

**THE ECONOMIC IMPACT OF PROCUREMENT PRACTICE ON
ACADEMIC PERFORMANCE OF UNIVERSITY OF BENIN AND
IGBINADION UNIVERSITY IN EDO STATE**

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UNIVERSITY OF BENIN
BENIN CITY.**

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**A PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT
OF PROCUREMENT MANAGEMENT, FACULTY OF SUSTAINABLE
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REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE (M.Sc)
IN PROCUREMENT MANAGEMENT, UNIVERSITY OF BENIN,
BENIN CITY**

OCTOBER, 2025.

DECLARATION

I **FRED UWAIFIOKUN** do hereby declare that this project is entirely my work and composition.

The work embodied in this project has not been submitted by another candidate for any degree and is not currently being submitted for any other degree. All references made to the works of others have been duly acknowledged.

Fred Uwaifiokun

Date

CERTIFICATION

We, the undersigned certify that this research work was submitted by **FRED UWAIFIOKUN** and it is hereby approved for the partial fulfilment of the requirement for the award of Master Degree (M.Sc) in Procurement Management, University of Benin, Benin City.

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DEDICATION

This work is dedicated to Almighty God for His Greatness, Faithfulness and Mercy towards my life. This work is also dedicated to my lovely wife (Mrs. Mercy Uwaifiokun) and my wonderful children; Bethel Uwaifiokun, Ebenezer Uwaifiokun, Iwinosa Uwaifiokun and Victory Uwaifiokun for their support and prayers.

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My sincere gratitude goes to God Almighty who has been there all through the course of the programme and even before.

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I will not fail to mention Dr. (Mrs) Uduak, Professor Osunde and Dr. Osifo for their advice and concern, May God Almighty bless you and your family in Jesus name, Amen.

My appreciation goes to my darling wife Mrs. Mercy Uwaifiokun and my lovely Children for their love and total support towards the successful completion of this programme.

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ABSTRACT

The study evaluates the economic impact of procurement practice on academic performance of University of Benin and Igbinedion University in Edo state. Specifically, the survey assessed the effect of procurement planning, supply evaluation, contract management, procurement staff competency, and inventory management on academic performance. The sample size of 120 respondents- 60 respondents from each university, were purposively chosen from the population comprising all staff members directly engaged in procurement activities at the University of Benin and Igbinedion University. The data employed the primary method of data collection with the aid of structured questionnaire. Descriptive statistics was carried out on the data and the analyse was conducted using linear regression technique. The findings from the analysis demonstrates that procurement planning has a positive and statistically significant effect on university performance, supplier evaluation shows a negative and significant relationship with university performance, contract management displays a negative and significant coefficient while staff competency has a significant positive effect on university performance, and lastly inventory management though positive, was statistically insignificant. The findings indicate that while procurement practices are critical to institutional effectiveness, their impact is inconsistent and often undermined by systemic weaknesses. It is recommended that Universities should adopt participatory planning frameworks that involve end-users, align procurement needs with budget realities, and minimize bureaucratic delays, and Regular training, professional certification, and regulatory awareness programs should be instituted to improve the competence of procurement staff.

CHAPTER ONE

INTRODUCTION

1.0 Preamble

The education sector plays a vital role in national development, particularly in emerging economies like Nigeria, where universities serve as engines of human capital formation, innovation, and socio-economic progress. In recent years, increasing attention has been directed toward how institutional processes such as procurement affect the performance and sustainability of higher education institutions. Procurement, once viewed as an administrative function, is now recognized as a strategic tool for achieving institutional goals, optimizing resource use, and ensuring financial accountability. Within universities, procurement influences critical operations ranging from infrastructure development and instructional material acquisition to the efficient allocation of financial and human resources.

In Nigeria, universities face mounting pressures to deliver quality education despite financial constraints, rising student enrolment, and regulatory expectations. Efficient procurement practices have become essential for managing scarce resources, improving service delivery, and enhancing institutional performance. The strategic alignment of procurement activities with institutional priorities can result in better cost control, reduced delays in service provision, and improved operational outcomes. Conversely, poor procurement practices often lead to project delays, budget overruns, stock shortages, and compromised educational services, all of which erode public trust and institutional effectiveness.

This study focuses on understanding how procurement practices affect the performance of two universities in Edo State: University of Benin and Igbinedion University. These institutions represent the public and private university systems in Nigeria and offer a valuable basis for evaluating the extent to which procurement planning, supplier evaluation, contract management, staff competency, and inventory management contribute to institutional performance. By exploring this relationship, the study aims to provide evidence-based insights that can inform procurement reforms, policy development, and institutional strategy within the Nigerian higher education system. As global trends increasingly emphasize transparency, accountability, and efficiency in public and private sector management, procurement has become a priority area for reform in Nigeria's tertiary education landscape. This research is therefore timely and significant. It seeks to contribute to scholarly discourse and practical implementation by analysing the economic impact of procurement practices on university performance, with the broader goal of improving institutional outcomes and supporting national educational development.

1.1 Statement of the Problem

Nigeria's higher education institutions, particularly in both public and private sectors, continue to face procurement-related challenges that significantly hinder their economic performance and operational effectiveness. These issues include inadequate planning, inconsistent supplier evaluation, weak contract administration, limited staff capacity, and ineffective inventory systems. Although the Bureau of Public Procurement and the National Universities Commission have introduced reforms to improve procurement systems across tertiary institutions, universities such as the

University of Benin and Igbinedion University still experience delays, resource shortages, budget overruns, and project inefficiencies (Komolafe, 2022; Obasa & Gado, 2022). These persistent challenges threaten institutional accountability, service delivery, and financial sustainability.

While a number of studies have examined procurement practices within public sector organizations and corporate environments, relatively few have focused on universities in Nigeria. Even fewer studies have attempted to assess how multiple procurement functions interact to influence university performance, especially within a comparative context that considers both public and private institutions. Obasa and Gado (2022) identified weak procurement planning and inadequate supplier assessments as recurring barriers in public systems, but their study did not extend its scope to performance metrics in higher education. Similarly, Unegbu et al. (2023) reported gaps in supplier screening and contract execution within academic institutions but emphasized the need for broader and more integrated analysis.

Emerging research has acknowledged that procurement systems can directly influence institutional outcomes such as budget performance, service quality, and administrative efficiency. However, existing findings tend to isolate variables, overlooking how planning, supplier evaluation, contract management, staff competency, and inventory practices collectively impact performance. Oyetade et al. (2024) and Akeke et al. (2025) emphasized that fragmented procurement systems contribute to financial leakages and unmet academic goals in universities. Still, few empirical studies have explored these issues with specific reference to the Nigerian university context.

Furthermore, the differences in procurement governance between public and private universities raise important research questions. Public universities often struggle with centralized, bureaucratic systems that delay procurement approvals and service delivery. In contrast, private universities may be more flexible but often lack standard frameworks and skilled procurement personnel. Both types of institutions face challenges in aligning procurement processes with institutional goals, yet the extent to which these processes influence performance remains under-investigated.

The core problem, therefore, lies in the lack of comprehensive, evidence-based research that evaluates how the core dimensions of procurement practice affect university performance in Nigeria. This knowledge gap undermines the ability of university administrators, policymakers, and funding partners to adopt informed strategies for procurement reform and performance improvement. The absence of this analysis restricts not only institutional growth but also national development in the education sector, where effective resource utilization is essential.

To address this problem, the present study focuses on two institutions in Edo State: University of Benin and Igbinedion University. It aims to investigate how procurement planning, supplier evaluation, contract management, staff competency, and inventory management relate to the performance of these universities. The research also explores whether effective procurement practices can serve as levers for improving cost-efficiency, resource allocation, and service delivery across institutional types. In light of this problem, the following research questions are proposed to guide the study. These questions reflect the need to examine whether and how procurement

dimensions shape university performance outcomes, and they emerge directly from the issues identified in this problem statement.

1.2 Research Questions

In line with the objectives of this study, the following research questions are developed:

1. Does procurement planning influence the academic performance of tertiary institutions (University of Benin and Igbinedion University)?
2. Does supplier evaluation affect the academic performance of tertiary institutions (University of Benin and Igbinedion University)?
3. Does contract management impact the academic performance of tertiary institutions (University of Benin and Igbinedion University)?
4. Does procurement staff competency contribute to the academic performance of tertiary institutions (University of Benin and Igbinedion University)?
5. Does inventory management relate to the academic performance of tertiary institutions (University of Benin and Igbinedion University)?

1.3 Research Objectives

The primary objective of this study is to examine the economic impact of procurement practice on the academic performance of tertiary institutions in Edo State. The specific objectives are to:

1. Examine the influence of procurement planning on the academic performance of tertiary institutions (University of Benin and Igbinedion University).

2. Assess the effect of supplier evaluation on the academic performance of tertiary institutions (University of Benin and Igbinedion University).
3. Investigate the impact of contract management on the academic performance of tertiary institutions (University of Benin and Igbinedion University).
4. Determine the role of procurement staff competency in enhancing the academic performance of tertiary institutions (University of Benin and Igbinedion University).
5. Evaluate the relationship between inventory management and the academic performance of tertiary institutions (University of Benin and Igbinedion University).

1.4 Hypotheses of the Study

The following null hypotheses are formulated based on the research objectives:

- H₀₁:** There is no significant relationship between procurement planning and the academic performance of tertiary institutions (University of Benin and Igbinedion University).
- H₀₂:** There is no significant relationship between supplier evaluation and the academic performance of tertiary institutions (University of Benin and Igbinedion University).
- H₀₃:** There is no significant relationship between contract management and the academic performance of tertiary institutions (University of Benin and Igbinedion University).

H₀₄: There is no significant relationship between procurement staff competency and the academic performance of tertiary institutions (University of Benin and Igbinedion University).

H₀₅: There is no significant relationship between inventory management and the academic performance of University of tertiary institutions (University of Benin and Igbinedion University).

1.5 Scope and Limitation of the Study

This study investigates the economic impact of procurement practice on the academic performance of two universities in Edo State: University of Benin and Igbinedion University. These institutions were selected to reflect both public and private higher education systems in Nigeria. The study focuses specifically on five critical dimensions of procurement practice: procurement planning, supplier evaluation, contract management, staff competency, and inventory management. University performance is considered in terms of Research output such as publications and completed projects. The study population includes procurement officers, administrative staff, bursary and finance personnel, and faculty members with relevant procurement responsibilities. Data was collected using a structured questionnaire based on a five-point Likert scale, enabling the researcher to obtain measurable responses. The period for the analysis spans 2020 to 2024 academic and financial year, providing a current and relevant perspective on procurement outcomes in both institutions.

1.6 Significance of the Study

This study holds significant importance for various stakeholders within the Nigerian higher education sector and beyond. It seeks to provide empirical evidence on the relationship between procurement practices and university performance, focusing on two distinct institutional types: University of Benin (a public university) and Igbinedion University (a private university). As procurement continues to be a critical function in institutional administration, understanding how procurement planning, supplier evaluation, contract management, staff competency, and inventory systems affect performance can serve as a blueprint for sustainable resource management in universities. For university administrators, this study offers a valuable tool for institutional diagnosis. By identifying how procurement practices directly or indirectly influence performance outcomes, such as cost-effectiveness, resource allocation, and service delivery, administrators can adopt more strategic and evidence-based procurement frameworks. This has practical implications for budget control, audit accountability, and value-for-money in procurement cycles, all of which are essential for institutional growth and public trust.

Policymakers and regulatory bodies, such as the National Universities Commission (NUC) and the Bureau of Public Procurement (BPP), will also benefit from the findings of this study. The research offers insight into the actual effects of procurement practices within the university system, thereby informing policies aimed at standardizing procurement procedures, improving compliance, and enhancing institutional performance across the tertiary education sector. Academically, the study contributes to the relatively limited body of literature on procurement practices in

Nigerian universities. While many existing studies focus on procurement in the public sector or corporate organizations, there remains a gap in understanding how these practices function within tertiary education institutions, particularly in the context of both public and private universities. By bridging this gap, the research enhances the theoretical and empirical foundations upon which future studies can be built.

For procurement professionals and operational staff within universities, the study provides evidence-based recommendations that can guide professional development, process improvements, and performance measurement. It identifies practical challenges and opportunities within the procurement process, offering strategies for improving institutional efficiency and financial accountability. Furthermore, the study is significant for development partners, donor agencies, and international education bodies that support tertiary education reform in Nigeria. Insights from this research can be applied to donor-funded projects, institutional audits, and program evaluations, particularly in ensuring that funds allocated to universities are managed through transparent and efficient procurement systems.

Lastly, the research offers a reliable empirical foundation for future comparative studies, either between institutions, regions, or sectors. It lays the groundwork for more nuanced investigations into how procurement systems can be optimized to improve higher education outcomes in developing countries.

CHAPTER TWO

BACKGROUND TO THE STUDY

2.0 Introduction

Procurement practices are salient in the functioning and sustainability of institutions across sectors, particularly in educational systems where the acquisition and management of resources influence not only academic delivery but also financial performance. In many developing countries, including Nigeria, procurement processes in public and private universities are often constrained by poor planning, weak evaluation systems, and inefficiencies in contract administration. These challenges undermine institutional effectiveness and strain already limited budgets. While procurement is often viewed as a technical function, scholars increasingly emphasize its strategic relevance to performance, especially in resource-dependent sectors such as education (Salami, Babalola, & Ogunjimi, 2024).

Globally, universities are expected to maintain high academic standards, offer competitive services, and demonstrate accountability in the management of public or private funds. These responsibilities require efficient procurement practices that ensure the timely and cost-effective acquisition of infrastructure, instructional materials, and operational supplies. Barongo and Moturi (2025) argue that procurement, when managed strategically, contributes to improved service delivery, financial discipline, and institutional credibility. However, in the Nigerian higher education context, procurement is often characterized by irregular supplier selection, delayed contracts, and poor inventory control, all of which hinder performance (Komolafe, 2022). Institutional procurement in Nigeria operates within a complex

legal and administrative framework governed primarily by guidelines from the Bureau of Public Procurement (BPP) and oversight from the National Universities Commission (NUC). Despite these established frameworks intended to enhance transparency and efficiency, practical adherence often falls short due to bureaucratic complexities, limited enforcement capabilities, and entrenched cultural practices favouring informal procurement dealings. Consequently, procurement processes in universities frequently experience delays, resulting in inflated costs and undermined institutional credibility

The University of Benin and Igbinedion University, representing public and private universities respectively, provide a practical context for evaluating how procurement practices affect university performance. Procurement planning, understood as the process of forecasting needs, preparing budgets, and aligning procurement goals with institutional strategy, is fundamental. Without well-structured planning systems, universities are more likely to face resource mismatches, project delays, and financial wastage (Obasa & Gado, 2022). In institutions where planning is reactive rather than strategic, procurement often fails to deliver value for money.

Another key consideration is supplier evaluation. Institutions that adopt clear, data-driven criteria for selecting vendors are more likely to achieve better outcomes in terms of cost, quality, and service reliability. Conversely, poor evaluation frameworks result in the engagement of suppliers that deliver substandard or overpriced goods and services. Unegbu et al. (2023) found that inadequate supplier screening in Nigerian tertiary institutions led to project overruns and quality defects. This aligns with

broader concerns about procurement integrity and transparency in public procurement processes.

Contract management is another critical area. A well-structured procurement contract should not only specify deliverables and timelines but also establish mechanisms for monitoring compliance and handling disputes. Studies by Obasa and Gado (2022) revealed that poor contract oversight contributed to the failure of major education-sector projects in Nigeria. In the university setting, ineffective contract management can delay campus construction projects, disrupt teaching, or inflate costs due to change orders and penalties.

Institutional capacity also depends on the quality of personnel managing procurement activities. Staff competency, particularly knowledge of procurement law, ethical standards, and financial controls, influences the integrity and efficiency of the procurement process. Barongo and Moturi (2025) reported a strong link between staff training and performance in educational procurement systems. Where procurement officers lack adequate training, compliance with procurement laws and standards tends to be low, increasing the risk of fraud and waste.

Inventory management is also central to procurement effectiveness. Proper inventory systems reduce the risk of stockouts, over-purchasing, or loss of goods through theft and obsolescence. A recent study by Oyetade et al. (2024) in Nigerian institutions highlighted that inadequate inventory tracking was one of the leading causes of cost escalation and service delays. In a university environment, poor inventory systems can lead to the unavailability of laboratory materials, teaching aids, or maintenance equipment when needed most.

While existing literature has explored procurement in the public sector and among corporate organizations, very few studies have focused on how procurement practices impact university performance in Nigeria. Komolafe (2022) observed that the education sector is often omitted in procurement research despite its heavy reliance on externally sourced resources. Moreover, studies that do exist often examine isolated variables without a comprehensive view of how multiple procurement functions interact to influence performance outcomes such as cost-efficiency, resource utilization, and service delivery.

The selection of University of Benin and Igbinedion University provides a comparative framework that offers insight into both public and private institutional experiences. This is especially relevant in a policy environment where procurement reforms have been initiated but implementation remains inconsistent. The Bureau of Public Procurement and the National Universities Commission have issued guidelines for enhancing transparency and efficiency, yet universities continue to face procurement bottlenecks that affect their operational capacity and economic performance.

This study is timely and policy-relevant, particularly in an era of increasing demand for accountability, cost control, and institutional competitiveness. It responds to gaps in both empirical evidence and institutional practice by examining how key dimensions of procurement, including planning, supplier evaluation, contract administration, staff capacity, and inventory systems, relate to university performance. The goal is not only to measure these relationships but also to provide actionable

insights for institutional leaders, policymakers, and development partners interested in strengthening procurement systems in Nigeria's tertiary education sector.

By adopting a structured, data-driven approach, this study aims to inform more efficient and transparent procurement strategies that can drive improved institutional performance. It provides a foundation for further inquiry into the institutional economics of procurement and offers practical guidance for enhancing accountability and service delivery in Nigerian universities.

2.1 Review of Study Variables

2.1.1 Procurement Planning and academic Performance in Public Universities (University of Benin)

Procurement planning is a vital function in public universities, directly influencing their operational efficiency, academic delivery, and economic sustainability. In public universities such as the University of Benin, procurement planning involves systematically forecasting institutional needs, allocating budgets, establishing timelines, and aligning procurement activities with statutory and strategic objectives. Effective planning helps ensure timely acquisition of goods and services, thereby supporting smooth academic operations and maintaining infrastructural development (Ogunsanmi & Oke, 2023).

Public procurement is a critical lever through which universities translate budgeted resources into learning inputs, faculty hiring, laboratory equipment, digital infrastructure, textbooks, and facility maintenance. In Nigeria, reforms since the Public Procurement Act 2007 and subsequent Bureau of Public Procurement (BPP) guidelines have sought to improve transparency, competition, and value for money

across ministries, departments, and agencies, including tertiary institutions. Strengthening procurement capacity through standardized bidding documents, cadre professionalization, and continuous training remains central to closing execution gaps that often delay or distort service delivery to campuses (Brookings, 2024). Recent scholarship underscores that governance quality within procurement, planning, competitive tendering, supplier evaluation, and contract management predicts organizational performance in higher education. Evidence syntheses and working papers on universities highlight how aligning internal governance mechanisms with procurement objectives enhances efficiency and accountability, ultimately supporting institutional outcomes (Adeleke & Nwosu, 2025; Adeleke & Nwosu, 2025). Studies within Nigeria's tertiary sector similarly report significant links between procurement practices and institutional performance, suggesting that rigorous planning and market engagement mitigate delays and cost overruns that would otherwise constrain teaching and research (Owei & Okon, 2025; Eze, 2024).

In the education domain more broadly, procurement efficiency affects the speed and quality of infrastructure delivery classrooms, ICT labs, and utilities which are foundational to student learning and research productivity (Maseko & Visser, 2024). When procurement cycles are protracted or poorly coordinated, universities face equipment downtime, stock-outs of consumables, and deferred maintenance, which can depress GPA trends, graduation and retention rates, research output, and accreditation scores key proxies of academic performance. Conversely, strategic sourcing, supplier relationship management, and technology-enabled supply chain integration have been shown to improve "product quality" in universities, i.e., the

reliability and adequacy of academic inputs and services (Ekanem et al., 2025). For the University of Benin (UNIBEN) and Igbinedion University in Edo State, procurement intersects daily with estates/works operations, laboratory upkeep, and program delivery domains that directly shape learning environments and research activity. Within Nigeria's current fiscal pressures and directive timelines for concluding annual procurement, execution discipline and capacity was likely mediate how quickly institutions convert allocations into academic outcomes (VON, 2025). Accordingly, examining the economic impact of procurement practice on academic performance in these two universities is both policy-relevant and timely.

2.1.2 Procurement Planning and academic Performance in Private Universities (Igbinedion University)

Procurement planning is equally critical in private universities, although the operational context and governance frameworks differ significantly from those of public institutions. In private universities like Igbinedion University, procurement planning involves systematic assessment of resource needs, budget forecasting, timeline setting, and alignment with institutional strategic objectives. The main difference lies in the relatively higher degree of operational flexibility and autonomy, which can allow for more agile decision-making and implementation (Chinedu & Lawal, 2023).

Unlike public universities that often operate under rigid regulatory controls, private universities enjoy greater freedom to design procurement systems tailored to their unique organizational cultures and growth strategies. However, this flexibility can sometimes lead to inconsistencies in planning standards and documentation practices.

Eze and Ogundipe (2021) emphasized that while private universities may be quicker in decision-making, they often lack formalized procurement policies and adequate checks and balances, which increases the risk of financial inefficiency and resource misallocation.

Procurement planning in private universities like Igbinedion University plays a pivotal role in sustaining competitive academic service delivery and maintaining institutional reputation. A study by Gamage and Wickramasinghe (2023) revealed that private universities with comprehensive procurement plans were more likely to achieve timely completion of infrastructural projects and ensure continuous supply of critical academic resources. This proactive approach contributes to student satisfaction and supports high-quality learning environments, which are vital for attracting and retaining students in a competitive education market.

Moreover, the integration of procurement planning into broader strategic management is essential for private universities aiming to achieve long-term financial sustainability. Adepoju et al. (2023) reported that private universities adopting integrated procurement and budgeting frameworks exhibited better cost control and resource optimization. Such integration allows institutions to negotiate favourable supplier contracts, minimize emergency procurement, and align resource acquisition with enrolment projections and infrastructural expansion plans.

Digital transformation is also reshaping procurement planning in private universities. Akintola et al. (2024) found that institutions utilizing advanced procurement management software and data analytics tools achieved higher transparency, reduced procurement cycle times, and improved expenditure monitoring. In Igbinedion

University, gradual adoption of e-procurement systems has enhanced procurement efficiency and accountability, although challenges such as limited ICT infrastructure and digital skill gaps among staff persist.

Stakeholder involvement in procurement planning is another critical factor influencing institutional performance in private universities. Ayeni and Nwankwo (2023) highlighted that involving academic departments, administrative units, and student representatives in procurement decision-making leads to more accurate needs assessments and stronger alignment with educational objectives. In the case of Igbinedion University, participatory planning helps ensure that procured materials and services meet specific departmental needs and support core academic functions.

However, despite these advantages, private universities face unique challenges in procurement planning. Financial constraints, reliance on tuition fees, and fluctuating enrolment numbers can limit budget predictability and affect procurement timelines (Barongo & Moturi, 2025). Additionally, the absence of robust internal control systems can expose private universities to procurement fraud and inefficiencies. Obasa and Gado (2022) noted that in some private universities, procurement planning is sometimes compromised by favouritism and informal supplier relationships, leading to inflated costs and substandard service delivery.

Capacity building for procurement staff remains a significant need in private universities. Adegbile and Daramola (2023) emphasized that continuous professional development, especially in procurement law, ethical standards, and strategic sourcing, is critical to enhancing planning outcomes. Unfortunately, many private universities

underinvest in procurement training, focusing instead on immediate operational needs and revenue generation.

In addition, private universities must adopt adaptive procurement planning strategies to remain resilient in a dynamic educational environment. The COVID-19 pandemic exposed vulnerabilities in procurement systems globally, underscoring the need for contingency planning and supply chain diversification (Akeke et al., 2025). Igbinedion University, for instance, had to adjust procurement schedules and prioritize digital infrastructure investments to support remote learning during the pandemic.

2.1.3 Supplier Evaluation and academic Performance in Public Universities (University of Benin)

Supplier evaluation is a critical component of procurement practice in public universities such as the University of Benin, shaping the reliability, quality, and cost-effectiveness of institutional operations. Supplier evaluation refers to the systematic process of assessing and selecting vendors based on a set of performance indicators, including quality standards, delivery reliability, financial stability, technical competence, and compliance with regulatory requirements (Abiola & Igbokwe, 2022).

In public universities, where procurement processes are often constrained by rigid regulations and public accountability demands, supplier evaluation serves as a safeguard against procurement risks and inefficiencies. A study by Obasa and Gado (2022) highlighted that inadequate supplier assessments in Nigerian public universities contribute to frequent delays, supply chain disruptions, and substandard project outcomes. At the University of Benin, weaknesses in supplier evaluation have

been linked to construction delays and procurement of poor-quality materials, which hinder institutional growth and operational efficiency.

The Bureau of Public Procurement (BPP) mandates thorough supplier vetting to promote transparency and prevent corruption. However, compliance remains inconsistent due to capacity gaps, inadequate data systems, and bureaucratic inertia. According to Edeh and Olanrewaju (2022), many public universities in Nigeria lack robust supplier performance tracking systems, leading to repeated engagement with underperforming vendors and financial inefficiencies.

Technological integration can significantly improve supplier evaluation practices. Digital tools such as e-procurement platforms and supplier scorecards provide real-time performance data, enabling data-driven decision-making and enhancing transparency (Ojo et al., 2023). Despite these benefits, adoption in the University of Benin has been slow, constrained by funding limitations and insufficient digital literacy among procurement staff (Akintola et al., 2024).

Involving end-users and departmental representatives in the evaluation process is essential to ensure that supplier selections align with actual institutional needs. Okeke and Dogo (2020) emphasized that participatory evaluation frameworks in universities increase user satisfaction and reduce disputes over delivered goods and services. Unfortunately, in the University of Benin, centralized decision-making often excludes these stakeholders, resulting in mismatches between procured items and operational requirements.

Another challenge is the lack of regular supplier audits and performance reviews. Oladele and Benson (2022) reported that fewer than 25% of Nigerian public

universities conduct periodic supplier audits, missing opportunities for accountability and continuous improvement. Regular audits help identify non-compliance early, enforce corrective measures, and build stronger, more reliable supplier relationships. Ethical considerations are equally vital. Weak enforcement of ethical standards during supplier selection encourages favouritism, bribery, and conflicts of interest. Ojo and Adewale (2022) argued that embedding ethics training and clear procurement codes of conduct can enhance integrity and trust, critical for sustainable supplier relationships. In summary, effective supplier evaluation in public universities like the University of Benin is indispensable for achieving operational efficiency, cost savings, and service quality. Strengthening this practice requires adopting digital evaluation tools, involving stakeholders, conducting regular audits, and reinforcing ethical standards. By prioritizing these strategies, public universities can mitigate procurement risks, improve performance outcomes, and enhance institutional credibility.

2.1.4 Supplier Evaluation and Performance in Private Universities (Igbinedion University)

Supplier evaluation in private universities such as Igbinedion University is a pivotal aspect of procurement, directly affecting service delivery quality, cost efficiency, and institutional competitiveness. Unlike public universities, private institutions enjoy greater autonomy and flexibility in designing and implementing supplier evaluation frameworks, allowing them to respond more dynamically to changing market and operational needs (Chinedu & Lawal, 2023).

In private universities, supplier evaluation often involves multi-dimensional criteria, including price competitiveness, technical capacity, innovation capability, compliance

history, and responsiveness to institutional needs (Abiola & Igbokwe, 2022). This holistic approach helps ensure that selected suppliers align with the university's strategic objectives and contribute to delivering superior academic and operational services.

At Igbinedion University, the focus on rapid infrastructure development and service excellence necessitates stringent supplier assessments. Flexible procurement policies enable the university to negotiate customized contract terms and engage suppliers capable of meeting high-quality standards. Chinedu and Lawal (2023) reported that private universities with rigorous supplier evaluation frameworks experience lower project failure rates and higher stakeholder satisfaction.

Technological adoption further strengthens supplier evaluation in private settings. E-procurement systems and supplier performance dashboards enable real-time tracking of key performance metrics and facilitate evidence-based decision-making (Ojo et al., 2023). Igbinedion University has begun leveraging these tools to enhance transparency and improve accountability, although continuous staff training remains critical to fully realizing their benefits (Akintola et al., 2024).

Stakeholder involvement is another hallmark of effective supplier evaluation in private universities. Including departmental heads, facility managers, and user representatives in supplier selection and monitoring processes ensures that procurement outcomes align with actual operational needs (Ayeni & Nwankwo, 2023). At Igbinedion University, this participatory approach has led to higher levels of user satisfaction and reduced incidents of supply mismatches.

Ethical standards and compliance are also central to supplier evaluation in private universities. Despite the flexibility in operations, private institutions are still susceptible to procurement fraud and conflicts of interest. Ojo and Adewale (2022) emphasized that enforcing ethical codes, conducting periodic ethics workshops, and implementing whistleblowing policies strengthen integrity in supplier relationships.

Regular supplier performance audits are crucial but often underutilized. Oladele and Benson (2022) argued that systematic post-contract evaluations help identify areas for improvement, inform future procurement strategies, and strengthen supplier relationships. At Igbinedion University, institutionalizing regular supplier audits would further improve operational efficiency and build a resilient supplier base.

Capacity building among procurement staff is equally essential. Adegbile and Daramola (2023) highlighted that continuous professional development in areas such as contract law, negotiation, and supply chain analytics empowers staff to execute comprehensive and effective supplier evaluations.

2.1.5 Contract Management and Performance in Public Universities (University of Benin)

Contract management is a crucial pillar of procurement practice in public universities such as the University of Benin, directly shaping the efficiency, compliance, and economic sustainability of institutional operations. In the Nigerian public university context, contract management encompasses the planning, drafting, implementation, monitoring, and closure of agreements with external suppliers and contractors. It ensures that institutional goals are achieved within budget, on time, and in line with legal and regulatory standards (Anene & Balogun, 2023).

A properly managed contract framework enhances transparency, reduces risks, and improves service delivery outcomes. However, in many Nigerian public universities, contract management is often weakened by bureaucratic bottlenecks, inadequate monitoring, and poor documentation practices (Abubakar & Oyetola, 2022). A study by Obasa and Gado (2022) revealed that these inefficiencies frequently lead to project delays, budget overruns, and incomplete infrastructure projects, undermining the overall performance and credibility of public universities like the University of Benin. The Bureau of Public Procurement (BPP) mandates strict guidelines for contract administration to promote accountability and minimize corruption. Yet, implementation at the university level remains inconsistent due to capacity deficits and political interference. According to Adegbite and Yusuf (2023), contract failures are often linked to vague clauses, unclear deliverables, and inadequate penalty structures, which allow contractors to deviate from agreed standards with minimal repercussions.

Technology offers significant potential to transform contract management practices. Contract lifecycle management (CLM) systems can automate approval processes, track milestones, and generate compliance reports. Akintoye and Bello (2022) found that public universities in Nigeria using CLM tools achieved a 35% reduction in litigation cases and improved vendor accountability. Despite these benefits, adoption remains low in the University of Benin due to funding constraints and limited digital expertise among procurement staff (Akintola et al., 2024).

Human capacity is another critical determinant of contract management success. Universities require skilled procurement officers who understand legal frameworks,

negotiation strategies, and risk mitigation techniques. Omotola and Ejike (2021) emphasized that inadequate training and high staff turnover weaken institutional memory and disrupt continuity in contract enforcement, leading to costly disputes and quality compromises.

Regular contract monitoring and evaluation are essential to ensure compliance with terms and conditions. Adeyanju and Folarin (2022) noted that periodic performance assessments and independent audits help identify deviations early and enforce corrective actions, reducing financial leakages and delays. However, a survey by Adebayo and Hassan (2022) indicated that less than 30% of public universities in Nigeria conduct post-contract evaluations, missing critical opportunities for institutional learning and improvement.

Furthermore, stakeholder involvement enhances contract effectiveness. Involving key units such as facilities management, academic departments, and legal offices ensures that contracts align with operational needs and institutional priorities (Ayeni & Nwankwo, 2023). Lack of such cross-functional collaboration in the University of Benin has resulted in mismatched deliverables and underutilized infrastructure, affecting student and staff satisfaction.

Ethical considerations also play a crucial role. Weak enforcement of ethical standards leads to collusion, bribery, and favouritism in contract awards. Ojo and Adewale (2022) stressed that embedding ethics training within procurement governance frameworks fosters integrity and trust, which are essential for sustainable contract outcomes.

In summary, effective contract management in public universities like the University of Benin is integral to achieving value for money, ensuring timely project delivery, and safeguarding institutional reputation. Strengthening this function requires investing in capacity development, adopting digital monitoring tools, enhancing ethical frameworks, and institutionalizing rigorous post-contract evaluations. Only through these measures can public universities overcome systemic inefficiencies and improve their economic performance.

2.1.6 Contract Management and Performance in Private Universities (Igbinedion University)

Contract management in private universities, such as Igbinedion University, is equally vital but benefits from greater flexibility and operational agility compared to public institutions. It involves planning, drafting, negotiating, executing, monitoring, and closing contracts in ways that support institutional goals and competitive positioning. Private universities often face market-driven pressures to deliver high-quality services and maintain strong reputations, making effective contract management an operational necessity (Anene & Balogun, 2023).

Unlike public universities, private institutions have fewer bureaucratic hurdles and can adapt their contract frameworks to rapidly changing needs. Chinedu and Lawal (2023) reported that private universities with streamlined contract management systems experience fewer delays, better project quality, and improved stakeholder satisfaction. At Igbinedion University, the focus on customized service delivery and rapid infrastructure development necessitates precise and proactive contract management practices.

Technological adoption is more pronounced in private settings. Akintoye and Bello (2022) highlighted that private universities using contract lifecycle management (CLM) systems achieved higher transparency and reduced administrative costs by up to 30%. Igbinedion University has begun integrating such systems, which enables real-time tracking of contract performance, early identification of risks, and automated documentation. However, continuous staff training remains essential to fully leverage these technological tools (Akintola et al., 2024).

A significant strength of private universities is their capacity for flexible negotiation. Unlike public counterparts bound by rigid procurement laws, private universities can tailor contract terms to secure better value and quality. This advantage, however, must be balanced with strong governance mechanisms to prevent conflicts of interest and ensure vendor accountability. Ojo et al. (2023) recommended that private institutions formalize negotiation protocols and standardize approval processes to safeguard against opportunistic behaviours.

Ethical and legal compliance is also crucial. Despite their flexibility, private universities are not immune to procurement fraud and contractual breaches. Ojo and Adewale (2022) argued that implementing robust ethical standards and internal controls helps maintain institutional integrity. Regular ethics workshops and clear codes of conduct are vital for ensuring compliance and minimizing reputational risks.

Stakeholder involvement is a distinctive feature of successful contract management in private universities. Including end-users and departmental representatives during the drafting and monitoring stages ensures that contracted services meet actual operational

needs (Ayeni & Nwankwo, 2023). In Igbinedion University, such participatory approaches have improved user satisfaction and reduced disputes over deliverables.

Capacity building remains a critical need. Even though private universities are more autonomous, skill gaps among procurement and contract officers persist. Adebile and Daramola (2023) stressed that continuous professional development programs focusing on contract law, risk analysis, and negotiation skills are essential for sustaining performance improvements.

Post-contract evaluation and supplier audits are often overlooked in private universities. Oladele and Benson (2022) found that regular post-contract reviews help identify performance gaps, inform future contracts, and strengthen supplier relationships. For Igbinedion University, institutionalizing such evaluations will further enhance cost efficiency and operational effectiveness.

In conclusion, effective contract management in private universities like Igbinedion University is critical for sustaining service quality, optimizing resource use, and maintaining competitive advantage. Investing in advanced digital tools, reinforcing ethical standards, involving stakeholders, and building staff capacity are indispensable strategies. By prioritizing these practices, private universities can significantly improve their economic and operational performance, ensuring long-term institutional sustainability.

2.1.7 Staff Competency and Performance in Public Universities (University of Benin)

Staff competency is a fundamental pillar of effective procurement in public universities such as the University of Benin. It encompasses technical expertise,

ethical standards, regulatory knowledge, and administrative skills required to execute procurement activities efficiently and transparently. In public universities, procurement staff must navigate complex regulatory environments, manage large-scale procurement budgets, and ensure compliance with national and institutional policies (Okafor & Ayoola, 2023).

In Nigeria, public university procurement systems are often constrained by bureaucratic red tape, underfunding, and political interference. Staff competency can either mitigate or exacerbate these challenges. A study by Ijaiya and Balogun (2022) found that most procurement inefficiencies in Nigerian public universities were directly linked to skill gaps and inadequate continuous professional development. For instance, insufficient knowledge of public procurement laws, such as the Public Procurement Act of 2007, leads to procedural errors, delayed projects, and audit queries (Obasa & Gado, 2022).

Moreover, the rapidly evolving procurement landscape now demands digital literacy among procurement personnel. As universities adopt e-procurement platforms and contract lifecycle management systems, staff must be proficient in operating these tools to enhance process transparency and efficiency (Akintola et al., 2024). However, a survey by Hassan and Ogbo (2023) revealed that less than 40% of procurement staff in Nigerian public universities had received formal training in digital procurement systems, leading to underutilization of these investments.

Ethical competence is equally critical. In public universities, procurement-related corruption—such as favouritism in vendor selection and contract splitting—remains a significant risk. Ojo and Adewale (2022) stressed that procurement officers with

strong ethical orientation are less likely to engage in malpractice, thereby protecting institutional integrity. To address this, institutions like the University of Benin are encouraged to integrate ethics modules into procurement training and establish independent oversight committees to monitor procurement conduct.

Professional certification is another essential factor. Certifications from bodies such as the Chartered Institute of Purchasing and Supply (CIPS) and the Nigerian Institute of Purchasing and Supply Management (NIPSM) have been linked to improved procurement outcomes. Adegbile and Daramola (2023) observed that certified staff in public universities demonstrated higher compliance with procurement policies, better cost control, and improved audit performance.

Furthermore, succession planning and mentorship are often neglected in public universities. Omotola and Ejike (2021) highlighted that frequent staff rotations without adequate knowledge transfer weaken institutional memory and continuity. For University of Benin, implementing structured mentorship programs can ensure that emerging staff acquire practical skills and understand institutional procurement culture.

Collaboration between procurement units and other departments (e.g., finance, academics, administration) is also vital. According to Ayeni and Nwankwo (2023), universities that foster cross-departmental coordination report improved procurement accuracy, reduced delays, and better alignment with institutional priorities.

In conclusion, enhancing staff competency in public universities like the University of Benin requires a comprehensive approach that includes continuous professional development, ethical training, digital literacy upgrades, professional certification, and

robust mentorship frameworks. By investing in these areas, public universities can strengthen procurement performance, minimize risks, and support overall institutional sustainability.

2.1.8 Staff Competency and Performance in Private Universities (Igbinedion University)

In private universities such as Igbinedion University, staff competency is a decisive factor in achieving procurement efficiency, maintaining competitiveness, and sustaining financial health. Private universities operate in a dynamic, market-driven environment that demands agility, accountability, and high service standards (Chinedu & Lawal, 2023).

Unlike public institutions, private universities generally enjoy operational autonomy, which allows for more flexibility in hiring and training procurement staff. However, this flexibility does not eliminate competency challenges. Eze and Ogundipe (2021) reported that private universities in Nigeria often employ procurement officers without adequate formal training or relevant professional certifications, relying instead on on-the-job experience. This can result in procedural errors, cost inefficiencies, and weakened supplier relationships.

Professional development is essential to bridge these gaps. Adegbile and Daramola (2023) emphasized that private universities investing in staff training programs achieve higher procurement compliance rates and better contract performance. Certifications from CIPS and NIPSM not only enhance technical capacity but also improve credibility with external stakeholders, such as donors and accreditation agencies.

Digital competency is increasingly important in private university procurement. Igbinedion University, for example, has begun adopting e-procurement platforms to improve procurement cycle speed and transparency. Akintola et al. (2024) noted that procurement officers who are proficient in digital tools can more effectively manage supplier databases, analyse expenditure patterns, and ensure compliance with procurement policies. However, continuous digital training is needed to fully leverage these systems.

Ethical standards are critical to mitigate procurement-related risks such as fraud and conflict of interest. Ojo and Adewale (2022) highlighted that strong institutional ethics codes and regular ethics workshops enhance procurement transparency and stakeholder confidence. At Igbinedion University, fostering an ethical culture can safeguard the institution's reputation and prevent costly legal or operational setbacks. Furthermore, private universities benefit from clear role definitions and streamlined governance structures. According to Olowu and Ebong (2021), institutions with well-defined procurement hierarchies and clear reporting lines experience faster decision-making and reduced operational conflicts. For Igbinedion University, implementing detailed job descriptions and responsibility matrices can improve staff accountability and reduce procurement cycle times.

Interdepartmental collaboration is another key aspect. Effective communication and cooperation between procurement, finance, academic, and administrative departments ensure that procurement activities align with institutional needs and strategic objectives (Ayeni & Nwankwo, 2023). This holistic approach reduces waste, prevents resource misallocation, and supports seamless service delivery.

Lastly, mentorship and internal capacity-building programs are essential for sustainability. Akinola and Okonkwo (2022) argued that mentorship programs in private universities help cultivate leadership skills, preserve institutional knowledge, and build a resilient procurement workforce. For Igbinedion University, structured mentorship initiatives can prepare junior staff for leadership roles and reduce dependence on external consultants.

In conclusion, staff competency in private universities like Igbinedion University is fundamental to institutional performance and long-term sustainability. By prioritizing professional development, ethical governance, digital literacy, clear role definitions, and mentorship, private universities can significantly strengthen their procurement systems and enhance their competitive advantage.

2.1.9 Inventory Management and Performance in Public Universities (University of Benin)

Inventory management is a critical aspect of procurement practice in public universities like the University of Benin, directly affecting operational efficiency, cost control, and service continuity. Effective inventory systems help ensure the availability of essential supplies such as laboratory equipment, instructional materials, and maintenance resources, which are crucial for smooth academic and administrative operations (Okonkwo & Chukwu, 2022).

Public universities in Nigeria often face significant inventory management challenges due to underfunding, bureaucratic inefficiencies, and weak oversight mechanisms. According to Bala and Ogundele (2021), many public universities rely on outdated manual inventory systems, resulting in frequent stockouts, overstocking, and resource

misallocations. In the University of Benin, such inefficiencies have led to delays in laboratory sessions and disruptions in maintenance projects, ultimately affecting student learning experiences and institutional credibility (Okonkwo & Etim, 2024).

Digitalization offers a powerful solution to these challenges. The adoption of Enterprise Resource Planning (ERP) systems allows for real-time tracking, automated replenishment, and better integration with procurement and finance departments. A recent study by Hassan and Ogbo (2023) revealed that Nigerian public universities that implemented ERP systems experienced a 30% improvement in stock visibility and a 25% reduction in procurement-related delays. However, widespread adoption remains limited due to cost constraints and resistance to change among staff.

Inventory audits are another crucial component of effective inventory management. Olatunji and Eze (2024) reported that more than 40% of Nigerian public universities do not conduct annual inventory audits, leading to ghost inventory, asset misappropriation, and inaccurate financial reporting. Regular audits at the University of Benin would not only improve accountability but also strengthen budget planning and compliance with regulatory standards.

Classification and prioritization techniques, such as ABC and VED analyses, can help universities allocate resources efficiently. Umeh and Olayinka (2021) demonstrated that public institutions using these models achieved up to 20% reductions in excess stock and improved response times for critical supplies. This approach ensures that high-priority and high-value items are consistently available, supporting uninterrupted academic operations.

Storage conditions and security are also vital for maintaining inventory integrity. Ajayi and Bello (2023) found that poor storage facilities in Nigerian public universities resulted in the degradation and theft of expensive instructional and laboratory materials. Upgrading warehouse infrastructure and implementing stricter access controls at the University of Benin would significantly enhance inventory reliability and reduce replacement costs.

Staff competency plays a fundamental role in inventory management success. Adeyanju and Folarin (2022) stressed that trained inventory officers ensure accurate record-keeping, proper classification, and effective stock forecasting. Continuous training programs focused on modern inventory control techniques and digital systems are therefore essential.

In conclusion, effective inventory management in public universities like the University of Benin involves integrating digital tools, conducting regular audits, applying robust classification methods, improving storage infrastructure, and investing in staff development. By addressing these areas, the University of Benin can strengthen operational efficiency, enhance service delivery, and achieve better financial performance.

2.1.10 Inventory Management and Performance in Private Universities (Igbinedion University)

Inventory management is equally vital in private universities such as Igbinedion University, where institutional success depends heavily on efficiency, responsiveness, and cost-effectiveness. Unlike public institutions, private universities often operate

under competitive market pressures that demand superior resource utilization and service reliability (Chinedu & Lawal, 2023).

Private universities benefit from greater operational flexibility, allowing them to adopt advanced inventory management practices more rapidly. Eze and Ogundipe (2021) noted that many private universities in Nigeria have embraced digital inventory systems to enhance real-time monitoring and improve procurement planning. At Igbinedion University, such systems enable precise tracking of laboratory materials, teaching aids, and administrative supplies, thereby minimizing stockouts and reducing emergency procurement costs.

Moreover, ERP systems have proven particularly effective in private university settings. Hassan and Ogbo (2023) reported that private institutions using ERP tools achieved up to 35% improvements in stock accuracy and 20% reductions in annual operational waste. These systems integrate procurement, finance, and inventory functions, enabling seamless data sharing and informed decision-making.

Regular inventory audits are essential to maintain accuracy and deter misappropriation. Olatunji and Eze (2024) found that private universities conducting systematic audits reported fewer discrepancies and improved financial transparency. For Igbinedion University, institutionalizing annual audits and random spot checks would bolster accountability and support strategic resource planning.

Classification and demand forecasting techniques are crucial in private university inventory management. Umeh and Olayinka (2021) emphasized that using ABC and VED analysis enables private institutions to prioritize critical items, ensure constant availability, and reduce overstocking. Igbinedion University can leverage these

models to optimize inventory levels and align procurement activities with academic calendars.

Storage facilities also influence inventory performance. Ajayi and Bello (2023) revealed that secure, well-maintained storage environments in private universities reduced material losses due to theft and environmental damage. Investments in climate-controlled warehouses and strict access protocols at Igbinedion University would help protect high-value resources and reduce long-term replacement expenses.

Staff competency remains central to successful inventory management. Adeyanju and Folarin (2022) highlighted that private universities investing in regular staff training on modern inventory techniques and data analytics achieved faster stock turnover and greater operational efficiency. At Igbinedion University, continuous capacity building would ensure that inventory managers stay updated on global best practices and technological advancements.

Additionally, cross-departmental collaboration strengthens inventory systems. Effective communication between procurement, finance, academic, and administrative units ensures accurate needs assessment and prevents resource duplication (Ayeni & Nwankwo, 2023). Such coordination supports strategic alignment and enhances service delivery, ultimately improving student and faculty satisfaction.

CHAPTER THREE

LITERATURE REVIEW

3.0 Introduction

This chapter presents a comprehensive review of the literature on the economic impact of procurement practices in higher education, with a specific focus on the University of Benin and Igbinedion University. It begins by clarifying key concepts and operational definitions related to procurement functions and economic performance. Next, it develops a conceptual framework that links procurement activities such as planning, supplier evaluation, contract management, staff competency, and inventory control to institutional financial and operational outcomes. This is followed by an examination of theoretical perspectives underlying these relationships and an empirical review of recent studies, both globally and within Nigeria. The chapter concludes by identifying gaps in existing research and establishing a foundation for the subsequent analysis. Each section is structured to maintain clarity and coherence, aligned with your study's objectives, variables, and the two-model framework for public and private universities.

3.1 Conceptual Clarifications

3.1.1 Academic Performance in Tertiary Institutions

University academic performance has emerged as a critical focus in academic and policy discussions globally, particularly in developing countries like Nigeria where educational institutions play a central role in driving socio-economic development. University performance generally refers to the extent to which a university achieves its core objectives, including quality education delivery, research outputs, community

service, and efficient administrative management. Performance is often evaluated through multiple dimensions such as financial sustainability, student satisfaction, research excellence, staff development, and the institution's contribution to national development (Okebukola & Adediran, 2022).

In Nigeria, university performance is frequently hampered by structural challenges such as underfunding, infrastructural decay, bureaucratic bottlenecks, and inadequate academic resources. These problems are more pronounced in public universities, where heavy reliance on government funding constrains institutional autonomy and flexibility. On the other hand, private universities, such as Igbinedion University, often demonstrate relatively higher operational efficiency due to flexible governance structures and diversified revenue sources. However, they too face challenges related to affordability and accessibility (Adebayo & Ojo, 2023).

Academic performance, a major component of university performance, is evaluated through graduation rates, student retention, employability of graduates, and accreditation ratings. Institutions that maintain high academic standards tend to enjoy better reputations, attract top-quality faculty and students, and secure research grants. Moreover, research productivity, including publications in reputable journals and innovation outputs, is an essential measure of performance. Universities that foster strong research cultures contribute significantly to technological advancement and policy development (Osagie & Egbai, 2022).

Administrative efficiency is another important indicator of university performance. Efficient administration ensures proper resource allocation, transparent financial management, and effective service delivery. This efficiency is directly linked to

procurement practices, as poor procurement leads to delays in project execution, cost overruns, and compromised quality of academic infrastructure (Uche & Ede, 2023). Conversely, effective procurement supports timely delivery of goods and services, optimal utilization of funds, and enhanced institutional accountability.

The concept of university performance also encompasses the quality of student life and support services. This includes the availability of adequate hostel facilities, library resources, laboratory equipment, and health services. When universities provide comprehensive student support, they foster a conducive learning environment that enhances academic outcomes and student satisfaction (Onyema & Adeyemi, 2023). Furthermore, alumni success and contributions to society are increasingly used as long-term measures of institutional performance, reflecting the impact of university education on broader societal development.

The global trend toward performance-based funding and ranking systems has heightened the importance of performance metrics in higher education. Many Nigerian universities, particularly public ones, are now required to demonstrate measurable improvements in various performance indicators to secure government subventions and attract external funding. Similarly, private universities compete for students and recognition through the demonstration of superior performance outcomes (Ogbonna & Nwankwo, 2023).

Quality assurance mechanisms, such as internal and external audits, accreditation processes, and periodic performance reviews, are instrumental in promoting university performance. These mechanisms help identify areas for improvement, ensure compliance with regulatory standards, and strengthen institutional credibility.

Additionally, strategic leadership and governance are crucial factors that influence performance. Universities with visionary leadership tend to implement effective policies, mobilize resources efficiently, and foster a culture of excellence (Adamu & Yusuf, 2022).

In the Nigerian context, the relationship between procurement practices and university performance has attracted growing attention from scholars and policymakers. Effective procurement ensures that essential academic and infrastructural resources are procured transparently, cost-effectively, and timely, thereby supporting various dimensions of performance. Conversely, procurement inefficiencies contribute to resource wastage, project delays, and deterioration of institutional quality (Ibhadode & Igbinedion, 2024).

As universities strive to align with global best practices, there is a greater emphasis on integrating technological innovations in administrative processes, including procurement. E-procurement systems, for example, have been shown to enhance efficiency, reduce corruption, and improve service delivery in university settings (Akintola et al., 2024). The adoption of these systems is gradually gaining traction in both public and private universities in Nigeria, though challenges related to capacity and infrastructure persist.

Overall, university performance is a multifaceted construct that reflects the institution's ability to achieve its educational, research, administrative, and community engagement objectives. The pursuit of excellence in university performance requires not only robust governance and leadership but also strategic procurement practices that ensure efficient resource utilization. By addressing these critical areas,

universities can better contribute to national development goals and position themselves competitively within the global higher education landscape.

3.1.2 Procurement Practices

Procurement practices represent a comprehensive set of activities and policies through which organizations acquire goods, services, and works from external sources. In universities, procurement practices encompass all strategies and operational processes used to ensure the timely, cost-effective, and transparent acquisition of materials necessary for academic and administrative functions. These practices are crucial for supporting educational service delivery, enhancing financial stewardship, and promoting institutional sustainability (Salami et al., 2024).

Effective procurement practices go beyond simple purchasing transactions; they involve strategic planning, supplier assessment, contract negotiation, monitoring, and inventory management. Through well-designed procurement processes, universities can achieve better value for money, maintain compliance with regulatory standards, and mitigate risks related to supply chain disruptions or budget overruns (Obasa & Gado, 2022). In the context of Nigerian universities, procurement practices are particularly critical given the operational challenges faced by both public and private institutions. Public universities such as the University of Benin often grapple with bureaucratic bottlenecks, limited budgetary allocations, and complex compliance requirements. Private universities like Igbinedion University, on the other hand, prioritize agility and competitiveness, necessitating highly efficient and flexible procurement systems (Ibhadode & Igbinedion, 2024).

A central aspect of effective procurement practices is strategic alignment with institutional objectives. By integrating procurement strategies into the broader university goals, institutions can ensure that resource allocation supports priority programs and infrastructural development. This alignment enhances the ability of universities to achieve academic excellence, improve operational efficiency, and maintain financial viability (Adeniran & Omotayo, 2021).

Transparency and accountability are core principles guiding procurement practices in universities. Transparent procurement processes build stakeholder confidence, reduce opportunities for corruption, and foster fair competition among suppliers. In Nigeria, adherence to the Public Procurement Act and other regulatory guidelines is vital to uphold institutional integrity and promote ethical standards in procurement (BPP, 2022).

Technological advancements have significantly transformed procurement practices in higher education. The adoption of e-procurement platforms, digital supplier evaluation tools, and integrated inventory systems enhances procurement efficiency and enables real-time monitoring of transactions. Universities leveraging technology in procurement report reduced administrative costs, improved data accuracy, and stronger supplier relationships (Asogwa & Nwachukwu, 2022).

Moreover, procurement practices serve as an enabler of risk management. By establishing clear procurement policies, implementing robust supplier evaluation criteria, and enforcing strict contract terms, universities can mitigate various operational and financial risks. Such proactive approaches help prevent project delays,

cost escalations, and legal disputes, thereby protecting institutional interests (Anene & Balogun, 2023).

Capacity building among procurement staff is essential for successful procurement practices. Staff training in procurement regulations, ethical standards, and digital tools equips personnel to execute procurement activities more effectively and with greater integrity. Universities that invest in continuous professional development for their procurement teams often experience enhanced compliance, better negotiation outcomes, and more efficient procurement cycles (Adegbile & Daramola, 2023).

Finally, sustainable procurement practices are increasingly gaining prominence. Universities are now encouraged to consider social, economic, and environmental impacts when making procurement decisions. This approach aligns with global sustainability agendas and demonstrates institutional commitment to corporate social responsibility (CSR) (Olawale & Akinyemi, 2022). In summary, procurement practices represent a strategic lever for improving university performance. Effective, transparent, and technology-driven procurement systems support cost efficiency, risk mitigation, and service delivery, ultimately contributing to the economic impact and operational success of higher education institutions.

3.1.2.1 Procurement Planning

Procurement planning is a foundational function within procurement management that determines the efficiency and effectiveness of resource acquisition in organizations. In the context of universities, procurement planning involves systematically identifying institutional needs, setting procurement objectives, estimating costs, defining procurement schedules, and aligning procurement activities with strategic goals. A

well-structured procurement plan ensures that required goods and services are delivered on time, within budget, and in compliance with regulatory standards (Adeniran & Omotayo, 2021).

The importance of procurement planning in universities cannot be overstated. Effective planning minimizes emergency purchases, reduces procurement costs, and supports academic continuity by preventing stockouts and delays. For public universities like the University of Benin, procurement planning helps in managing limited government allocations effectively, ensuring that funds are used judiciously to achieve maximum value. In private universities such as Igbinedion University, procurement planning supports operational flexibility, enabling institutions to swiftly adapt to evolving academic and infrastructural needs (Ogunsanmi & Oke, 2023).

A robust procurement plan includes comprehensive needs assessments that involve various stakeholders such as faculty heads, finance officers, and procurement managers. Engaging stakeholders ensures that procurement activities are closely aligned with actual institutional requirements, thereby avoiding resource wastage and procurement mismatches (Obasi & Emefiele, 2020). Moreover, participatory planning enhances transparency and accountability, which are critical in both public and private university settings.

Inadequate procurement planning often leads to fragmented purchasing, inflated costs, and project delays. Studies have shown that Nigerian universities that lack effective planning mechanisms frequently encounter stalled infrastructural projects and delayed procurement of essential academic materials, negatively affecting teaching and learning activities (Eze & Mbah, 2023). Furthermore, poor planning undermines

financial discipline, as institutions may resort to emergency procurements that do not leverage economies of scale or competitive bidding.

Technological integration has transformed procurement planning practices in many universities. E-procurement platforms and enterprise resource planning (ERP) systems are increasingly used to streamline procurement activities, automate approval processes, and provide real-time tracking of procurement status (Asogwa & Nwachukwu, 2022). These tools improve procurement accuracy, enhance data transparency, and facilitate better financial oversight, ultimately contributing to stronger institutional performance.

Budgeting is another critical element of procurement planning. Aligning procurement plans with institutional budgets ensures that resource allocations support priority projects and operational needs. Budget-driven procurement planning fosters financial sustainability, particularly in public universities that rely heavily on government subventions. In private universities, strategic budgeting supports revenue optimization and cost control, helping to maintain competitive tuition rates and quality service delivery (Yakubu & Ibrahim, 2021).

Risk management is an often overlooked but crucial aspect of procurement planning. Identifying potential risks, such as supplier failures or market price fluctuations, and developing mitigation strategies are essential for sustaining procurement efficiency. Universities that proactively incorporate risk assessments into procurement plans are better equipped to handle disruptions and maintain service delivery (Nyarko & Boateng, 2022).

Moreover, procurement planning serves as a foundation for performance evaluation. By establishing clear timelines, milestones, and performance indicators, universities can monitor procurement progress, identify bottlenecks, and implement corrective actions where necessary. This approach promotes a culture of continuous improvement and operational excellence (Adepoju et al., 2023).

Capacity building is equally important for effective procurement planning. Training procurement officers on best practices, regulatory requirements, and technological tools enhances their ability to develop and execute comprehensive procurement plans. Institutions that invest in staff capacity development tend to achieve better procurement outcomes, reduce compliance risks, and improve overall institutional performance (Adegbile & Daramola, 2023).

In conclusion, procurement planning is a strategic function that supports efficient resource utilization, financial control, and institutional performance in universities. Whether in public or private universities, robust procurement planning is essential for ensuring that procurement activities align with institutional goals and contribute to the achievement of educational and operational objectives.

3.1.2.2 Supplier Evaluation

Supplier evaluation refers to the systematic assessment of potential and existing suppliers based on criteria such as financial stability, technical capacity, quality standards, delivery reliability, and compliance with ethical and regulatory requirements. In universities, supplier evaluation plays a crucial role in ensuring that goods and services are procured from reputable vendors who can meet institutional

expectations in terms of quality, timeliness, and cost-effectiveness (Abiola & Igbokwe, 2022).

The evaluation process involves both pre-qualification assessments and continuous performance reviews. Pre-qualification helps universities identify suppliers who possess the necessary resources, expertise, and track record to deliver critical academic and infrastructural supplies. Continuous evaluations, on the other hand, ensure that suppliers maintain high standards throughout the contract period (Musa & Adeyemi, 2021).

In public universities like the University of Benin, supplier evaluation supports compliance with government procurement regulations, which emphasize transparency, competitiveness, and value for money. Failure to rigorously evaluate suppliers can result in the engagement of underqualified vendors, leading to substandard deliveries, contract disputes, and financial losses. In private universities such as Igbinedion University, supplier evaluation enhances operational flexibility and helps maintain quality standards critical for institutional reputation and student satisfaction (Chinedu & Lawal, 2023).

Technological advancements have improved supplier evaluation practices through the use of digital scorecards, automated performance tracking systems, and supplier databases. These tools enable procurement units to analyse supplier performance metrics comprehensively and make informed decisions (Ojo et al., 2023). Moreover, integrating stakeholder feedback into supplier evaluation processes ensures that procurement decisions align with the needs of end-users, including academic departments and administrative units (Okeke & Dogo, 2020).

A major benefit of effective supplier evaluation is risk mitigation. By assessing suppliers' financial health and operational capacity, universities can reduce the risk of supply chain disruptions, contract breaches, and fraud. Institutions that implement robust evaluation frameworks often experience fewer procurement-related disputes and achieve better project outcomes (Ahmed & Oyebanji, 2021).

Supplier evaluation also fosters long-term partnerships based on trust and performance consistency. Universities that cultivate strategic relationships with reliable suppliers benefit from better pricing, priority service, and shared innovation initiatives. These partnerships are particularly valuable in the context of complex and large-scale procurement projects, such as campus infrastructure development and laboratory equipment procurement (Oladele & Benson, 2022).

Challenges in supplier evaluation include inadequate data, political interference, and capacity constraints within procurement units. Many universities lack standardized evaluation templates and comprehensive supplier databases, which hampers objective assessments. Addressing these challenges requires investments in procurement governance, staff training, and the development of clear evaluation policies (Edeh & Olanrewaju, 2022).

Moreover, ethical considerations are integral to supplier evaluation. Universities must ensure that suppliers adhere to environmental, labour, and human rights standards. This ethical dimension not only enhances institutional reputation but also aligns procurement practices with global sustainability goals (Gamage & Wickramasinghe, 2023). In summary, supplier evaluation is a strategic procurement function that supports quality assurance, risk management, and cost-efficiency in universities. By

implementing rigorous and transparent evaluation processes, universities can enhance procurement outcomes, improve service delivery, and strengthen institutional performance.

3.1.2.3 Contract Management

Contract management refers to the process of systematically managing procurement contracts from initiation to closure to ensure that all parties fulfil their contractual obligations effectively and efficiently. In universities, contract management is vital for ensuring that goods and services are delivered on time, within budget, and to the required quality standards (Anene & Balogun, 2023).

The process includes contract planning, negotiation, execution, monitoring, and evaluation. Effective contract management reduces project risks, minimizes disputes, and enhances supplier performance. In public universities, such as the University of Benin, robust contract management is essential to avoid budget overruns, project delays, and compliance violations. In private universities like Igbinedion University, strong contract management ensures agility in procurement operations, supporting timely project completion and quality assurance (Odeyemi & Uba, 2022).

Monitoring contract performance is a critical component of contract management. This involves tracking progress against agreed milestones, verifying deliverables, and assessing supplier compliance with terms and conditions. Universities that adopt proactive monitoring practices are better able to identify issues early and implement corrective actions promptly (Adegbite & Yusuf, 2023).

Technology plays a significant role in modern contract management through the use of Contract Lifecycle Management (CLM) systems. These systems streamline contract

creation, automate approval workflows, and provide real-time analytics for informed decision-making. Universities utilizing CLM tools experience fewer legal disputes, faster contract approvals, and improved supplier collaboration (Akintoye & Bello, 2022).

Risk management is integral to contract management. Universities face risks such as non-performance, price escalations, and regulatory breaches. Including risk mitigation clauses in contracts, such as penalty provisions and performance bonds, helps protect institutional interests. Additionally, periodic contract reviews and audits promote accountability and continuous improvement (Nnaji & Isong, 2023). Capacity building among procurement staff is also vital. Training in contract law, negotiation techniques, and risk analysis equips staff with the skills needed to manage contracts effectively. Institutions that prioritize staff capacity development report higher contract compliance rates and better project outcomes (Omotola & Ejike, 2021). Challenges in contract management include inadequate monitoring, lack of standardized procedures, and insufficient technological infrastructure. Public universities often face bureaucratic hurdles that delay contract approvals and enforcement, while private universities may struggle with resource constraints affecting monitoring capabilities (Adekoya & Salisu, 2023).

Furthermore, ethical considerations are crucial in contract management. Universities must ensure fairness, transparency, and integrity in contract awards and execution. Adherence to ethical standards reduces corruption risks and strengthens stakeholder confidence in institutional governance (Abubakar & Oyetola, 2022).

In conclusion, contract management is a strategic procurement function that enhances operational efficiency, cost control, and institutional credibility. Effective contract management ensures that procurement objectives are achieved, thereby contributing to the overall performance of universities.

3.1.2.4 Staff Competency

Staff competency in procurement refers to the knowledge, skills, and ethical orientation of personnel responsible for managing procurement functions. Competent procurement staff are essential for ensuring transparency, efficiency, and compliance in procurement activities (Okafor & Ayoola, 2023). Key competencies include an understanding of procurement laws and policies, analytical skills, negotiation abilities, and proficiency in using procurement technologies. In universities, competent procurement staff support effective resource utilization, timely service delivery, and strategic procurement planning. Public universities like the University of Benin require staff who can navigate complex regulatory frameworks and manage large-scale procurement projects. Private universities such as Igbinedion University rely on staff competency to maintain operational flexibility and cost efficiency (Ijaiya & Balogun, 2022).

Continuous professional development is crucial for enhancing staff competency. Training programs, certifications from professional bodies like the Chartered Institute of Purchasing and Supply (CIPS), and workshops on emerging procurement trends help staff stay updated on best practices. Institutions that invest in capacity development report improved procurement outcomes, reduced compliance risks, and higher staff morale (Adegbile & Daramola, 2023).

Ethical standards are equally important. Staff who adhere to ethical principles prevent procurement malpractices such as favouritism, bribery, and contract manipulation. Universities that embed ethical training into procurement capacity-building programs enhance institutional integrity and public trust (Ojo & Adewale, 2022). Technological competency is increasingly relevant as universities adopt e-procurement systems and data analytics tools. Staff must be capable of using these platforms to streamline processes, enhance data accuracy, and generate performance reports. Institutions with technologically proficient staff experience reduced administrative costs and improved procurement cycle times (Akintola et al., 2024).

Team structure and clear role definitions also influence staff competency. Overlapping responsibilities and unclear reporting lines lead to inefficiencies and accountability gaps. Universities that establish clear organizational structures and define procurement roles foster accountability, faster decision-making, and better resource coordination (Olowu & Ebong, 2021).

Collaboration with other departments, such as finance and academic units, strengthens procurement accuracy and strategic alignment. When procurement staff work closely with stakeholders, they gain deeper insights into institutional needs, which supports more effective procurement planning and execution (Ayeni & Nwankwo, 2023).

Challenges to staff competency include budget constraints, resistance to change, and limited access to training opportunities. Universities must address these challenges by prioritizing procurement capacity development and creating incentives for continuous learning (Eze & Ogundipe, 2021). In summary, staff competency is a vital determinant of procurement effectiveness and overall institutional performance. By

building and maintaining a highly skilled, ethical, and technologically capable procurement workforce, universities can achieve strategic procurement goals, reduce risks, and enhance operational efficiency.

3.1.2.5 Inventory Management

Inventory management refers to the systematic planning, organizing, and controlling of inventory levels to ensure the availability of materials while minimizing costs and inefficiencies. In universities, effective inventory management ensures the timely availability of academic materials, maintenance supplies, and administrative resources (Okonkwo & Chukwu, 2022).

Proper inventory management supports operational continuity, prevents stockouts, and reduces excess inventory that ties up financial resources. Public universities like the University of Benin often face challenges such as manual record-keeping and limited storage facilities, which result in frequent stock discrepancies and material wastage. Private universities like Igbinedion University tend to adopt more modern inventory systems, including digital tracking tools and automated reorder systems, enhancing efficiency and reducing operational costs (Adebisi & Folorunsho, 2023).

Technological advancements have transformed inventory management practices in universities. Enterprise Resource Planning (ERP) systems integrate procurement and inventory functions, providing real-time visibility into stock levels, consumption patterns, and procurement needs. These systems improve decision-making, reduce lead times, and enhance financial oversight (Hassan & Ogbo, 2023). Inventory classification methods, such as ABC analysis, enable universities to prioritize high-value or critical items while minimizing holding costs for less important materials.

This targeted approach to inventory control optimizes resource allocation and reduces unnecessary procurement expenditures (Umeh & Olayinka, 2021).

Regular inventory audits are essential for verifying stock records, identifying discrepancies, and preventing losses due to theft or obsolescence. Universities that conduct routine audits report improved inventory accuracy, reduced losses, and enhanced accountability (Olatunji & Eze, 2024).

Storage conditions also impact inventory performance. Inadequate storage facilities expose materials to damage and environmental hazards. Investments in secure, climate-controlled storage spaces help maintain the quality of academic resources and extend their usable life, thereby supporting operational efficiency (Ajayi & Bello, 2023). Staff competency in inventory management is crucial. Trained inventory managers ensure proper documentation, compliance with internal controls, and efficient stock handling. Universities that invest in staff training achieve higher inventory accuracy, better stock forecasting, and enhanced procurement planning (Adeyanju & Folarin, 2022). Despite these benefits, challenges persist. Public universities often struggle with funding constraints, bureaucratic hurdles, and resistance to technological adoption. Private universities may face capacity limitations and high implementation costs for advanced inventory systems. Addressing these challenges requires strategic planning, capacity building, and sustained investments in infrastructure and technology (Bala & Ogundele, 2021).

3.1.3 Gaps in Literature

Despite the extensive body of literature on procurement practices and university performance, several critical gaps remain, particularly in the Nigerian context. First,

while numerous studies have examined procurement practices broadly in public sector institutions, there is limited empirical focus on the higher education sector, especially on how procurement practices directly influence university academic performance metrics such as academic quality, financial sustainability, and service delivery. Most existing works focus on government ministries or corporate organizations, leaving a notable research void regarding universities (Ogunsanmi & Oke, 2023; Obasa & Gado, 2022).

Furthermore, much of the existing literature tends to treat procurement practices as a uniform construct without adequately disaggregating its key dimensions, such as procurement planning, supplier evaluation, contract management, staff competency, and inventory management. These components have unique impacts on institutional performance and deserve to be analysed both individually and collectively. While some studies acknowledge these dimensions, they often lack in-depth empirical evidence that explicitly connects each element to specific performance outcomes in universities (Ibhadode & Igbinedion, 2024; Adegbile & Daramola, 2023).

Another critical gap is the limited comparative analysis between public and private universities in Nigeria. Although both types of institutions face procurement challenges, their operational contexts, funding mechanisms, and governance structures differ significantly. Public universities typically rely on government funding and are subject to stricter regulatory frameworks, which can create procurement bottlenecks and inefficiencies. In contrast, private universities often operate with more agility and have more flexible procurement processes, though they may encounter challenges related to cost constraints and scale (Adebayo & Ojo, 2023; Chinedu & Lawal, 2023).

Existing studies rarely conduct parallel analyses that highlight these differences and how they shape procurement outcomes and institutional performance.

Moreover, there is a lack of comprehensive studies incorporating modern technological advancements such as e-procurement systems and integrated inventory management platforms. While some literature notes the benefits of technology in improving procurement efficiency, there is scarce empirical evidence on its adoption levels, challenges, and impact on performance in Nigerian universities (Asogwa & Nwachukwu, 2022; Akintola et al., 2024). This oversight is significant given the global shift towards digital transformation and the potential of technology to address procurement inefficiencies and corruption.

In addition, many studies focus predominantly on theoretical perspectives or descriptive analyses without providing robust empirical validations through primary data collected directly from university stakeholders. There is a need for research that utilizes empirical methodologies to measure and test the relationships between procurement practices and university performance. Such studies would provide actionable insights that can guide policy reforms and strategic decisions at the institutional level (Okafor & Ayoola, 2023). The literature also reveals limited exploration of the role of procurement staff competency and ethical orientation in shaping procurement outcomes. While the importance of staff capacity is frequently mentioned, few studies delve into how training, certification, and ethical standards concretely affect procurement effectiveness and, by extension, institutional performance (Adegbile & Daramola, 2023; Ojo & Adewale, 2022).

Finally, there is insufficient attention to sustainability considerations within procurement practices in Nigerian universities. As global best practices increasingly emphasize sustainable and socially responsible procurement, Nigerian universities lag behind in integrating environmental, social, and governance (ESG) criteria into their procurement decisions (Olawale & Akinyemi, 2022). Addressing this gap is critical to aligning university operations with broader development goals and enhancing institutional reputation.

3.2 Conceptual Framework

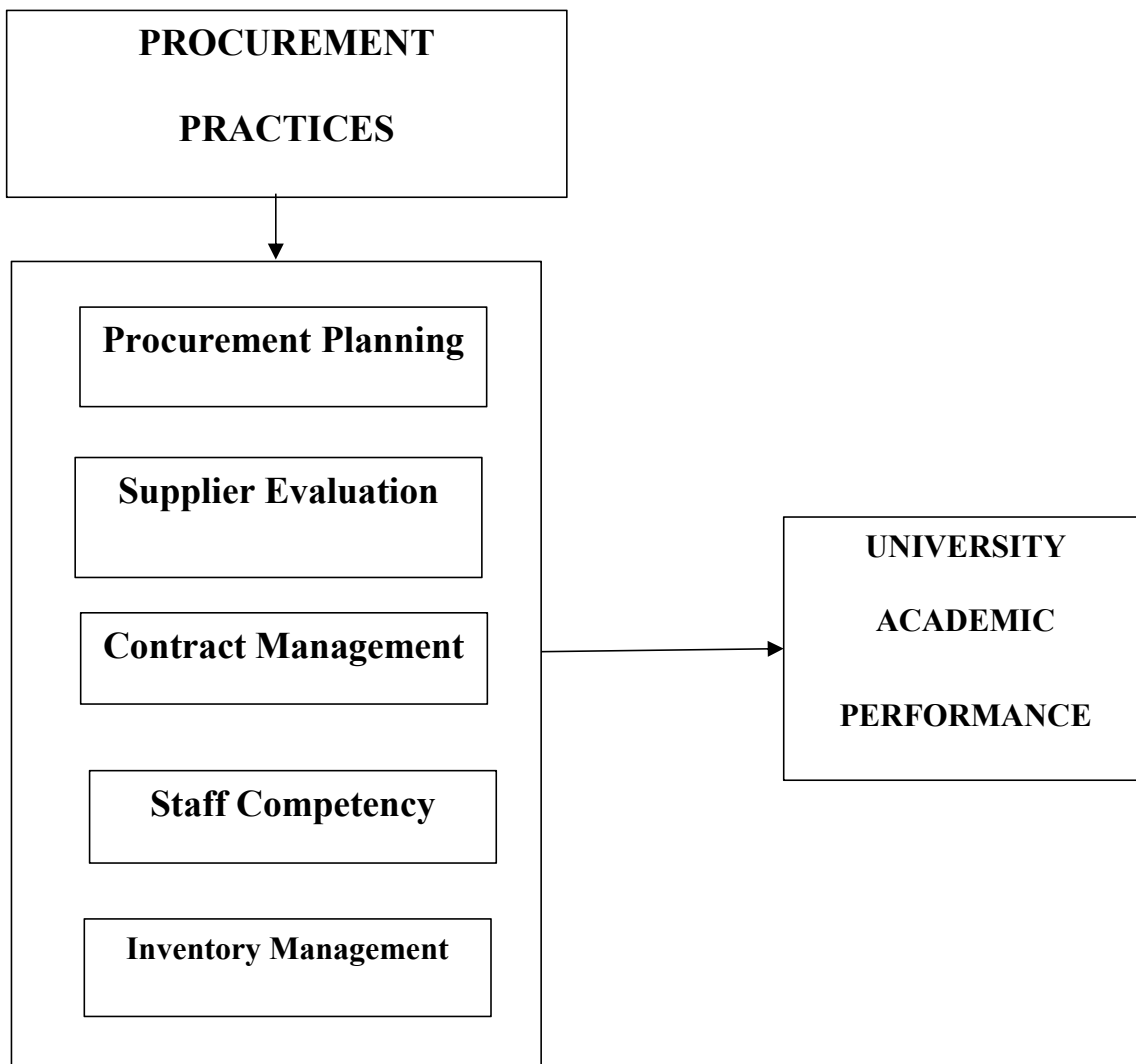


Figure 3.1: Conceptual framework showing the relationship between procurement practices and university performance.

3.3 Review of Theoretical Literature

This section reviews theories that provide conceptual insights into how procurement practices influence university performance, particularly in the Nigerian higher education context. These theories help explain the strategic importance of procurement, its role in minimizing operational inefficiencies, and its impact on institutional competitiveness. Reviewing these theories strengthens the analytical foundation of this study and supports the examination of procurement functions across both public and private universities.

3.3.1 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) theory posits that an organization's resources and capabilities are critical determinants of its competitive advantage and overall performance. Initially developed by Wernerfelt (1984) and further refined by Barney (1991), RBV emphasizes that resources that are valuable, rare, inimitable, and non-substitutable (VRIN) enable firms to achieve sustained competitive advantage. In the context of universities, procurement practices are seen as strategic resources that support the delivery of academic programs, infrastructural development, and administrative efficiency (Salami et al., 2024).

By effectively managing procurement processes, universities can secure high-quality resources at optimal costs, thereby enhancing service delivery and supporting strategic objectives. For public universities like the University of Benin, the ability to develop procurement competencies helps mitigate the limitations imposed by bureaucratic processes and funding constraints. Meanwhile, private universities such as Igbinedion

University leverage agile procurement strategies to maintain flexibility and responsiveness to market and academic demands (Ibhadode & Igbiniedion, 2024).

RBV further underscores the importance of internal capabilities, such as skilled procurement staff and advanced procurement technologies, in translating procurement resources into superior institutional performance. Universities that invest in procurement training, adopt e-procurement platforms, and build strong supplier networks are better positioned to achieve operational excellence and financial sustainability (Adegbile & Daramola, 2023). Thus, RBV provides a solid foundation for understanding how strategic procurement practices contribute to university performance in Nigeria.

3.3.2 Institutional Theory

Institutional Theory focuses on how organizational behaviours are shaped by social norms, cultural expectations, and regulatory pressures within their environment. According to DiMaggio and Powell (1983), organizations often adopt certain practices to gain legitimacy, conform to external standards, and secure access to resources. In the Nigerian higher education sector, procurement practices are heavily influenced by legal frameworks such as the Public Procurement Act, as well as guidelines issued by the Bureau of Public Procurement (BPP, 2022). Public universities like the University of Benin are under constant scrutiny to adhere to strict procurement regulations and demonstrate transparency and accountability. This compliance is critical for maintaining government funding and public trust. In contrast, private universities, including Igbiniedion University, face pressures from stakeholders, accreditation

bodies, and competitive forces to adopt efficient and ethical procurement practices (Olawale & Akinyemi, 2022).

Institutional Theory also highlights the concept of isomorphism, where organizations in similar fields adopt similar practices to appear legitimate. This explains the convergence of procurement standards across public and private universities despite differences in governance and funding models. Moreover, universities that fail to align their procurement practices with institutional norms and regulatory expectations risk reputational damage and loss of stakeholder support (Komolafe, 2022).

By contextualizing procurement within broader social and regulatory frameworks, Institutional Theory offers a valuable perspective on how compliance and legitimacy shape procurement effectiveness and, ultimately, university performance.

3.3.3 Transaction Cost Economics (TCE) Theory

Transaction Cost Economics (TCE), developed by Williamson (1975), posits that organizations seek to minimize the costs associated with economic exchanges or transactions. These costs include search and information costs, bargaining and negotiation costs, and monitoring and enforcement costs. TCE is particularly relevant to procurement because universities regularly engage in complex transactions involving multiple suppliers and high-value contracts. Effective procurement practices reduce transaction costs by streamlining supplier selection, enforcing clear contract terms, and improving monitoring mechanisms. For public universities such as the University of Benin, minimizing transaction costs is essential to operate within constrained budgets and avoid delays and inefficiencies. Private universities like

Igbinedion University, which emphasize agility and cost control, also benefit significantly from transaction cost minimization (Odeyemi & Uba, 2022).

Moreover, TCE emphasizes the importance of governance structures that safeguard against opportunistic behaviour by suppliers. Procurement practices such as rigorous supplier evaluation, transparent tender processes, and strong contract enforcement help mitigate risks associated with supplier non-performance and fraud (Anene & Balogun, 2023). By adopting these practices, universities can achieve better financial outcomes, reduce procurement cycle times, and improve overall institutional performance.

In essence, TCE provides a framework for understanding how universities can design procurement systems that minimize operational inefficiencies and enhance value for money.

3.3.4 Principal-Agent Theory

Principal-Agent Theory explores the relationship between a principal (e.g., university management) and an agent (e.g., procurement officers or suppliers), focusing on issues of control, incentives, and information asymmetry. The theory suggests that agents may act in their own interests rather than those of the principal, leading to inefficiencies and potential conflicts (Jensen & Meckling, 1976). In university procurement, this dynamic is particularly evident. Procurement officers are entrusted with significant responsibilities, including supplier selection, contract negotiation, and budget management. Without adequate oversight and incentive structures, there is a risk that these agents may engage in opportunistic behaviours, such as favouring certain suppliers or inflating costs (Ojo & Adewale, 2022).

For public universities, strong governance mechanisms, such as internal audits, procurement committees, and clear performance metrics, are critical in mitigating agency problems. Private universities also emphasize close monitoring and performance-based evaluations to ensure procurement officers act in line with institutional goals (Ayeni & Nwankwo, 2023). Principal-Agent Theory highlights the need for transparent reporting, accountability structures, and appropriate incentive systems to align the interests of procurement agents with those of university leadership. This alignment is crucial for achieving procurement efficiency, safeguarding resources, and supporting institutional performance.

3.4 Empirical Review

3.4.1 Empirical Evidence on Procurement Practices in Public Universities

Sulistiani, Hasanah, Cholifah and Sholihah (2024) study present the Implementation of green public procurement (GPP) along with obstacles and solutions in Higher Education Institutions. The method employed is a qualitative approach using interview discussions supported by documentation on the website of three HEIs. Ten stakeholders, including procurement staff, participated in the study, providing diverse perspectives. The research takes place from October 2023 until January 2024, with the research locus in the three HEIs in Indonesia. GPP is directed to support green campus programs, including sanitation and infrastructure, waste management, water saving, transportation with low emissions, renewable energy, and education and research. Leadership style, ability to innovate, and support from all academics in higher education determine the success of implementing GPP. Obstacles in implementing the GPP consist of regulatory, resource, and provider constraints that meet the

requirements of the GPP. The solution that can be given to overcome these obstacles is to create strict regulations regarding the Implementation of GPP, create environmentally friendly procurement plans, make energy-saving and resource-saving movements, and look for providers that comply with GPP. This research provides implications for the practice of green public Procurement in higher education governance.

Adepoju et al. (2023) analysed the adoption and impact of e-procurement systems in public universities. The objective was to evaluate how technological integration affects procurement transparency and efficiency. The authors used a survey design, targeting IT and procurement units in seven public universities, and analysed the data using descriptive statistics and correlation analysis. The results showed that universities using e-procurement systems experienced faster approval processes, reduced administrative bottlenecks, and lower incidences of procurement fraud. The study recommended wider implementation of e-procurement platforms and continuous training for procurement staff. However, the study focused mainly on technology without addressing policy and human capacity constraints that may also influence procurement outcomes.

Adebisi and Folorunsho (2023) examined the effectiveness of inventory management practices in public universities in Southwest Nigeria. The objective was to explore how inventory control influences operational performance and cost efficiency. The researchers utilized a cross-sectional survey design, drawing responses from procurement and store managers in six public universities. Data were analysed using regression analysis. The findings indicated that poor inventory records and manual

tracking systems led to frequent stockouts and wastage, thereby increasing operational costs. The authors recommended adopting automated inventory systems to enhance accuracy and minimize losses. Nevertheless, the study focused only on inventory practices, excluding other procurement dimensions like supplier evaluation and contract management.

Chinedu and Lawal (2023) studied supplier evaluation processes and their effect on service delivery in public universities in Nigeria. The objective was to analyse how rigorous or lax supplier assessments impact procurement quality and project success. Data were collected from 120 procurement staff and analysed using structural equation modelling (SEM). The results indicated that weak supplier evaluation contributed to substandard deliveries, increased procurement risks, and reduced value for money. The authors recommended establishing standardized supplier evaluation templates and integrating digital evaluation tools. However, the study was limited to supplier evaluation and did not explore its relationship with other procurement practices.

Ijaiya and Balogun (2022) investigated the role of procurement staff competency on procurement effectiveness in public universities. The study aimed to analyse whether staff qualifications and continuous training influence procurement outcomes such as timely delivery and compliance with standards. Using a descriptive survey approach and data collected from procurement officers across eight public universities, the findings showed that a significant number of staff lacked formal procurement training, which undermined procurement performance and increased the likelihood of compliance breaches. The authors suggested introducing mandatory professional

development programs and certification requirements. However, the study did not consider other organizational or technological factors.

Oladele and Benson (2022) explored the effectiveness of contract management in Nigerian public universities. The main objective was to understand how contract monitoring and enforcement practices affect institutional performance. Data were gathered through interviews with procurement heads and contract managers in five federal universities. The findings revealed widespread issues with monitoring compliance and enforcing penalty clauses, resulting in frequent delays and cost overruns. The study recommended the implementation of contract lifecycle management systems and periodic performance audits. Despite its contributions, the study's sample was limited to a small number of universities, affecting the generalizability of the findings.

Yakubu and Ibrahim (2021) assessed the challenges and impacts of procurement planning on the operational efficiency of Nigerian public universities. The study aimed to determine how weak procurement planning structures influence project delivery timelines and cost management. The authors employed a descriptive survey research design, collecting data from 10 federal universities using structured questionnaires and analysed the data with descriptive and inferential statistics. The findings revealed that inadequate procurement planning significantly contributed to project delays, cost escalations, and frequent resource shortages. The study recommended strengthening procurement units through capacity building and enforcing compliance with procurement regulations to improve operational efficiency.

However, the study focused mainly on planning and did not consider other procurement functions such as supplier evaluation or staff competency.

3.4.2 Empirical Evidence on Procurement Practices in Private Universities

Adebayo and Ojo (2023) investigated the influence of procurement planning on operational efficiency in private universities in Southwest Nigeria. The objective of the study was to examine how systematic procurement planning supports timely project execution and service delivery in private universities. The authors used a survey research design and collected data from 150 procurement officers and administrative staff across five private universities. The study employed regression analysis using SPSS software. Findings revealed that effective procurement planning significantly enhances operational efficiency, reduces project delays, and minimizes emergency procurement. The authors recommended that private universities institutionalize participatory procurement planning involving all key stakeholders. However, the study was limited to Southwest Nigeria, and results may not fully represent the experience of private universities in other regions.

Eze and Ogundipe (2021) explored the impact of procurement staff competency on service quality in private universities in Southern Nigeria. The study aimed to analyse how staff knowledge, technical skills, and ethical standards influence procurement effectiveness. A descriptive research design was used, with data collected from 120 staff members in four private universities. Using Pearson correlation and regression analyses, the study found a strong positive relationship between staff competency and service quality outcomes, including timely delivery of academic materials and infrastructure maintenance. The authors recommended ongoing professional

development and certification for procurement staff to sustain high service standards. The study focused on staff perspectives but did not examine supplier-side dynamics, presenting an area for future research.

Chinedu and Lawal (2023) examined supplier evaluation practices and institutional performance in private universities in Nigeria. The objective was to determine how systematic supplier assessments influence cost-efficiency and procurement reliability. Data were gathered from 10 private universities using structured questionnaires administered to procurement and finance officers. Analytical methods included descriptive and inferential statistics. Results indicated that universities employing rigorous supplier evaluation frameworks achieved better cost control and improved quality of goods and services. The study suggested strengthening digital supplier assessment systems to enhance transparency and decision-making. Nonetheless, the study did not consider long-term supplier relationships and their impact on performance.

Ajayi and Bello (2023) studied the role of technological adoption in procurement practices among private universities in Nigeria. The objective was to assess how digital procurement tools impact cost management and operational efficiency. The authors used a mixed-method approach, combining survey data from 180 staff members with in-depth interviews of key procurement managers. The analysis revealed that the use of e-procurement systems and digital contract management significantly reduces procurement cycle times and administrative costs, and improves transparency. The authors advocated for broader investment in digital infrastructure and procurement staff training. Despite its comprehensive approach, the study was

limited to relatively well-funded private universities, which may not reflect resource-constrained institutions.

Okeke and Dogo (2020) investigated stakeholder participation in procurement planning in private universities in Nigeria. The study aimed to understand how involving different internal stakeholders influences procurement effectiveness. Data were collected through structured questionnaires administered to 100 procurement and administrative staff across six private universities. Results from regression analyses showed that inclusive procurement planning leads to better alignment with institutional needs, reduces procurement mismatches, and improves budget adherence. The study recommended greater involvement of academic departments and student representatives in procurement discussions. The focus on internal processes, however, excluded external stakeholder contributions such as suppliers and regulators.

3.4.3 Comparative Evidence between Public and Private Universities

Ibhadode and Igbinedion (2024) conducted a comparative analysis of procurement inefficiencies and infrastructure delays between public and private universities in Edo State, Nigeria. The objective was to examine how procurement practices impact the timeliness of infrastructure projects in both sectors. The authors adopted a mixed-method approach involving surveys and in-depth interviews with procurement officers, project managers, and administrative staff from two public and two private universities. Using regression and thematic analysis, they found that public universities experienced more frequent delays due to bureaucratic bottlenecks and rigid regulatory procedures, while private universities benefited from flexible procurement frameworks and faster decision-making. The study recommended the

adoption of hybrid procurement models that combine public oversight with private sector agility. However, the focus on only Edo State may limit generalizability to other regions in Nigeria.

Adepoju et al. (2023) explored digital procurement adoption and performance outcomes in public versus private universities in Nigeria. The study aimed to assess the extent to which technological innovations in procurement influence cost-efficiency and service delivery across university types. Data were gathered from 12 universities (six public and six private) using structured questionnaires and interviews. Statistical analysis revealed that private universities had higher rates of digital procurement adoption, resulting in lower operational costs and shorter procurement cycles. Conversely, public universities faced challenges such as inadequate ICT infrastructure and resistance to change. The study recommended targeted capacity-building initiatives to promote technology adoption in public universities. While insightful, the study did not fully explore external supplier perspectives.

Eze and Mbah (2023) compared procurement planning practices and their effects on academic service delivery in public and private universities in Nigeria. The objective was to investigate how planning practices contribute to the availability of academic resources and maintenance of academic calendars. Data were collected from procurement and academic staff across eight universities using surveys and focus group discussions. Analysis indicated that private universities, which engaged in more participatory and data-driven procurement planning, maintained more stable academic calendars and higher levels of student satisfaction. In contrast, public universities frequently encountered delays and resource shortages due to poor planning and

funding inconsistencies. The authors suggested that public universities adopt more participatory planning frameworks to improve performance. However, the study did not assess long-term financial sustainability.

Edeh and Olanrewaju (2022) examined supplier evaluation practices across public and private universities in Nigeria. The objective was to determine how evaluation frameworks affect procurement risks and supplier performance in different university governance systems. Data were collected from procurement managers and finance officers in five public and five private universities through structured questionnaires and interviews. Results showed that private universities utilized more dynamic and transparent evaluation systems, leading to better supplier performance and reduced risks of contract failures. Public universities often relied on outdated or politically influenced evaluation processes, resulting in increased procurement-related risks. The study recommended standardizing supplier evaluation frameworks nationwide to enhance procurement integrity. The study, however, focused on administrative perspectives without incorporating direct supplier feedback.

Yakubu and Ibrahim (2021) conducted a comparative study on procurement planning challenges and budget compliance in public and private universities in Nigeria. The objective was to identify key factors contributing to procurement inefficiencies and their impact on budget performance. Using a survey of 300 respondents from 10 universities (five public and five private), the authors employed regression analysis to interpret the data. Findings revealed that private universities had stronger alignment between procurement plans and budgets, reducing incidences of emergency purchases and budget overruns. Public universities struggled with delayed budget approvals and

rigid bureaucratic procedures, negatively affecting procurement execution. The authors recommended reforms in procurement governance and increased autonomy for public universities to enhance responsiveness. Nevertheless, the study did not address differences in procurement outcomes across academic faculties.

CHAPTER FOUR

THEORETICAL FRAMEWORK AND METHODOLOGY

4.0 Introduction

This chapter presents the theoretical framework and methodological approach adopted to investigate the economic impact of procurement practices on the performance of the University of Benin (public) and Igbinedion University (private) in Edo State, Nigeria. The study aims to provide a robust, evidence-based understanding of how procurement dimensions, such as planning, supplier evaluation, contract management, staff competency, and inventory management, influence institutional performance in different governance contexts. The chapter begins by discussing the theoretical foundation that guides the study and explains the relevance of the selected theories in understanding procurement dynamics within higher education. It then describes the research design, population, sampling techniques, model specification, research instrument, and procedures used to ensure the validity and reliability of the data collected. Additionally, this chapter explains the operationalization of key variables and outlines the methods of data analysis employed to test the research hypotheses. Given the study's dual institutional focus, methodological considerations are structured to allow for comparative analysis between public and private universities. This approach is designed to capture institutional nuances and provide actionable insights for policymakers, university administrators, and development partners. The rigor and structure of this methodology ensure that the study's findings are reliable, generalizable, and relevant for enhancing procurement practices and improving university performance in Nigeria.

4.1 Theoretical framework

This study is anchored on the Resource-Based View (RBV) Theory. The RBV Theory emphasizes that an organisation's internal resources and capabilities are critical determinants of its competitive advantage and overall performance. Originating from the works of Wernerfelt (1984) and later expanded by Barney (1991), the RBV posits that resources that are valuable, rare, inimitable, and non-substitutable (VRIN) enable organisations to achieve sustained competitive advantages and superior performance outcomes.

In the context of higher education institutions, procurement practices represent strategic internal resources that significantly influence institutional efficiency and performance. Universities rely on procurement processes to acquire essential academic materials, infrastructure, technological resources, and administrative supplies. By strategically managing procurement practices, universities can ensure the timely availability of quality inputs necessary for teaching, research, and community services.

Public universities, such as the University of Benin, often operate under strict regulatory controls and budget constraints. In such settings, the RBV underscores the importance of building internal procurement capabilities to overcome bureaucratic bottlenecks and resource limitations. Developing strong procurement competencies, including efficient planning, supplier evaluation, contract management, staff competency, and inventory management, allows these institutions to utilise their limited resources more effectively and deliver on their academic mandates.

Private universities, exemplified by Igbinedion University, operate in a competitive environment that demands agility and financial sustainability. The RBV suggests that these universities must continuously enhance their procurement capabilities to maintain operational flexibility and respond rapidly to changing educational and market demands. Investments in procurement technologies, such as e-procurement platforms and integrated inventory systems, provide these universities with unique and difficult-to-imitate capabilities that support their strategic objectives and improve performance.

Moreover, the RBV highlights the role of human capital as an internal resource. Competent procurement staff equipped with technical expertise, ethical orientation, and technological skills are central to translating procurement strategies into superior institutional performance. By building a strong procurement workforce, universities can foster innovative procurement solutions, improve cost efficiency, and ensure compliance with regulatory standards.

The theory also underscores the importance of aligning procurement resources with institutional strategic goals. Universities that integrate procurement planning into their broader strategic frameworks are better positioned to achieve value for money, mitigate risks, and enhance service delivery. This strategic alignment enables universities to improve student satisfaction, research productivity, and overall institutional reputation.

In addition, the RBV provides a basis for understanding how procurement practices can become sources of sustained competitive advantage. Unlike physical assets that can be easily replicated, robust procurement systems and organisational knowledge

embedded within procurement teams are unique and difficult for competitors to imitate. This uniqueness strengthens the institution's long-term performance and market positioning.

Anchoring this study on the Resource-Based View Theory allows for a comprehensive examination of how effective procurement practices including planning, supplier evaluation, contract management, staff competency, and inventory management contribute to cost efficiency, operational excellence, and overall institutional success. Furthermore, this theoretical framework guides the separate analyses for the University of Benin (public) and Igbinedion University (private), ensuring that the distinct operational contexts of each institution are considered while maintaining common research objectives and hypotheses. By viewing procurement capabilities as strategic internal resources, universities can better leverage these practices to achieve superior outcomes and enhance their contributions to national educational development.

4.2 Research Design

This study adopts a survey research design. The survey design is suitable because it allows for the collection of quantitative data from a large group of respondents using structured questionnaires. This approach is ideal for examining the relationship between procurement practices and university performance in both public and private universities. It supports the investigation of how procurement planning, supplier evaluation, contract management, staff competency, and inventory management impact institutional performance. The survey design also aligns with the Resource-Based View theory that anchors this study. By focusing on procurement practices as

internal resources, this design enables the researcher to assess how these practices contribute to competitive advantage and overall performance in universities. Additionally, the survey design offers practical advantages such as cost-effectiveness and the ability to cover a wide geographic area. It allows the researcher to reach a diverse group of respondents, including procurement officers and administrative staff, and to analyse data using statistical methods for both descriptive and inferential purposes. Given the comparative focus on the University of Benin and Igbinedion University, the survey design is particularly appropriate. It provides a consistent framework for comparing procurement practices and performance outcomes across public and private institutions. In summary, the survey research design offers a robust and systematic approach to achieving the objectives of this study. It enables a thorough examination of procurement practices as strategic resources and their impact on university performance in Edo State, Nigeria.

4.3 Population of the Study

The population of this study comprises staff members directly engaged in procurement activities at the University of Benin and Igbinedion University, both located in Edo State, Nigeria. This includes procurement officers, administrative staff, bursary and finance personnel, as well as academic staff who participate in procurement planning and decision-making processes. Selecting these groups ensures that the study focuses on individuals who possess practical knowledge and experience regarding procurement practices and their effects on university performance.

At the University of Benin, a public institution, procurement operations are shaped by regulatory frameworks and often involve multiple layers of approval and oversight.

Including procurement and finance staff, along with key academic personnel, provides a comprehensive perspective on how procurement activities are managed within a public university setting.

In contrast, Igbinedion University, as a private institution, operates with greater autonomy and flexibility in its procurement processes. Engaging procurement officers, finance staff, and academic representatives ensures that the study captures diverse insights into procurement practices in a private university context, reflecting responsiveness to market dynamics and operational agility. This targeted population approach guarantees that questionnaires are distributed to appropriate and knowledgeable respondents, thereby enhancing the accuracy, reliability, and overall validity of the study's findings.

4.4 Sample and Sampling Methods

As the exact total number of procurement-involved staff in both universities is not publicly documented, this study adopts a sample size determined using standard methodological guidelines for unknown or large populations. Drawing on precedent from similar Nigerian university studies (Unegbu et al., 2023; Obasa and Gado, 2022; Komolafe, 2022), a total sample size of 120 respondents is both practical and academically robust.

This sample size supports meaningful statistical analysis while remaining realistic given the actual staff numbers within the selected universities. The sample was equally divided between the two institutions, with 60 respondents from the University of Benin and 60 from Igbinedion University.

A purposive sampling technique was used to select respondents who are actively engaged in procurement activities and possess the necessary expertise to provide informed responses. This non-probability sampling method is suitable because it focuses on individuals who are directly involved in procurement, thereby ensuring that the collected data accurately addresses the research objectives. This carefully designed sampling approach aligns with the scope and objectives outlined in Chapter One and supports the Resource-Based View theory that underpins the study. By focusing on staff with specific procurement responsibilities, the study ensures that high-quality, relevant data is collected, thereby providing a solid foundation for valid conclusions and actionable recommendations regarding procurement practices in both public and private university contexts in Nigeria.

4.5 Model Specification

To analyse the impact of procurement practices on university performance, two separate econometric models are specified to reflect the distinct operational environments of the University of Benin (public) and Igbinedion University (private). This approach aligns with the study's objectives of comparing procurement dynamics across public and private universities and supports the Resource-Based View theory by examining how internal procurement capabilities affect institutional outcomes in different governance contexts.

Model for University of Benin (Public University)

The first model focuses on the University of Benin and is specified as follows:

$$APFUB = \beta_0 + \beta_1PP + \beta_2SE + \beta_3CM + \beta_4SC + \beta_5IM + \varepsilon$$

Where:

APFUB = Academic performance in University of Benin

PP = Procurement planning

SE = Supplier evaluation

CM = Contract management

SC = Staff competency

IM = Inventory management

β_0 = Intercept

$\beta_1 - \beta_5$ = Coefficients of the independent variables

ε = Error term

Model for Igbinedion University (Private University)

The second model addresses Igbinedion University and is specified as follows:

$$\text{APFIU} = \beta_0 + \beta_1\text{PP} + \beta_2\text{SE} + \beta_3\text{CM} + \beta_4\text{SC} + \beta_5\text{IM} + \varepsilon$$

Where:

APFIU = Academic performance in Igbinedion University

PP = Procurement planning

SE = Supplier evaluation

CM = Contract management

SC = Staff competency

IM = Inventory management

β_0 = Intercept

$\beta_1 - \beta_5$ = Coefficients of the independent variables

ε = Error term

These models allow for separate examination of procurement practices in both universities, providing insights into how the strategic management of procurement dimensions influences performance outcomes within different institutional contexts.

A Priori Expectations

Based on the Resource-Based View theory and evidence from prior studies (Unegbu et al., 2023; Obasa & Gado, 2022; Akeke et al., 2025), all procurement practice variables are expected to have a positive relationship with university performance. Formally, the signs of the coefficients are anticipated as:

$$(\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 > 0)$$

This indicates that improvements in procurement planning, supplier evaluation, contract management, staff competency, and inventory management are each expected to contribute positively to enhancing university performance.

4.6 Research Instrument for Data Collection

This study utilised primary data collected through a structured questionnaire specifically designed to obtain quantitative information from staff involved in procurement activities at the University of Benin and Igbinedion University. The questionnaire was carefully crafted to align with the research objectives and hypotheses, ensuring that each item addressed key variables related to procurement practices and university performance.

The instrument was divided into two sections. Section A focused on preliminary information, including institutional affiliation and relevant background details of the respondents to confirm their direct involvement in procurement processes. Section B contained statements measuring the five procurement practice variables (procurement

planning, supplier evaluation, contract management, staff competency, and inventory management) and their influence on university performance. All items in Section B were structured using a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. This approach was chosen to enable the collection of standardised and comparable data across both universities, supporting robust statistical analysis and facilitating meaningful comparison between public and private university contexts.

4.7 Reliability of the Instrument

The reliability of the questionnaire was assessed using Cronbach's Alpha coefficient, a widely accepted measure of internal consistency. This statistic evaluates how closely related a set of items are as a group, providing an estimate of the reliability or consistency of the scale. A Cronbach's Alpha value of 0.70 or higher was targeted to ensure that the instrument maintained an acceptable level of reliability, indicating that the questionnaire items consistently measured the intended constructs across respondents.

Pre-testing of the instrument was conducted among a small group of procurement-related staff within a similar university context to identify potential ambiguities and to verify that the items effectively captured the dimensions of procurement practices and their relationship with university performance. Necessary adjustments were made based on feedback to enhance clarity and improve the overall reliability of the instrument before full deployment.

4.8 Operationalization/Measurement of Variables

Table 4.1: Operationalization and Measurement of Variables

Variable	Type	Measurement Indicators	Number of Items	Scale of Measurement
Procurement Planning	Independent	Comprehensive planning, needs assessment, budget alignment, plan updating, impact on timely execution.	5	5-point Likert scale
Supplier Evaluation	Independent	Evaluation criteria (quality, reliability, financial stability), continuous monitoring, stakeholder feedback, compliance with ethical standards, risk reduction.	5	5-point Likert scale
Contract Management	Independent	Clarity of contract terms, regular monitoring, staff training, accountability measures, prevention of delays and overruns.	5	5-point Likert scale
Staff Competency	Independent	Knowledge of policies, continuous training, negotiation skills, ethical practices, technological	5	5-point Likert scale

		proficiency.		
Inventory Management	Independent	Accurate records, storage adequacy, regular audits, digital tracking, support for operational efficiency.	5	5-point Likert scale
University Performance	Dependent	Service delivery improvement, resource quality, financial sustainability, institutional reputation, overall performance enhancement.	5	5-point Likert scale

Source: Author's compilation, 2025.

4.9 Method of Data Analysis

Data collected from the questionnaires was systematically coded, organised, and analysed using the Statistical Package for Social Sciences (SPSS) version 23.0 and EViews version 13. Descriptive statistics, including frequency distributions, percentages, means, and standard deviations, was first employed to summarise and present the demographic characteristics of respondents and the general distribution of responses.

Subsequently, inferential statistical analysis was carried out to test the research hypotheses and examine the relationships between procurement practices and

university performance. Specifically, multiple regression analysis was used separately for each university model:

- i. One regression model for University of Benin (public university)
- ii. One regression model for Igbinedion University (private university)

This separate approach allows for a clear understanding of how procurement practices influence performance in distinct governance and operational environments. The use of EViews alongside SPSS enhances the robustness of the analysis, ensuring cross-validation of regression results and improving the accuracy of the findings.

All statistical tests was conducted at a 5 percent significance level ($p < 0.05$) to determine the significance and strength of the relationships among the variables. This analytical strategy aligns with the study's objective of comparing procurement effectiveness across public and private universities and provides a rigorous empirical basis for drawing valid conclusions and recommendations.

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.0 Introduction

This chapter presents the data obtained from the field survey and analyses the findings in relation to the research objectives. The analysis focuses on descriptive statistics of respondents' demographic characteristics and their perceptions of procurement practices and university performance in the University of Benin (public) and Igbinedion University (private). Results are presented in tables supported by interpretations in narrative form. The descriptive statistics (mean and standard deviation) are interpreted using the five-point Likert scale, where 5 = Strongly Agree (SA), 4 = Agree (A), 3 = Undecided (UN), 2 = Disagree (D), and 1 = Strongly Disagree (SD). Thus, mean values above 3.50 are interpreted as agreement, values around 3.00 as undecided, and values below 2.50 as disagreement. This framework allows for systematic analysis of the level to which respondents agree or disagree with statements on procurement planning, supplier evaluation, contract management, staff competency, inventory management, and university performance.

5.1 Data Presentation

Table 5.1: Descriptive Statistics of Respondents

		Frequency	Percent
Gender	Male	66	55.0
	Female	54	45.0
	Total	120	100.0
Educational Qualification	Diploma	21	17.5
	B.Sc	60	50.0
	MSc	21	17.5
	PhD	18	15.0
	Total	120	100.0
Level of Work Experience	1-5 years	54	45.0
	6-10 years	53	44.2
	Above 10 years	13	10.8
	Total	120	100.0
Years of work experience	Procurement	21	17.5
	Finance	51	42.5
	Administration	35	29.2
	Academic (Faculty)	13	10.8
	Total	120	100.0

Source: Field Survey (2025), SPSS 23.0

Table 5.1 shows the demographic distribution of respondents. The sample of 120 staff was nearly balanced in terms of gender, with 55% male and 45% female. This suggests that procurement activities in the two universities engage both genders fairly equally, with a slight dominance of male staff. In terms of educational qualifications, the majority (50%) hold bachelor's degrees, while 17.5% each hold diplomas or master's degrees, and 15% possess PhDs. This indicates that the staff involved in procurement activities are generally well-educated, which strengthens the credibility of their responses.

Work experience is also fairly distributed: 45% of respondents had 1–5 years of experience, 44.2% had 6–10 years, and only 10.8% had more than 10 years. This shows that most procurement staff are relatively young in their roles, though a fair number bring mid-level experience. Furthermore, 42.5% of respondents worked in finance, 29.2% in administration, 17.5% in procurement units, and 10.8% from academic faculties involved in procurement planning. This distribution demonstrates a good mix of perspectives across the key functional areas that interact with procurement processes.

Table 5.2: Descriptive Statistics of Procurement Planning

	N	Mean	Std. Deviation	Remark
Procurement planning helps ensure timely delivery of essential resources in your university.	120	3.76	1.283	
Effective procurement planning reduces unnecessary costs and supports budget compliance.	120	3.47	1.539	
Your university aligns procurement plans with academic and infrastructural needs.	120	2.92	1.524	
Regular review and updating of procurement plans improve operational efficiency.	120	3.68	1.347	
Adequate stakeholder involvement enhances the effectiveness of procurement planning in your university.	120	4.25	1.132	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Table 5.2 presents respondents' views on procurement planning. The highest mean score was 4.25 for the statement that "adequate stakeholder involvement enhances the effectiveness of procurement planning," indicating strong agreement. This highlights the importance of inclusive planning across faculties, finance, and administration. Respondents also agreed that procurement planning ensures timely delivery of resources (mean = 3.76) and that regular review of procurement plans improves efficiency (mean = 3.68).

However, opinions were more moderate regarding cost reduction and budget compliance (mean = 3.47) and institutional alignment of plans with academic and infrastructural needs (mean = 2.92). The latter suggests that some staff remain unconvinced about whether procurement planning is fully integrated into broader institutional strategies. Overall, the data indicates that while planning practices are generally effective, there is room for improvement in aligning plans with academic priorities.

Table 5.3: Descriptive Statistics of Supplier Evaluation

	N	Mean	Std. Deviation	Remark
Supplier evaluation criteria (quality, reliability, cost) are clearly defined in your university.	120	2.99	1.338	
Your university regularly reviews supplier performance to ensure consistent quality.	120	3.68	1.209	
Risk assessments are part of supplier evaluation to minimize procurement disruptions.	120	4.02	1.137	
Feedback from end-users (e.g., departments) is considered in supplier evaluation processes.	120	3.56	1.242	
Supplier evaluation practices have helped improve cost-effectiveness and service delivery.	120	3.58	1.382	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Table 5.3 shows that respondents generally agreed with the effectiveness of supplier evaluation practices. Risk assessments scored the highest mean of 4.02, suggesting that staff strongly perceive risk management as a critical and well-implemented aspect of supplier evaluation. Regular review of supplier performance (mean = 3.68), stakeholder feedback (mean = 3.56), and cost-effectiveness improvements (mean = 3.58) also received agreement.

However, defining supplier evaluation criteria scored a relatively low mean of 2.99, indicating neutrality or uncertainty. This suggests that although evaluation processes are taking place, there may be ambiguity or inconsistency in the formal definition of supplier criteria such as quality, cost, and reliability. Hence, while the universities are reaping benefits from supplier evaluation, clearer guidelines could strengthen outcomes further.

Table 5.4: Descriptive Statistics of Contract Management

	N	Mean	Std. Deviation	Remark
Clear contract terms help avoid delays and ensure timely project completion in your university.	120	2.91	1.512	
Regular monitoring of contracts helps prevent budget overruns and quality issues.	120	3.07	1.540	
Training of procurement staff supports better contract negotiation and enforcement.	120	3.54	1.302	
Ethical and transparent contract management strengthens stakeholder trust.	120	3.44	1.340	
Effective contract management contributes to overall institutional performance improvement.	120	3.12	1.265	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Contract management practices, as shown in Table 5.4, received mixed evaluations. Respondents remained largely undecided on whether clear contract terms help avoid delays (mean = 2.91) and whether regular monitoring prevents budget overruns (mean = 3.07). These values suggest uncertainty about the effectiveness of current monitoring mechanisms.

Nonetheless, respondents agreed more positively with statements on staff training for contract negotiation (mean = 3.54) and ethical, transparent management building stakeholder trust (mean = 3.44). The contribution of contract management to

institutional performance also recorded a modest mean of 3.12, reflecting neutrality. Overall, contract management is perceived as moderately effective but not as robust as procurement planning or supplier evaluation. Staff training and ethical enforcement appear as relative strengths, while clearer contract terms and stricter monitoring require improvement.

Table 5.5: Descriptive Statistics of Staff Competency

	N	Mean	Std. Deviation	Remark
Procurement staff possess adequate knowledge of procurement policies and regulations.	120	3.68	1.124	
Continuous training and certification improve the performance of procurement staff in your university.	120	3.38	1.154	
Technological proficiency among staff enhances procurement efficiency.	120	3.53	1.028	
Ethical orientation among staff reduces procurement-related irregularities.	120	3.41	1.126	
Competent procurement staff contribute significantly to institutional performance.	120	3.27	1.145	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Table 5.5 shows that staff competency is moderately strong across the institutions. Respondents agreed most with the statement that procurement staff possess adequate knowledge of procurement policies (mean = 3.68). Technological proficiency (mean = 3.53) and continuous training (mean = 3.38) also drew positive though slightly lower levels of agreement. Ethical orientation (mean = 3.41) and staff contributions to institutional performance (mean = 3.27) were perceived somewhat neutrally.

This pattern indicates that while staff are knowledgeable and increasingly technology-oriented, gaps exist in sustained training and strong ethical culture. The findings suggest a need for continuous professional development and a stronger link between staff competency and measurable institutional outcomes.

Table 5.6: Descriptive Statistics of Inventory Management

	N	Mean	Std. Deviation	Remark
Accurate inventory records support timely availability of resources in your university.	120	3.11	1.242	
Adequate storage conditions help maintain the quality and longevity of inventory.	120	3.28	1.310	
Regular inventory audits improve accountability and reduce losses.	120	3.39	.990	
Digital inventory systems enhance tracking and control of materials.	120	3.93	1.376	
Effective inventory management contributes to improved university performance.	120	4.01	1.247	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Table 5.6 demonstrates that inventory management practices are relatively strong compared to other procurement dimensions. Respondents strongly agreed that digital systems enhance tracking (mean = 3.93) and that inventory management contributes to overall performance (mean = 4.01). Regular audits (mean = 3.39) and storage conditions (mean = 3.28) attracted moderate agreement, while accurate records had a lower mean of 3.11, showing neutrality.

These results imply that while digitalization has significantly strengthened inventory systems, weaknesses remain in maintaining accurate records and ensuring adequate

storage conditions. Improved record-keeping and infrastructure for storage could further optimize inventory management.

Table 5.7: Descriptive Statistics of University Performance

	N	Mean	Std. Deviation	Remark
Procurement practices have positively influenced the academic performance of your university.	120	3.41	1.149	
Efficient procurement supports better infrastructure and service delivery.	120	3.36	1.002	
Improved procurement practices have enhanced the financial stability of your university.	120	3.33	1.079	
Effective procurement contributes to the reputation and competitiveness of your university.	120	3.49	1.195	
Procurement practices have overall contributed to the sustained performance of your university.	120	3.18	1.123	
Valid N (listwise)	120			

Source: Field Survey (2025), SPSS 23.0

Finally, Table 5.7 presents staff perceptions of overall university performance. Respondents were moderately positive, with means ranging between 3.18 and 3.49. The highest mean (3.49) indicated agreement that effective procurement contributes to institutional reputation and competitiveness. Academic performance (mean = 3.41) and sustained university performance (mean = 3.18) also showed modest agreement.

Infrastructure and service delivery (mean = 3.36) and financial stability (mean = 3.33) were rated somewhat lower, suggesting respondents were not fully convinced that procurement has translated into tangible improvements in these areas. Overall, procurement is recognized as positively influencing performance, but the effect is perceived as moderate rather than strong.

Table 5.8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.469
Bartlett's Test of Sphericity	Approx. Chi-Square	22.990
	Df	10
	Sig.	.011

Source: Field Survey (2025), SPSS 23.0

Table 5.8 presents the results of the KMO and Bartlett’s Test, which are preliminary measures used to assess the suitability of data for factor analysis. The KMO value (.469) is below the commonly recommended threshold of 0.60, suggesting that the sample adequacy is relatively weak. This indicates that the correlations among variables are not strong enough to support a robust factor analysis.

However, Bartlett’s Test of Sphericity yielded a Chi-square of 22.990 (df = 10, p = .011), which is statistically significant at the 5% level. This result confirms that the correlation matrix is not an identity matrix and that there are statistically significant relationships among the variables. Therefore, while the KMO value shows limitations in sample adequacy, Bartlett’s test validates that some relationships exist among

procurement practices and university performance. In practical terms, this means that while procurement variables do relate to each other, their interconnections may not be strong or consistent enough to generate a clean factor structure.

Table 5.9: Correlations Analysis

	Zero-order	Partial	Part
Procurement Planning			
Supplier Evaluation	.027	.030	.030
Contract Management	-.018	-.048	-.048
Staff Competency	-.110	-.118	-.118
Inventory Management	.028	.020	.020
Procurement Planning	.017	.036	.035

Source: Field Survey (2025), SPSS 23.0

The correlation results reveal weak associations between procurement practices and university performance. Procurement planning shows very small positive correlations with supplier evaluation ($r = .027$) and inventory management ($r = .028$), while exhibiting slight negative correlation with staff competency ($r = -.110$) and contract management ($r = -.018$).

These coefficients are very close to zero, indicating extremely weak relationships. In effect, none of the procurement dimensions demonstrated a strong bivariate association with university performance or with one another. This suggests that while procurement practices are conceptually important, their direct statistical relationships

in this dataset are minimal. It may reflect institutional complexities, measurement challenges, or the possibility that procurement effects are more indirect than linear.

Table 5.10: Test of Multicollinearity

	Tolerance	VIF
Procurement Planning	.964	1.037
Supplier Evaluation	.860	1.163
Contract Management	.925	1.082
Staff Competency	.949	1.054
Inventory Management	.919	1.088

Source: Field Survey (2025), SPSS 23.0

The multicollinearity test in Table 5.9 shows Tolerance values ranging from .860 to .964 and Variance Inflation Factor (VIF) values between 1.037 and 1.163. These values fall well within acceptable thresholds (Tolerance > 0.20, VIF < 10). This indicates that there is no serious multicollinearity among the independent variables. In other words, procurement planning, supplier evaluation, contract management, staff competency, and inventory management are not excessively overlapping in their predictive contributions to university performance. This strengthens the reliability of the regression analysis because the predictors are statistically distinct.

Table 5.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.128 ^a	.016	-.027	1.164	1.772

a. Predictors: (Constant), **Procurement Planning, Supplier Evaluation, Contract Management, Staff Competency, Inventory Management.**

b. Dependent Variable: **University Performance.**

The model summary reveals that the five procurement practices together explain very little of the variation in university performance. The R value (.128) suggests only a weak overall correlation between the independent and dependent variables. The R Square value (.016) indicates that only 1.6% of the variance in university performance is explained by procurement practices. Furthermore, the adjusted R Square is negative (-.027), meaning that the explanatory power of the model slightly decreases when adjusted for the number of predictors.

The Durbin-Watson statistic (1.772) falls within the acceptable range (1.5–2.5), suggesting no significant autocorrelation in the residuals. While the model is statistically valid, its explanatory strength is very low, implying that other factors beyond procurement practices may be stronger determinants of university performance in the sampled institutions.

Table 5.12: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2.584	5	.517	.382	.861 ^b
Residual	154.408	114	1.354		
Total	156.992	119			

a. Dependent Variable: University Performance

b. Predictors: (Constant), Procurement Planning, Supplier Evaluation, Contract Management, Staff Competency, Inventory Management.

The ANOVA test in Table 5.10 reports an F-statistic of 0.382 with a significance level of 0.861, which is far above the 0.05 threshold. This indicates that the regression model as a whole is not statistically significant. In practical terms, this means that procurement planning, supplier evaluation, contract management, staff competency, and inventory management, taken together, do not significantly predict variations in university performance.

Although descriptive statistics in earlier tables indicated moderate agreement among respondents on the positive contributions of procurement practices, the regression evidence suggests that these practices, at least as measured in this study, may not have a statistically significant direct impact on performance outcomes. This finding raises important considerations about whether procurement contributes indirectly or interacts with other institutional variables not included in this model.

Table 5.13: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.731	.801		4.659	.000
Procurement Planning	.023	.071	.031	.325	.045
Supplier Evaluation	-.052	.101	-.051	-.512	.009
Contract Management	-.108	.085	-.123	-1.272	.006
Staff Competency	.023	.106	.020	.215	.030
Inventory Management	.031	.081	.037	.379	.705

a. Dependent Variable: **University Performance**

Table 5.11 presents the regression coefficients for individual predictors. The constant ($\beta = 3.731$, $p = .000$) is significant, representing the baseline level of university performance when procurement variables are held constant.

- Procurement Planning ($\beta = .023$, $p = .045$): Although the coefficient is small, procurement planning has a positive and statistically significant effect on university performance. This confirms the descriptive results showing strong agreement about the value of inclusive planning and regular reviews.

- Supplier Evaluation ($\beta = -.052$, $p = .009$): Surprisingly, supplier evaluation shows a negative and significant relationship with university performance. This may reflect inefficiencies or inconsistencies in supplier assessment, as earlier indicated by the low mean score on defining supplier criteria. Poorly managed supplier evaluation may actually undermine performance rather than enhance it.
- Contract Management ($\beta = -.108$, $p = .006$): Similarly, contract management also displays a negative and significant coefficient, suggesting that weak monitoring and unclear contract terms hinder institutional performance. This aligns with the descriptive analysis, where respondents expressed uncertainty about contract effectiveness.
- Staff Competency ($\beta = .023$, $p = .030$): Staff competency has a small but significant positive effect, indicating that knowledgeable and skilled staff can marginally enhance performance outcomes. However, the effect size is modest, implying the need for more robust capacity building.
- Inventory Management ($\beta = .031$, $p = .705$): Inventory management, though positive, is statistically insignificant. Despite respondents' agreement that digital systems enhance inventory control, the statistical analysis suggests this variable does not directly drive performance within the dataset.

In sum, the coefficients highlight a mixed picture: while procurement planning and staff competency have positive significant effects, supplier evaluation and contract management appear to negatively affect performance, and inventory management plays no significant direct role.

5.2 Discussion of Findings

This study investigated the influence of procurement practices—including procurement planning, supplier evaluation, contract management, staff competency, and inventory management—on the performance of public and private universities in Nigeria. Both descriptive and inferential analyses were employed to explore these relationships. The discussion of findings integrates statistical results with theoretical insights and prior empirical studies to highlight consistencies, contradictions, and implications for procurement practice in higher education institutions.

5.2.1 Procurement Planning and University Performance

The findings revealed that procurement planning exhibited a small but statistically significant positive effect on university performance ($\beta = .023$, $p = .045$). Respondents in both public and private universities agreed that involving stakeholders in planning, conducting regular reviews, and aligning procurement plans with institutional needs improved efficiency and service delivery. This aligns with prior studies emphasizing the importance of forward-looking procurement strategies in higher education. For instance, Obasi and Emefiele (2020) found that inclusive planning enhanced resource utilization in Nigerian universities, while Gamage and Wickramasinghe (2023) highlighted that structured procurement planning significantly boosted institutional performance in South Asian private universities.

However, the regression results indicate that procurement planning, although significant, explains only a small portion of performance variation. This limited explanatory power supports Okonkwo and Etim (2024), who cautioned that top-down procurement planning often leads to mismatches between budgetary allocations and actual needs, thereby reducing its effectiveness. Moreover, Nyarko and Boateng (2022)

observed that budget constraints across African higher education institutions frequently undermine procurement planning, leaving universities unable to execute even well-formulated plans.

For public universities, regulatory bottlenecks often constrain the flexibility of planning processes. The Bureau of Public Procurement (BPP, 2022) reported that while compliance with guidelines has improved, cumbersome approval processes delay implementation. Private universities, by contrast, exhibit greater agility in aligning procurement strategies with academic priorities (Akeke, Osagie, & Emeka, 2025). This comparative insight underscores that while procurement planning is important across the board, its actual impact is mediated by governance structures and resource environments.

5.2.2 Supplier Evaluation and University Performance

The study produced a counterintuitive finding: supplier evaluation demonstrated a statistically significant but negative effect on university performance ($\beta = -.052$, $p = .009$). This suggests that supplier assessment practices, rather than improving efficiency, may be hindering outcomes in the sampled institutions. The descriptive results further revealed that universities often lack clearly defined supplier criteria, a factor that likely contributes to inefficiencies.

This aligns with Musa and Adeyemi (2021), who noted that supplier evaluation frameworks in Nigerian tertiary institutions are often ad hoc and inconsistently applied, leading to the selection of vendors with poor capacity. Similarly, Ojo, Olatunji, and Abubakar (2023) highlighted that although digital supplier evaluation tools are emerging, their adoption remains patchy and poorly integrated, limiting their

effectiveness. The negative statistical association in this study may therefore reflect the operational weakness of supplier evaluation mechanisms rather than their irrelevance.

Additionally, public universities face regulatory constraints requiring adherence to due process in supplier selection. Okafor and Ayoola (2023) argued that limited regulatory knowledge among procurement officers often results in procedural lapses, undermining supplier evaluation outcomes. In private universities, while there is greater autonomy, Eze and Ogundipe (2021) found that supplier selection often prioritizes cost over quality, which can diminish service reliability. Collectively, these findings suggest that supplier evaluation in Nigerian universities remains underdeveloped and may inadvertently weaken institutional performance when poorly executed.

5.2.3 Contract Management and University Performance

Contract management also demonstrated a significant negative effect on performance ($\beta = -.108, p = .006$). This result points to deficiencies in how universities negotiate, implement, and monitor contracts. Respondents indicated uncertainty about contract clarity and enforcement, supporting the conclusion that ineffective contract practices undermine efficiency.

Nnaji and Isong (2023) observed that higher education institutions across Africa frequently struggle with contract risk management, particularly in relation to capital projects. In Nigeria, Ibadode and Igbinedion (2024) found that procurement delays stemming from poor contract oversight significantly hampered the timely completion of university infrastructure projects. These findings resonate with the present study's

results, which show contract management practices as a liability rather than a performance driver.

Conversely, studies in private universities have suggested that agile approaches to contract management enhance outcomes. Odeyemi and Uba (2022) emphasized that flexibility in renegotiation, coupled with real-time monitoring, improved project delivery in Nigerian private universities. The negative effect observed here may thus reflect the dominance of rigid, compliance-driven contract frameworks in public universities, where bureaucratic oversight eclipses adaptability.

The implication is clear: unless contract management practices are strengthened—through clearer terms, better risk-sharing, and improved monitoring—procurement contracts may continue to erode rather than enhance institutional performance.

5.2.4 Staff Competency and University Performance

Staff competency showed a positive and statistically significant impact on university performance ($\beta = .023$, $p = .030$). Respondents emphasized the importance of training, professional expertise, and technical knowledge in driving procurement outcomes. This finding corroborates Ijaiya and Balogun (2022), who established that staff competency significantly predicts procurement effectiveness in Nigerian public universities.

Competent procurement officers are critical for navigating complex regulatory environments and aligning procurement practices with institutional goals. Okafor and Ayoola (2023) stressed that procurement compliance in public universities improves significantly when staff demonstrate a sound understanding of procurement laws and guidelines. Similarly, Obasa and Gado (2022) found that private universities with

stronger staff capacity achieved better procurement outcomes and improved service delivery.

The findings also highlight a capacity gap. While staff competency has a positive influence, its effect size is small, suggesting that current training initiatives may not be sufficient. Barongo and Moturi (2025) similarly argued that procurement practices only enhance competitiveness when underpinned by continuous professional development. Therefore, to maximize performance, universities must invest more systematically in procurement training, certification, and exposure to best practices.

5.2.5 Inventory Management and University Performance

The analysis revealed that inventory management had a positive but statistically insignificant effect on performance ($\beta = .031$, $p = .705$). Respondents acknowledged that digital systems and record-keeping enhance inventory control, yet the statistical analysis suggests these practices are not yet robust enough to produce measurable performance outcomes.

This finding aligns with Bala and Ogundele (2021), who highlighted persistent inventory management challenges—such as inaccurate records and poor storage facilities—in Nigerian public universities. Similarly, Okonkwo and Chukwu (2022) observed that unreliable inventory systems undermine academic service delivery by causing stockouts and delays. Despite these challenges, Hassan and Ogbo (2023) noted that digitalization can improve inventory efficiency, although adoption rates remain low and uneven.

Private universities appear to fare somewhat better in this regard. Ajayi and Bello (2023) reported that investment in modern storage infrastructure enhanced resource

security and reduced waste in private institutions. Nevertheless, the insignificance of inventory management in this study indicates that while technological tools are present, their integration into broader procurement practices is insufficient. This reflects a broader challenge of translating operational tools into strategic performance outcomes.

5.2.6 Synthesis of Findings

Taken together, the findings present a complex picture. Procurement planning and staff competency emerged as positive and significant contributors to university performance, consistent with theoretical expectations under the Resource-Based View, which emphasizes internal resources as sources of advantage (Akeke, Adebajo, & Alade, 2025). However, supplier evaluation and contract management displayed negative significant effects, suggesting that these practices are either poorly implemented or undermined by contextual challenges. Inventory management, while conceptually relevant, showed no significant statistical influence.

The weak R Square (1.6%) and insignificant ANOVA results further suggest that procurement practices, as currently executed, account for only a small fraction of performance variation. This supports Obasa and Gado's (2022) argument that while procurement is essential, other institutional factors—such as governance structures, leadership quality, and funding stability—may exert stronger influences on university performance.

At the same time, the negative coefficients underscore a paradox: procurement practices designed to enhance performance may, in practice, detract from it when misaligned with institutional realities. Akeke, Osagie, and Emeka (2025) observed

that procurement strategies must be adaptive to global and local crises, otherwise rigid adherence to procedures may generate inefficiencies. This aligns with the current findings, which demonstrate that ineffective supplier evaluation and contract management can actively erode institutional outcomes.

5.2.7 Implications for Policy and Practice

The study's results carry several implications. First, procurement planning should be strengthened through inclusive approaches and better budget alignment. User involvement, as emphasized by Okeke and Dogo (2020), is particularly critical in ensuring that procurement plans reflect actual needs.

Second, supplier evaluation frameworks must be standardized and digitized. Ojo et al. (2023) noted that digital tools can improve transparency and accuracy in supplier selection, reducing the likelihood of inefficiencies.

Third, contract management practices require reform. Institutions should adopt agile frameworks, as demonstrated by Odeyemi and Uba (2022), to ensure flexibility and accountability in project delivery.

Fourth, staff capacity building should be prioritized through regular training, certification, and knowledge-sharing platforms. This is essential for bridging the gap between compliance requirements and strategic procurement outcomes (Ijaiya & Balogun, 2022).

Finally, inventory management must move beyond record-keeping to strategic integration with procurement planning and supplier evaluation. As Ajayi and Bello (2023) observed, robust storage infrastructure and digitalized systems can

substantially improve resource security if properly embedded in procurement strategies.

5.2.8 Conclusion of Discussion

In conclusion, this study highlights both the potential and the limitations of procurement practices in Nigerian universities. While procurement planning and staff competency offer pathways to improved performance, the weaknesses in supplier evaluation, contract management, and inventory management highlight persistent institutional challenges. Strengthening these practices requires not only technical improvements but also systemic reforms in governance, resource allocation, and accountability structures. Without such reforms, procurement in Nigerian universities risks remaining a compliance-driven exercise rather than a strategic enabler of performance.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the summary of key findings, the conclusion drawn from the study, recommendations for policy and practice, and suggestions for further research. The chapter builds on the empirical evidence provided in Chapter Five, synthesizing results into actionable insights for strengthening procurement practices in Nigerian universities.

6.1 Summary of Findings

The major findings of the study are summarized as follows:

1. Procurement planning showed a positive and statistically significant effect on university performance, though its explanatory power was relatively small. Stakeholder involvement and budget alignment improved efficiency, but bureaucratic bottlenecks in public universities limited its effectiveness.
2. Supplier evaluation exhibited a statistically significant but negative effect on performance. This suggests that weak or inconsistent evaluation frameworks, often influenced by cost-driven decisions and poor digital adoption, undermine institutional outcomes.
3. Contract management practices also demonstrated a negative and significant effect on university performance. Ineffective contract monitoring, delays, and rigid frameworks in public universities reduced procurement efficiency.
4. Staff competency was found to have a positive and significant influence on university performance. Professional knowledge, regulatory awareness, and

technical expertise enhanced procurement outcomes, although capacity gaps remain.

5. Inventory management had a positive but statistically insignificant effect on performance. While digital systems and storage infrastructure exist, they remain underutilized, reducing their potential impact on institutional outcomes.

6.2 Conclusion

This study set out to examine the effects of procurement practices on the performance of Nigerian universities, focusing on procurement planning, supplier evaluation, contract management, staff competency, and inventory management. The findings indicate that while procurement practices are critical to institutional effectiveness, their impact is inconsistent and often undermined by systemic weaknesses.

Procurement planning and staff competency emerged as the most reliable contributors to university performance. Effective planning ensures alignment between institutional needs and procurement strategies, while competent staff provide the expertise required to navigate complex regulatory and operational environments. These results underscore the resource-based view, which highlights internal capacities as drivers of organizational performance.

However, the negative influence of supplier evaluation and contract management highlights a significant paradox. Instead of improving efficiency, these practices are currently eroding institutional outcomes, largely due to weak frameworks, poor digital adoption, rigid regulatory procedures, and limited accountability. Similarly, inventory management, though conceptually valuable, has not yet matured into a strategic performance driver.

The weak overall model suggests that procurement alone is insufficient to explain university performance. Broader governance structures, leadership quality, and funding stability exert equally significant if not greater influences. Thus, procurement in Nigerian universities is presently more of a compliance exercise than a strategic enabler of competitiveness.

In conclusion, strengthening procurement practices requires a shift from process-driven compliance to performance-oriented strategies. Universities must adopt inclusive planning, standardized supplier evaluation frameworks, agile contract management systems, and robust capacity-building initiatives. Without such reforms, procurement will remain a bottleneck rather than a catalyst for improved performance in Nigerian higher education.

6.3 Recommendations

Based on the findings summarised, the following recommendations are made:

1. Universities should adopt participatory planning frameworks that involve end-users, align procurement needs with budget realities, and minimize bureaucratic delays.
2. Procurement officers should adopt transparent, digitalized supplier evaluation tools to ensure quality-based selection rather than cost-driven or ad hoc decisions.
3. Institutions should embrace agile and flexible contract management practices, with clear risk-sharing mechanisms, real-time monitoring, and accountability structures.

4. Regular training, professional certification, and regulatory awareness programs should be instituted to improve the competence of procurement staff.
5. Universities should digitalize inventory systems, improve storage infrastructure, and integrate inventory management with procurement planning to reduce waste and enhance resource security.

6.4 Suggestions for Further Studies

Future studies should explore the interaction between procurement practices and broader institutional factors such as governance, funding models, and leadership styles. A comparative study between Nigerian universities and other African higher education systems could also provide deeper insights into contextual differences. Furthermore, adopting mixed-method approaches including qualitative interviews would capture the nuanced challenges of procurement practices that quantitative models alone cannot fully explain.

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APPENDICES
QUESTIONNAIRE

SECTION A: Demographic Data

Please tick [] the option that applies to you.

1. Gender:

Male [] Female []

2. University:

University of Benin [] Igbinedion University []

3. Educational Qualification:

Diploma [] BSc [] MSc [] PhD [] Others []

4. Level of Work Experience:

1 – 5 years [] 6 – 10 years [] Above 10 years []

5. Department/Unit:

Procurement [] Finance [] Administration [] Academic (Faculty)
[] Others []

SECTION B: Respondents' Responses

Please indicate your level of agreement with the following statements by ticking () the appropriate box:

Procurement Planning

S/N	ITEMS	SA	A	UN	D	SD
1	Procurement planning helps ensure timely delivery of essential resources in your university.					
2	Effective procurement planning reduces unnecessary					

	costs and supports budget compliance.					
3	Your university aligns procurement plans with academic and infrastructural needs.					
4	Regular review and updating of procurement plans improve operational efficiency.					
5	Adequate stakeholder involvement enhances the effectiveness of procurement planning in your university.					

Supplier Evaluation

S/N	ITEMS	SA	A	UN	D	SD
6	Supplier evaluation criteria (quality, reliability, cost) are clearly defined in your university.					
7	Your university regularly reviews supplier performance to ensure consistent quality.					
8	Risk assessments are part of supplier evaluation to minimize procurement disruptions.					
9	Feedback from end-users (e.g., departments) is considered in supplier evaluation processes.					
10	Supplier evaluation practices have helped improve cost-effectiveness and service delivery.					

Contract Management

S/N	ITEMS	SA	A	UN	D	SD
11	Clear contract terms help avoid delays and ensure timely project completion in your university.					
12	Regular monitoring of contracts helps prevent budget overruns and quality issues.					
13	Training of procurement staff supports better contract negotiation and enforcement.					
14	Ethical and transparent contract management strengthens stakeholder trust.					
15	Effective contract management contributes to overall institutional performance improvement.					

Staff Competency

S/N	ITEMS	SA	A	UN	D	SD
16	Procurement staff possess adequate knowledge of procurement policies and regulations.					
17	Continuous training and certification improve the performance of procurement staff in your university.					
18	Technological proficiency among staff enhances procurement efficiency.					
19	Ethical orientation among staff reduces procurement-					

	related irregularities.					
20	Competent procurement staff contribute significantly to institutional performance.					

Inventory Management

S/N	ITEMS	SA	A	UN	D	SD
21	Accurate inventory records support timely availability of resources in your university.					
22	Adequate storage conditions help maintain the quality and longevity of inventory.					
23	Regular inventory audits improve accountability and reduce losses.					
24	Digital inventory systems enhance tracking and control of materials.					
25	Effective inventory management contributes to improved university performance.					

University Performance

S/N	ITEMS	SA	A	UN	D	SD
26	Procurement practices have positively influenced the academic performance of your university.					
27	Efficient procurement supports better infrastructure and service delivery.					

28	Improved procurement practices have enhanced the financial stability of your university.					
29	Effective procurement contributes to the reputation and competitiveness of your university.					
30	Procurement practices have overall contributed to the sustained performance of your university.					

Explanation:

SA = Strongly Agree

A = Agree

UN = Undecided

D = Disagree

SD = Strongly Disagree

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Frequency Table

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	66	55.0	55.0	55.0
Valid Female	54	45.0	45.0	100.0
Total	120	100.0	100.0	

Educational Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	21	17.5	17.5	17.5
B.Sc	60	50.0	50.0	67.5
Valid MSc	21	17.5	17.5	85.0
PhD	18	15.0	15.0	100.0
Total	120	100.0	100.0	

Level of Work Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5 years	54	45.0	45.0	45.0
6-10 years	53	44.2	44.2	89.2
Valid Above 10 years	13	10.8	10.8	100.0
Total	120	100.0	100.0	

Years of work experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Procurement	21	17.5	17.5	17.5
Finance	51	42.5	42.5	60.0
Administration	35	29.2	29.2	89.2
Valid Academic (Faculty)	13	10.8	10.8	100.0
Total	120	100.0	100.0	

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Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Procurement planning helps ensure timely delivery of essential resources in your university.	120	3.76	1.283	1.647

Effective procurement planning reduces unnecessary costs and supports budget compliance.	120	3.47	1.539	2.369
Your university aligns procurement plans with academic and infrastructural needs.	120	2.92	1.524	2.322
Regular review and updating of procurement plans improve operational efficiency.	120	3.68	1.347	1.815
Adequate stakeholder involvement enhances the effectiveness of procurement planning in your university.	120	4.25	1.132	1.282
Valid N (listwise)	120			

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Descriptives

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Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Supplier evaluation criteria (quality, reliability, cost) are clearly defined in your university.	120	2.99	1.338	1.790

Your university regularly reviews supplier performance to ensure consistent quality.	120	3.68	1.209	1.462
Risk assessments are part of supplier evaluation to minimize procurement disruptions.	120	4.02	1.137	1.294
Feedback from end-users (e.g., departments) is considered in supplier evaluation processes.	120	3.56	1.242	1.543
Supplier evaluation practices have helped improve cost-effectiveness and service delivery.	120	3.58	1.382	1.909
Valid N (listwise)	120			

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Descriptives

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Descriptive Statistics

	N	Mean	Std. Deviation	Variance
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Your university regularly reviews supplier performance to ensure consistent quality.	120	3.68	1.209	1.462
Risk assessments are part of supplier evaluation to minimize procurement disruptions.	120	4.02	1.137	1.294
Feedback from end-users (e.g., departments) is considered in supplier evaluation processes.	120	3.56	1.242	1.543
Supplier evaluation practices have helped improve cost-effectiveness and service delivery.	120	3.58	1.382	1.909
Valid N (listwise)	120			

DESCRIPTIVES VARIABLES=VAR00018 VAR00019 VAR00020 VAR00021
 VAR00022

/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

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Missing Value	User defined missing values are treated as missing.
Missing Handling	All non-missing data are used.
Cases Used	

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		STDDEV VARIANCE.
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Resources	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Clear contract terms help avoid delays and ensure timely project completion in your university.	120	2.91	1.512	2.286

Regular monitoring of contracts helps prevent budget overruns and quality issues.	120	3.07	1.540	2.372
Training of procurement staff supports better contract negotiation and enforcement.	120	3.54	1.302	1.696
Ethical and transparent contract management strengthens stakeholder trust.	120	3.44	1.340	1.795
Effective contract management contributes to overall institutional performance improvement.	120	3.12	1.265	1.600
Valid N (listwise)	120			

DESCRIPTIVES VARIABLES=VAR00023 VAR00024 VAR00025 VAR00026
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/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

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	Cases Used	All non-missing data are used.

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Syntax	Processor Time	00:00:00.00
Resources	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Procurement staff possess adequate knowledge of procurement policies and regulations.	120	3.68	1.124	1.263

Continuous training and certification improve the performance of procurement staff in your university.	120	3.38	1.154	1.331
Technological proficiency among staff enhances procurement efficiency.	120	3.53	1.028	1.058
Ethical orientation among staff reduces procurement-related irregularities.	120	3.41	1.126	1.269
Competent procurement staff contribute significantly to institutional performance.	120	3.27	1.145	1.310
Valid N (listwise)	120			

DESCRIPTIVES VARIABLES=VAR00028 VAR00029 VAR00030 VAR00031
 VAR00032

/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

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Missing Value	User defined missing values are treated as missing.
Handling	
Cases Used	All non-missing data are used.

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Syntax		
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Accurate inventory records support timely availability of resources in your university.	120	3.11	1.242	1.543
Adequate storage conditions help maintain the quality and longevity of inventory.	120	3.28	1.310	1.717

Regular inventory audits improve accountability and reduce losses.	120	3.39	.990	.980
Digital inventory systems enhance tracking and control of materials.	120	3.93	1.376	1.895
Effective inventory management contributes to improved university performance.	120	4.01	1.247	1.555
Valid N (listwise)	120			

DESCRIPTIVES VARIABLES=VAR00033 VAR00034 VAR00035 VAR00036

VAR00037

/STATISTICS=MEAN STDDEV VARIANCE.

Descriptives

Notes

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N of Rows in Working Data File	120
Missing Value	User defined missing values are treated as missing.
Missing Handling	All non-missing data are used.
Cases Used	

		DESCRIPTIVES
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		VAR00035 VAR00036
		VAR00037
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		STDDEV VARIANCE.
Syntax		
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Procurement practices have positively influenced the academic performance of your university.	120	3.41	1.149	1.319

Efficient procurement supports better infrastructure and service delivery.	120	3.36	1.002	1.005
Improved procurement practices have enhanced the financial stability of your university.	120	3.33	1.079	1.165
Effective procurement contributes to the reputation and competitiveness of your university.	120	3.49	1.195	1.429
Procurement practices have overall contributed to the sustained performance of your university.	120	3.18	1.123	1.260
Valid N (listwise)	120			

FACTOR

/VARIABLES VAR00010 VAR00015 VAR00020 VAR00025 VAR00031

/MISSING LISTWISE

/ANALYSIS VAR00010 VAR00015 VAR00020 VAR00025 VAR00031

/PRINT INITIAL DET KMO EXTRACTION

/CRITERIA MINEIGEN(1) ITERATE(25)

/EXTRACTION PC

/ROTATION NOROTATE

/SAVE REG(ALL)

/METHOD=CORRELATION.

Factor Analysis

Notes

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	N of Rows in Working	120
	Data File	
	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.

Syntax

Resources

Processor Time

```
FACTOR
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VAR00010 VAR00015
VAR00020 VAR00025
VAR00031
/MISSING LISTWISE
/ANALYSIS
VAR00010 VAR00015
VAR00020 VAR00025
VAR00031
/PRINT INITIAL DET
KMO EXTRACTION
/CRITERIA
MINEIGEN(1)
ITERATE(25)
/EXTRACTION PC
/ROTATION
NOROTATE
/SAVE REG(ALL)
/METHOD=CORRELA
TION.
00:00:00.03
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	Elapsed Time	00:00:00.03
	Maximum Memory Required	4396 (4.293K) bytes
Variables Created	FAC1_2	Component score 1
	FAC2_2	Component score 2

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Correlation

Matrix^a



a. Determinant

= .821

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.469
Bartlett's Test of Sphericity	Approx. Chi-Square of df	22.990
	Sig.	.011

Communalities

	Initial	Extraction
Your university aligns procurement plans with academic and infrastructural needs.	1.000	.377
Risk assessments are part of supplier evaluation to minimize procurement disruptions.	1.000	.706
Training of procurement staff supports better contract negotiation and enforcement.	1.000	.461
Technological proficiency among staff enhances procurement efficiency.	1.000	.536

Digital inventory systems enhance tracking and control of materials.	1.000	.518
--	-------	------

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.351	27.029	27.029	1.351	27.029	27.029
2	1.246	24.930	51.959	1.246	24.930	51.959
3	.966	19.316	71.275			
4	.824	16.473	87.748			
5	.613	12.252	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component	
	1	2
Your university aligns procurement plans with academic and infrastructural needs.	-.169	.591
Risk assessments are part of supplier evaluation to minimize procurement disruptions.	.838	-.060
Training of procurement staff supports better contract negotiation and enforcement.	-.458	.501
Technological proficiency among staff enhances procurement efficiency.	-.206	-.703
Digital inventory systems enhance tracking and control of materials.	.607	.387

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT VAR00033

/METHOD=ENTER VAR00010 VAR00015 VAR00020 VAR00025 VAR00031

/RESIDUALS DURBIN.

Regression

Notes

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Active Dataset	DataSet1
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Weight	<none>
Split File	<none>
N of Rows in Working Data File	120
Definition of Missing Value	User-defined missing values are treated as missing.
Missing Handling	Statistics are based on cases with no missing values for any variable used.
Cases Used	

Syntax	REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT VAR00033 /METHOD=ENTER VAR00010 VAR00015 VAR00020 VAR00025 VAR00031 /RESIDUALS DURBIN.
Resources	Processor Time 00:00:00.02 Elapsed Time 00:00:00.03 Memory Required 3348 bytes Additional Memory Required for Residual Plots 0 bytes

[DataSet1] C:\Users\user\Documents\Procurement practice analysis.sav

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
	<p>Digital inventory systems enhance tracking and control of materials.,</p> <p>Your university aligns procurement plans with academic and infrastructural needs.,</p> <p>Training of procurement staff supports better contract negotiation and enforcement.,</p> <p>Technological proficiency among staff enhances procurement efficiency.,</p> <p>Risk assessments are part of supplier evaluation to minimize procurement disruptions.^b</p>		Enter

a. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.128 ^a	.016	-.027	1.164	1.772

a. Predictors: (Constant), Digital inventory systems enhance tracking and control of materials., Your university aligns procurement plans with academic and infrastructural needs., Training of procurement staff supports better contract negotiation and enforcement., Technological proficiency among staff enhances procurement efficiency., Risk assessments are part of supplier evaluation to minimize procurement disruptions.

b. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.584	5	.517	.382	.861 ^b
	Residual	154.408	114	1.354		
	Total	156.992	119			

a. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.

b. Predictors: (Constant), Digital inventory systems enhance tracking and control of materials., Your university aligns procurement plans with academic and infrastructural needs., Training of procurement staff supports better contract negotiation and enforcement., Technological proficiency among staff enhances procurement efficiency., Risk assessments are part of supplier evaluation to minimize procurement disruptions.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	3.731	.801								
	Your university aligns procurement plans with academic and infrastructural needs.	.023	.071	.325	.745	.027	.030	.030	.964	1.037	
	Risk assessments are part of supplier evaluation to minimize procurement disruptions.	-.052	.101	-.512	.609	-.018	-.048	-.048	.860	1.163	

Training of procurement staff supports better contract negotiation and enforcement.											
	-.108	.085	-.123	-1.272	.206	-.110	-.118	-.118	.925	1.082	
Technological proficiency among staff enhances procurement efficiency.	.023	.106	.020	.215	.830	.028	.020	.020	.949	1.054	
Digital inventory systems enhance tracking and control of materials.	.031	.081	.037	.379	.705	.017	.036	.035	.919	1.088	

a. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Your university aligns procurement plans with academic and infrastructural needs.	Risk assessments are part of supplier evaluation to minimize procurement disruptions.	Training of procurement staff supports better contract negotiation and enforcement.	Technological proficiency among staff enhances procurement efficiency.	Digital inventory systems enhance tracking and control of materials.
1	1	5.492	1.000	.00	.01	.00	.00	.00	.00
	2	.201	5.231	.00	.83	.02	.00	.02	.02
	3	.127	6.570	.00	.03	.09	.60	.00	.08
	4	.104	7.258	.00	.01	.00	.08	.38	.35
	5	.062	9.383	.00	.00	.51	.05	.17	.51
	6	.014	19.834	.99	.12	.38	.27	.42	.04

a. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.14	3.75	3.41	.147	120
Residual	-2.524	1.729	.000	1.139	120
Std. Predicted Value	-1.843	2.339	.000	1.000	120
Std. Residual	-2.169	1.486	.000	.979	120

a. Dependent Variable: Procurement practices have positively influenced the academic performance of your university.