGE 50 Cloud | RSIO = Reatuarant specific all in one |
| QUIB = Quick book | it = indictor for i = company, t =Time |
| AIRB = Air base | μ = Error term |
| TIPA = Tipati | |



3.1.2 Heteroscedasticity Test

Heteroscedasticity is a problem that occurs when the variance of error terms is not constant over the sample observations (Gujarati, 2013). The implication is that there is a tendency to make the coefficient estimate to be underestimated, and in some cases, it portrays insignificant variables as significant in the regression analysis (Hair *et al.*, 2006). The rule of thumb is to accept the H_0 if the p-value is greater than 0.05, indicating that the variance is homoscedastic.

Table 4.12
Goldfeld-Quandt Test for Heteroscedasticity

Variable	chi2(1)	Prob> chi2
FIPM	0.86	0.3524

This study used STATA package 14 to perform heteroscedasticity test using Goldfeld-Quandt Test to know the behaviours of variance. The result shows insignificant p-values of 0.3524. This result approves that the model as shown in Table 4.12, hence, heteroscedasticity is not an issue in this study.

4.1 Results and Discussion

4.1.1 Descriptive Statistics

Descriptive Statistics Results on Table 1 shows the results of the accounting software and financial performance in general statistical measurements such as minimum, maximum, mean, standard deviation and variance respectively.

Table 1. Descriptive Statistics Result;

VARIABLE	OBSR	MIN	MAX	MEAN	STD DEV	VARIANCE
FIPM	2484	-4.0500	1.1300	0.0395	0.1732	-4.6500
ACSW	2484	0.0200	1.6200	0.3567	0.1780	0.0200
SAGE	2484	-0.6200	0.9800	0.6433	0.1780	-0.6200
QUIB	2484	0.0800	61.3100	3.0386	3.7530	0.0800
AIRB	2484	0.0000	0.0500	0.0082	0.0065	0.0000
TIPA	2484	3.2000	10.6500	5.9060	0.2317	3.2000
FREB	2484	-0.2903	0.3755	0.3360	0.1428	-0.2903

The above table has revealed that 2484 observation of data using registered restaurants to represent data related to variables in the study. The dependent variable which is financial performance has a minimum value of -4.6500 and the maximum value of 1.1300. This signified the range which restaurant manages their performance. The mean value of financial performance is 0.0395 and its standard is 0.1732.



NJOBED

June 2025 Edition

The average ACSW is 0.3567. This indicates that the average users of the software in restaurant business in Kano, Nigeria are 0.3567 with a standard deviation of 0.1780. Henceforth, the average users is below the minimum expectation of association of hotel and restaurant of Nigeria which recommended firms should have a minimum simple software to be used for keeping records (AHRN, 2021). Meanwhile, the minimum of members in the study sample is 0.3567 members while the maximum number of the members is 0.1780 members. This result shows that very few of the members have accounting software.

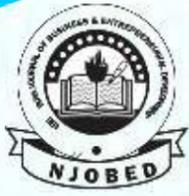
4.1.2 Correlation Matrix between Variables;

The Pearson correlation results in table 3 shows that the results of FIPM correlation with all the variables and all p-value correlations are relatively low. This shows that there is no multicollinearity problem as stated by Gujarati (2004) that the value of the correlation greater than 0.80 means that there is a multicollinearity problem among the variables.

Table 3. Correlation analysis of Sustainable Growth Rate and Sales Growth with all variables

	FIPM	ACSW	SAGE	QUIB	AIRB	TIPA	FREB
FIPM	1						
ACSW	-0.071**	1					
SAGE	0.071**	-0.000**	1				
QUIB	0.012	-0.524**	0.524**	1			
AIRB	0.062**	0.166**	-0.166**	-0.168**	1		
TIPA	0.070**	0.144**	-0.145**	-0.041*	-0.157	1	
FREB	0.038	0.023	-0.023	-0.019	0.029	-0.066**	1

The correlation result of firm's financial performance is associated with three variables out of six where financial performance (FIPM) has positively significant correlated at 1 percent, and negatively significant correlated at 1 percent level for ACSW. While, QUIB and FREB are not significantly correlated with FIPM. Hence, based on the results, these results comply with other researchers (Ahga, et al., 2024; Chong & Nizam, 2018) found that there is a positive relationship between accounting software and business performance.



Regression Results

Table 4 shows that the relationship between accounting software (ACSW, QUIB, and AIRB) as independence variables with a business performance as dependent variable have a significant positive relationship at the 1% level of significant (as the p-value < 0.01). However, SAGE and TIPA have insignificant relationships with financial performance (as the p value > 0.01, 0.05 and 0.10).

Table 4. Regression of Financial Performance

Variables	Standardized Coefficients Beta ()	t-value	p-value
Constant		-5.107	0.000
ACSW	0.115	4.879	0.000***
SAGE	-0.030	-1.274	0.203
QUIB	0.092	4.482	0.000***
AIRB	0.098	4.788	0.000***
TIPA	-0.033	-1.638	0.102
R.Square	0.147		
Adjusted R.Square	0.022		
Significant level	0.000		

***, **, * indicate significance at the 1%, 5%, and 10% levels respectively

The determination coefficient (R. Square) demonstrates that only 0.22% of the relationship between the variance of financial performance and the variance of independent variables (Chong & Nizam, 2018). In this case, F-test statistics, the null hypothesis for all regression coefficients less than 1% may be rejected at the 1% level of significant. With this estimated regression is efficient and appropriate for a financial performance prediction. These results comply with Gamlath(2021), Olufemiet al. (2021)found that utilization of accounting software enhance the level of performance to significant point.

8.1. Conclusions and Recommendation

This study add to the existing literature on accounting software and performance with restaurant business such as Valerie et al., (2019); Gamlath (2021); Chong and Nizam, (2018); (2012); Wickramsainghe et al, (2017).. In summary, the findings demonstrate succinctly that the selected variables indicators under study significantly affect the business performance of restaurant business in Nigeria. It is notwithstanding the relationships established between the accounting software indicators and business performance of restaurant, the measure of relationship varies among the different measures (indicators) of accounting software; namely, SAGE 50 Cloud, Restaurant specific all in one, Quick book, Air base and Tipati. However, this study report that there is significant relationship between the various accounting software indicators and performance except for a relationship from QUIB to FIPM and from FR to FIPM respectively. Based on the foregoing, the study conclude that there is a significant relationship between the various accounting software indicators employed in this study for restaurant business and their financial performance in Kano state, Nigeria.

Because of the limitation of the study, the researchers recommend next of future research to input variables of artificial intelligence such as machine learning. And also the second suggestions of the future research is needed to examine the influence of accounting software on performance by using others industries and sectors to enhance our restaurant business in Nigeria.



NJOBED

June 2025 Edition

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NJOBED

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