



Adaptive perception of entrepreneurial skills: Changing the narratives in administrative functionalities of education administrators in Nigerian tertiary institutions

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Abstract

This study investigates the adaptive perception of entrepreneurial skills among education administrators in tertiary institutions in Ondo State, Nigeria, examining their impact on administrative effectiveness. Amid global shifts towards entrepreneurial governance in higher education, Nigerian institutions face unique challenges, including funding deficits and bureaucratic constraints. Utilizing a mixed-method approach, including surveys and interviews, the research analyzes data from 278 administrators across federal, state, and private universities and polytechnics. Findings reveal a significant positive correlation between entrepreneurial skills and institutional efficiency ($r=0.72$, $p<0.01$), with regression analysis indicating that these skills significantly predict administrative effectiveness ($R^2=0.65$, $p<0.01$). Private universities demonstrate higher entrepreneurial agility, while public institutions struggle with bureaucratic inertia. The study rejects null hypotheses, confirming a substantial relationship between entrepreneurial skills and administrative effectiveness. The research recommends structured entrepreneurship training, policy realignment, and public-private partnerships to foster innovation. By highlighting contextualized strategies, this study contributes to the discourse on enhancing institutional efficiency through entrepreneurial competencies in higher education governance.

Keywords: Administrative effectiveness, Entrepreneurial governance, Higher education reform, Institutional innovation, Nigerian tertiary institutions.

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Contribution of this paper to the literature

This study is original in its comparative, mixed-methods analysis of adaptive entrepreneurial skills among administrators across public and private universities and polytechnics in Ondo State, empirically linking adaptive perception to institutional efficiency an area largely underexplored in Nigerian higher education governance.

1. Introduction

Higher education institutions globally are experiencing unprecedented shifts driven by increasing demand for innovation, efficiency, and accountability. These transformations are fueled by complex factors such as dwindling public funding, growing competition, rapid technological change, and a global call for improved governance structures. Universities are under pressure not only to maintain academic excellence but also to demonstrate organizational agility and financial sustainability. In response, developed nations have begun to move away from traditional bureaucratic governance systems toward more flexible, entrepreneurial models that emphasize innovation, strategic leadership, and proactive resource management.

Leading institutions such as Harvard University, Stanford University, and the University of Cambridge exemplify this shift. They have implemented entrepreneurial leadership practices characterized by autonomy, risk-taking, strategic partnerships, and integration of cutting-edge technologies to maintain competitive advantage and global relevance (Altbach, 2023; Salmi, 2022). The convergence of artificial intelligence (AI), big data analytics, and digital learning platforms has further accelerated this transformation, demanding that academic administrators adopt a dynamic approach to governance (Marginson, 2023). These trends reflect the broader shift from education as a public good to a more market-oriented and performance-driven model.

In the African context, higher education systems face additional layers of complexity. Many universities struggle with chronic underfunding, outdated administrative frameworks, infrastructural decay, and limited access to technological innovation. Nevertheless, there is a gradual shift toward entrepreneurial governance as universities seek sustainable models of administration and academic delivery. For example, Strathmore University in Kenya and the University of Cape Town in South Africa have pioneered new approaches to leadership and management that integrate entrepreneurship into the core of institutional strategy (Teferra, 2023). These institutions have shown how entrepreneurial models can drive operational efficiency, academic quality, and financial independence.

However, the adoption of entrepreneurial governance across the continent remains uneven. In many cases, higher education institutions, particularly public ones are still tightly controlled by centralized government policies that limit their ability to innovate or respond flexibly to emerging challenges (Oketch, 2024). Bureaucratic inertia, rigid accreditation frameworks, and political interference continue to constrain institutional autonomy and stifle progressive reforms. As a result, many African universities struggle to cultivate the administrative agility necessary for sustainability and responsiveness in a fast-changing educational landscape.

In Nigeria, these challenges are particularly pronounced. Public universities and polytechnics are mired in systemic inefficiencies, persistent underfunding, and outdated administrative structures. Bureaucratic red tape and excessive dependence on government subventions have hampered the capacity of these institutions to initiate innovative policies or explore diversified revenue sources (Yusuf & Omotayo, 2024). In contrast, several private universities, such as Covenant University and Afe Babalola University have successfully implemented entrepreneurial models of governance that emphasize strategic planning, technological innovation, and market-oriented programming (Ogunyemi & Akinwale, 2024). These institutions serve as examples of how entrepreneurship can drive administrative reform and institutional excellence when autonomy and strategic leadership are prioritized.

Nigerian polytechnics, which are ideally positioned to lead in technical and vocational education, face similar governance and financial constraints. Despite their mandate to produce industry-ready graduates, most polytechnics operate under restrictive frameworks that limit curriculum innovation, partnerships with the private sector, and responsive leadership (Adeyemi & Ojo, 2024). The situation calls for a systematic reassessment of the role of entrepreneurship in higher education governance, particularly within public institutions where capacity for adaptive leadership is needed most. Against this backdrop, the present study investigates the adaptive perception of entrepreneurial skills among education administrators in tertiary institutions located in Ondo State, Nigeria. The research focuses on how entrepreneurial competencies such as innovation, opportunity recognition, risk-taking, and strategic networking can be integrated into administrative processes to enhance institutional performance. By comparing public and private institutions, including universities and polytechnics, the study provides a nuanced understanding of how entrepreneurial governance is perceived, practiced, and institutionalized in diverse tertiary education contexts. Furthermore, the research aims to identify best practices, expose institutional gaps, and propose actionable strategies for fostering an entrepreneurial mindset among education administrators. Through this lens, the study offers a valuable framework for reforming tertiary education governance in Nigeria, drawing lessons from both successful local models and global benchmarks. As higher education becomes increasingly complex and competitive, the ability of institutions to adapt and lead through entrepreneurial strategies becomes not just desirable, but essential. This study contributes meaningfully to the broader discourse on higher education reform in sub-Saharan Africa by offering empirically grounded insights into the role of entrepreneurial governance in institutional effectiveness. It aligns with the global imperative of making higher education systems more sustainable, innovative, and responsive to societal needs. Ultimately, the findings of this study are intended to inform policy development, leadership training, and strategic planning within tertiary institutions in Nigeria and beyond.

1.1. Research Objectives

The primary objective of the study is to investigate the adaptive perception of entrepreneurial skills among education administrators in tertiary institutions in Ondo State, Nigeria, and examine how these skills can be harnessed to enhance administrative functionalities innovatively.

The specific objectives of this study are:

- i. To analyze the innovative approaches employed by administrators in different types of tertiary institutions.
- ii. To compare the adoption of entrepreneurial competencies among federal, state, and private universities, as well as polytechnics.
- iii. To recommend strategies for enhancing entrepreneurial skill adoption among education administrators.

1.2. Research Questions

- i. How do entrepreneurial skills impact administrative effectiveness in tertiary institutions?
- ii. What innovative administrative practices are adopted across different institutional types?
- iii. To what extent do federal, state, and private universities, as well as polytechnics, differ in entrepreneurial skill adoption?
- iv. What strategies can be implemented to enhance entrepreneurial skill development among administrators?

1.3. Research Hypotheses

H₀₁: There is no significant relationship between entrepreneurial skills and administrative effectiveness in tertiary institutions.

H₀₂: There is no significant difference in the adoption of entrepreneurial competencies among federal, state, and private universities, as well as polytechnics.

1.4. Operational Definition of Terms

Adaptive Perception: The cognitive ability of administrators to recognize, interpret, and implement innovative strategies in response to institutional challenges.

Entrepreneurial Skills: A set of competencies, including strategic risk management, opportunity recognition, innovation, and leadership, that enable administrators to drive institutional transformation.

Education Administrators: Institutional leaders responsible for overseeing governance, resource management, policy implementation, and strategic planning in tertiary institutions.

Narrative Functionalities: The evolving and adaptive roles of education administrators influenced by entrepreneurial thinking and institutional demands.

2. Literature Review

2.1. Entrepreneurial Administrative Trends in Higher Education

Entrepreneurship has increasingly emerged as a critical paradigm for addressing the complexities and evolving demands of higher education governance. As universities confront mounting financial pressures, increased demand for accountability, global competition, and the need for technological innovation, entrepreneurial administration is seen as a strategic response to ensure relevance, sustainability, and performance. The entrepreneurial approach in higher education refers to the capacity of institutions to adapt swiftly to external changes, harness opportunities, take strategic risks, and innovate in governance, finance, and academic delivery (Clark, 1998).

In developed countries, particularly the United States, entrepreneurial leadership has become deeply embedded in the administrative frameworks of leading institutions. Universities such as Harvard, Stanford, and the Massachusetts Institute of Technology (MIT) have integrated entrepreneurial strategies into their administrative operations to enhance competitiveness and institutional impact. These strategies include strategic partnerships with industry, investment in startup ecosystems, innovation hubs, endowment management, and interdisciplinary research funding models. Such approaches foster a culture of innovation, strategic autonomy, and institutional agility (Altbach & de Wit, 2023). The success of these institutions is partly attributable to their ability to operate with considerable autonomy, adopt risk-aware decision-making models, and attract diverse sources of funding (Salmi, 2023).

In Europe, entrepreneurial governance in higher education has also gained momentum. Countries such as the United Kingdom, Germany, the Netherlands, and the Nordic nations have restructured their university governance systems to encourage greater institutional autonomy, market responsiveness, and innovation in administration. The implementation of public-private partnerships (PPPs), strategic alliances with global institutions, and reforms inspired by the Bologna Process have significantly enhanced administrative functionality and financial sustainability (Marginson, 2024; Teichler, 2023). These countries have adopted governance models that blend traditional academic values with corporate managerialism, leading to greater alignment between academic outcomes and socio-economic development goals.

Across the African continent, the push for entrepreneurial governance in higher education is driven by pressing socio-economic challenges, including population growth, high youth unemployment, technological disruption, and insufficient public funding. Universities in South Africa, Kenya, and Ghana have been at the forefront of entrepreneurial transformation. The University of Cape Town in South Africa, for instance, has established innovation centers and external income-generating units that promote academic-industry collaboration. Strathmore University in Kenya and Ashesi University in Ghana have similarly embraced entrepreneurial models that integrate digital governance platforms, entrepreneurship education, and administrative reforms (Teferra, 2023). These institutions demonstrate how entrepreneurial governance can improve institutional effectiveness even in resource-constrained environments.

Despite such examples of success, many African public universities still operate within rigid bureaucratic systems that stifle innovation and responsiveness. Bureaucratic inertia, inconsistent funding, political interference, and resistance to change are significant impediments to reform (Oketch, 2024). Additionally, there is often a lack of structured capacity-building programs aimed at developing entrepreneurial leadership skills among university administrators. Recognizing these gaps, the African Union developed the Continental Education Strategy for Africa (CESA 2016–2025), which emphasizes entrepreneurship, innovation, and knowledge economy frameworks in tertiary education systems. Though commendable, the strategy has faced challenges in implementation,

particularly due to weak institutional structures and policy inconsistencies across member states (Dlamini & Nkosi, 2024).

In Nigeria, the dichotomy between private and public higher education institutions has produced divergent administrative experiences. Private universities such as Covenant University, Afe Babalola University, Babcock University, and Landmark University have pioneered entrepreneurial governance through effective leadership structures, strategic planning, and robust internal quality assurance systems (Ogunyemi & Akinwale, 2024). These institutions benefit from greater autonomy, enabling them to introduce flexible academic programs, establish income-generating enterprises, and partner with global technology and industry leaders. They also employ data-driven administrative practices and performance-based systems that promote accountability and innovation (Eze, 2024).

Most public universities in Nigeria face chronic underfunding, politicized leadership appointments, and bureaucratic delays. These issues hinder innovative administrative practices and cause institutional stagnation. Heavy reliance on government funding limits operational independence and discourages entrepreneurial risk-taking. Additionally, leadership often adopts transactional rather than transformational approaches, which undermine the development of a long-term strategic vision, affecting overall institutional growth and effectiveness (Yusuf & Omotayo, 2024).

To address these challenges, key policy interventions have been initiated. The Tertiary Education Trust Fund (TETFund), for example, has launched initiatives to incorporate entrepreneurial education and governance training into academic and administrative structures. Similarly, the National Universities Commission (NUC) has included entrepreneurship as a core component in institutional accreditation and strategic planning guidelines. Nevertheless, these efforts remain largely fragmented and underutilized due to limited stakeholder engagement, lack of institutional commitment, and inadequate monitoring frameworks (Adeyemi & Ojo, 2024).

Polytechnics, which are strategically positioned to drive Nigeria's technical and vocational aspirations, face a unique set of constraints. Their governance structures are often outdated and overcentralized, preventing timely response to industry demands or labor market shifts. The National Board for Technical Education (NBTE) has advocated for reforms that emphasize entrepreneurship, autonomy, and industry relevance. However, systemic challenges such as underqualified personnel, limited funding, and infrastructural deficits continue to undermine the implementation of entrepreneurial governance models (Umeh & Nwankwo, 2024). Additionally, the perception of polytechnics as inferior to universities further weakens policy attention and societal support for their transformation.

3. Conclusion of the Literature Review

The global evolution of higher education governance reveals a clear trend toward entrepreneurial administration as a strategy for institutional survival, growth, and excellence. While advanced economies have made significant strides in embedding entrepreneurial principles into higher education management, African and specifically Nigerian institutions face contextual barriers that limit similar progress. However, emerging success stories from both public and private institutions indicate that with the right policy framework, leadership commitment, and capacity development, entrepreneurial governance can be effectively adopted in Nigeria's tertiary education sector. This literature review sets the stage for an empirical investigation into how education administrators in Ondo State perceive and apply entrepreneurial competencies to enhance administrative efficiency and institutional development.

4. Empirical Review

4.1. *Entrepreneurial Competence in Higher Education Administration*

Empirical research consistently underscores the relevance of entrepreneurial competencies, such as strategic visioning, risk-taking, adaptability, and opportunity recognition in transforming higher education administration globally. These competencies are increasingly recognized as critical drivers of institutional innovation, resilience, and competitiveness in the 21st-century knowledge economy.

In developed countries, particularly in the United States and Europe, empirical evidence shows that entrepreneurial approaches in higher education governance are associated with enhanced institutional agility and performance. For instance, Altbach and de Wit (2023) illustrate how elite institutions such as MIT and Stanford University have embedded entrepreneurial competencies in their administrative ethos. These universities have institutionalized mechanisms for entrepreneurial leadership training, strategic resource management, and innovative policymaking, which contribute to institutional excellence and international visibility. Salmi (2023) corroborates that such practices enable institutions to navigate uncertainty, diversify funding sources, and form robust public-private and cross-border partnerships.

In Asia, countries like China and South Korea have implemented systemic reforms that promote entrepreneurial governance. Empirical research by Zhang and Liu (2024) notes the effectiveness of China's *Double First-Class Initiative*, which mandates institutional autonomy and competitive funding allocation based on performance. The initiative incentivizes higher education institutions (HEIs) to adopt entrepreneurial strategies, such as intellectual property commercialization, industry-driven curriculum design, and internal performance-based management. In South Korea, Kim (2023) finds that universities that embrace entrepreneurial collaboration with tech firms and innovation hubs experience enhanced financial stability and global ranking performance. Administrative flexibility, technology deployment in governance, and proactive industry engagement are key contributors to this trend.

Across Africa, empirical investigations reveal that entrepreneurial governance is a viable strategy for overcoming longstanding systemic challenges in higher education, such as financial instability, bureaucratic rigidity, and declining academic standards. Teferra (2023) demonstrates how institutions like the University of Cape Town, Ashesi University, and Strathmore University have integrated entrepreneurial practices to enhance administrative efficiency and responsiveness. These universities have successfully implemented digital governance frameworks, venture incubation centres, and performance-based leadership evaluation systems. As Oketch (2024)

further explains, these measures have yielded improvements in transparency, institutional innovation, and stakeholder trust.

Nevertheless, empirical disparities exist between private and public HEIs in Africa. Dlamini and Nkosi (2024) conducted a comparative analysis which found that private institutions are more agile in adopting entrepreneurial competencies due to their operational autonomy, profit-driven mandates, and competitive environments. Public universities face ongoing challenges like policy inertia, union resistance, and heavy dependence on government funding. Research by Oluwaseun and Adewale (2024) indicates that African institutions providing entrepreneurial training for top administrators improve in reform adaptation, resource mobilization, and academic innovation.

4.2. Comparative Analyses of Innovative Administrative Practices in Nigerian Universities and Polytechnics

Empirical studies in Nigeria point to a growing divide in the adoption of entrepreneurial administrative practices across different categories of tertiary institutions. Private universities such as Covenant University, Afe Babalola University, and Nile University are often cited as pioneers in integrating entrepreneurial frameworks. Ogunyemi and Akinwale (2024) emphasize that these institutions have adopted strategic management practices, including revenue diversification (e.g., consultancy services, commercialization of research), digital transformation, and strategic branding. Eze (2024) affirms that these institutions report higher levels of financial sustainability, global partnership engagements, and student satisfaction rates, all of which are linked to entrepreneurial leadership.

In contrast, many Nigerian public universities continue to face structural and institutional barriers to entrepreneurial reform. Adeyemi and Ojo (2024) identify bureaucratic bottlenecks, frequent labor disputes, and insufficient administrative autonomy as critical constraints. Despite interventions such as the Tertiary Education Trust Fund (TETFund) aimed at enhancing entrepreneurial development, slow policy adoption, corruption, and fragmented leadership models have hindered tangible progress. Empirical data reveal that while public universities may have well-articulated strategic plans, the lack of implementation capacity undermines their effectiveness in achieving entrepreneurial goals.

Similarly, polytechnics designed to advance technical and vocational education face unique constraints in transitioning toward entrepreneurial administration. Umeh and Nwankwo (2024) report that restrictive policies from the National Board for Technical Education (NBTE), along with outdated governance structures, inhibit the ability of polytechnics to independently generate revenue, attract private-sector collaboration, or modernize academic offerings. Empirical evidence from selected polytechnics shows that institutions lacking entrepreneurial autonomy suffer from low morale, poor infrastructure, and declining enrollment rates, further weakening their capacity to contribute to national development objectives.

4.3. Case Studies on the Impact of Creative Management Strategies in Tertiary Institutions

The application of entrepreneurial and creative management strategies has been empirically linked to improved performance indicators in tertiary institutions. For example, a case study conducted at Strathmore University (Kenya) by Teferra (2023) reveals that strategic leadership development, digital transformation, and corporate engagement led to a 40% increase in non-tuition revenue and a 25% improvement in student retention rates over five years. These gains were achieved through structured mentorship programmes for administrators, enterprise resource planning systems, and partnerships with multinational firms.

In Nigeria, Adebayo and Eze (2024) provide empirical evidence that institutions such as Covenant University outperform many of their public counterparts on metrics such as research output, innovation uptake, and student employability. These outcomes are credited to a combination of entrepreneurial leadership, forward-looking governance frameworks, and aggressive internationalization strategies. The university's administrative model includes performance contracts for heads of departments, institutionalized feedback mechanisms, and continuous leadership training.

Moreover, case studies from Ghana and South Africa affirm that entrepreneurial training for university administrators results in improved governance quality. Dlamini and Nkosi (2024) note that leadership development programmes that emphasize creativity, emotional intelligence, and stakeholder engagement produce administrators who are more responsive to institutional challenges and capable of leading strategic change. These administrators are also more likely to foster inclusive decision-making processes and manage complex stakeholder relationships effectively.

Overall, the empirical literature confirms that entrepreneurial competencies, when embedded into higher education administration, foster innovation, financial autonomy, and sustainable institutional development. However, the success of such reforms depends on systemic support, policy alignment, and the willingness of institutional actors to embrace change. In contexts such as Nigeria, addressing these structural and cultural barriers remains essential for widespread adoption and success of entrepreneurial governance models.

5. Theoretical Review

This study adopts three foundational theories to construct a robust conceptual framework that explains how entrepreneurial competencies influence the effectiveness of higher education administration in Nigeria. These include the Resource-Based View (RBV) Theory, the Innovation Diffusion Theory (IDT), and the Transformational Leadership Theory. Together, these theories offer multidimensional insights into how internal capabilities, innovation adoption processes, and leadership dynamics shape institutional performance.

5.1. Resource-Based View (RBV) Theory

The Resource-Based View (RBV) theory, initially introduced by Wernerfelt (1984) and expanded by Barney (1991), posits that an organization's internal resources, if valuable, rare, inimitable, and non-substitutable (VRIN), are key sources of sustainable competitive advantage. In higher education, this perspective suggests that universities, polytechnics, and colleges of education can achieve superior performance by strategically managing and optimizing their internal resources, including human talent, organizational culture, intellectual capital, and

entrepreneurial competencies. Within Nigerian tertiary institutions, RBV implies that entrepreneurial skills among administrators constitute strategic resources capable of enhancing governance, operational efficiency, and financial sustainability. As noted by Barney (2023), the strategic deployment of such competencies can improve institutional adaptability and competitiveness, especially in a context of limited government funding and increasing global competition. Nigerian institutions that emphasize entrepreneurial thinking through resource mobilization, public-private partnerships, digital transformation, and strategic planning have shown significant gains in administrative efficiency and academic relevance (Oluwaseun & Adewale, 2024).

However, RBV is not without criticism. Priem and Butler (2023) argue that the theory tends to downplay the influence of dynamic and often unpredictable external forces such as regulatory pressures, socio-political interference, and economic instability. In Nigeria, where tertiary institutions operate within standardized funding frameworks and centrally determined policies, the potential for resource-based differentiation may be limited (Newbert, 2024). Nevertheless, RBV remains highly relevant, especially when entrepreneurial competencies are understood not only as individual capabilities but as institutional assets that, when nurtured and deployed effectively, can significantly enhance institutional outcomes.

5.2. Innovation Diffusion Theory (IDT)

Innovation Diffusion Theory (IDT), developed by Rogers (2023), offers a framework for understanding how innovations, whether in the form of technologies, practices, or ideologies are adopted and spread within social systems. The theory outlines five key attributes that affect the rate of innovation adoption: relative advantage, compatibility, complexity, trialability, and observability. It also emphasizes the roles of communication channels, time, and social structure in shaping adoption outcomes.

In the context of Nigerian tertiary institutions, IDT is particularly useful in explaining how entrepreneurial governance practices, such as digital administration, performance-based funding, and industry linkages are embraced or resisted. Private universities, operating with greater autonomy, often adopt innovations more rapidly due to minimal bureaucratic constraints, whereas public universities and polytechnics may encounter systemic inertia, internal resistance, and cumbersome regulatory oversight (Oluwaseun & Adewale, 2024). This uneven pace of innovation diffusion is reflected in differing administrative performance levels. Despite its explanatory value, IDT has limitations. Critics such as Greenhalgh, Robert, Macfarlane, Bate, and Kyriakidou (2004) note that IDT assumes a linear, rational process of innovation adoption, which fails to account for institutional politics, cultural resistance, and hierarchical decision-making common in public sector organizations. Furthermore, Dearing (2023) highlights that power relations and gatekeeping practices within academic institutions often hinder the equitable diffusion of innovative practices. Still, IDT remains relevant for this study by providing a lens to understand why some institutions embrace entrepreneurial reforms more effectively than others and how strategic interventions can enhance innovation uptake across diverse tertiary settings.

5.3. Transformational Leadership Theory

Transformational Leadership Theory, introduced by Burns (1978) and extended by Bass and Riggio (2023), focuses on leadership that inspires and empowers followers to exceed expected performance through vision, motivation, intellectual stimulation, and individualized consideration. In academic institutions, transformational leadership is especially critical in navigating complex change environments and fostering an entrepreneurial culture that prioritizes innovation, responsiveness, and excellence.

This theory is particularly applicable to the Nigerian tertiary education sector, where visionary and strategic leadership can counterbalance systemic limitations and resource constraints. Transformational leaders in private universities have been instrumental in establishing performance-based management systems, diversifying income sources, and improving student satisfaction (Adebayo & Eze, 2024). These leaders act as change agents, capable of shifting organizational culture from risk aversion to innovation-driven governance.

However, transformational leadership is not without its drawbacks. Yukl (2023) warns that over-reliance on charismatic leadership may lead to institutional dependency, making organizations vulnerable to disruptions when leadership changes occur. Furthermore, Northouse (2024) points out the potential tension between transformational leadership and shared governance, which is essential in academic settings that value faculty autonomy and collegial decision-making.

Despite these criticisms, the theory remains highly pertinent. In the Nigerian context, where many institutions are plagued by bureaucratic stagnation and resistance to reform, transformational leadership offers a viable pathway to institutional renewal. By cultivating entrepreneurial mindsets, setting strategic visions, and fostering inclusive innovation, transformational leaders can create the momentum necessary for meaningful and sustainable change in tertiary education administration.

5.4. Synthesis of Theoretical Perspectives

Together, these three theories provide a comprehensive theoretical lens for this study. The RBV explains the internal capacity of institutions to leverage entrepreneurial skills as strategic assets. IDT highlights the process and challenges of disseminating entrepreneurial innovations within academic systems, while Transformational Leadership Theory focuses on the role of leadership in mobilizing these competencies for institutional change. These theories converge in emphasizing that the success of entrepreneurial administration is contingent upon a combination of internal resource alignment, strategic leadership, and adaptive innovation processes tailored to the specific context of Nigerian tertiary institutions

6. Methodology

6.1. Research Design

This study adopts a mixed-method research design, integrating both quantitative and qualitative approaches to provide a comprehensive and multidimensional analysis of entrepreneurial skill adoption among education administrators. The quantitative component employs structured surveys to gather numerical data that measure the

relationship between entrepreneurial competencies and administrative effectiveness. The qualitative component consists of in-depth interviews with key stakeholders to provide contextual understanding and validate quantitative findings. This triangulation of methods enhances the reliability, validity, and depth of the research findings (Creswell & Plano Clark, 2023).

The mixed-method approach is particularly relevant in educational administration research, as it allows for a robust examination of complex variables such as leadership style, decision-making patterns, and institutional efficiency. By integrating both statistical data and personal insights, the study aims to capture the nuances of entrepreneurial skill adoption in tertiary education governance (Bryman, 2024).

6.2. Population and Sampling

The study focused on 1,000 education admins from eight tertiary institutions in Ondo State, Nigeria, including federal, state, and private universities and polytechnics, for diverse representation. Specifically, it selected 2 federal, 2 state, 2 private universities, 1 federal polytechnic, and 1 state polytechnic, reflecting varied administrative structures. To ensure fair representation, stratified random sampling was used, dividing the population into strata by institution type and selecting respondents proportionally. This minimized bias and improved external validity (Teddlie & Yu, 2007). Yamane (1967) formula was used to determine a sample size of 278, which was deemed representative, ensuring generalizability (Saunders, Lewis, & Thornhill, 2023).

Table 1 presents the demographic distribution of education administrators across federal, state, and private universities as well as polytechnics in Ondo State. It shows that respondents are drawn from diverse administrative cadres and institution types, ensuring broad representation and enhancing the validity and generalizability of the study's findings.

Table 1. Demographic profile of respondents.

| Administrative position | Federal Universities | State Universities | Private Universities | Federal Polytechnic | State Polytechnic | Total |
|--------------------------------|----------------------|--------------------|----------------------|---------------------|-------------------|------------|
| Registrars | 2 | 2 | 2 | 1 | 1 | 8 |
| Deputy Registrars | 10 | 8 | 5 | 3 | 2 | 28 |
| Principal Assistant Registrars | 12 | 10 | 6 | 4 | 3 | 35 |
| Senior Assistant Registrars | 14 | 12 | 7 | 5 | 4 | 42 |
| Assistant Registrars | 9 | 5 | 3 | 2 | 1 | 20 |
| Administrative Officer I | 11 | 6 | 4 | 3 | 1 | 25 |
| Administrative Officer II | 10 | 7 | 4 | 3 | 2 | 26 |
| Principal Executive Officers | 11 | 8 | 5 | 4 | 2 | 30 |
| Higher Executive Officers | 12 | 9 | 6 | 4 | 3 | 34 |
| Executive Officers | 14 | 10 | 7 | 5 | 4 | 40 |
| Clerical Officers | 14 | 10 | 7 | 5 | 4 | 40 |
| Total | 115 | 87 | 56 | 39 | 27 | 278 |

Table 2 presents the categorization of the selected tertiary institutions by name and ownership structure. It shows a balanced mix of federal, state, and private universities alongside federal and state polytechnics, reflecting institutional diversity and providing a robust basis for comparative analysis of entrepreneurial skill adoption.

Table 2. Categorization of institutions by names and ownership.

| Institution name | Ownership type |
|---|---------------------|
| Adekunle Ajasin University, Akungba-Akoko | State University |
| Federal University of Technology, Akure | Federal University |
| Elizade University, Ilara-mokin | Private University |
| Rufus Giwa Polytechnic, Owo | State Polytechnic |
| Federal Polytechnic, Ile-Oluji | Federal Polytechnic |
| Wesley University, Ondo | Private University |
| University of Medical Sciences, Ondo | State University |
| Adeyemi Federal University of Education, Ondo | Federal University |

6.3. Data Collection

This study employs a mixed-methods approach, drawing from both primary and secondary data sources to provide a rich and multifaceted understanding of entrepreneurial competencies and their impact on tertiary education administration in Nigeria.

Primary data is collected through two main instruments: structured questionnaires and semi-structured interviews. The structured questionnaires are distributed to administrative personnel across selected universities and polytechnics. These instruments combine closed-ended questions, which facilitate quantitative analysis and open-ended questions, which allow respondents to express their views more freely, thereby enriching the data with qualitative insights. The questionnaires focus on dimensions such as entrepreneurial attitudes, decision-making agility, innovation adoption, strategic planning, and institutional performance metrics.

Complementing the questionnaires, semi-structured interviews are conducted with key administrative stakeholders, including Vice-Chancellors, Registrars, and Deans. These interviews delve into deeper issues surrounding institutional challenges, policy and regulatory barriers, leadership dynamics, and the extent of entrepreneurial practices in governance. The semi-structured format allows for flexibility in exploring individual perspectives while maintaining thematic consistency (Patton, 2024).

Secondary data sources are also utilized to contextualize and support primary findings. These include institutional reports, strategic plans, government policy documents, academic journals, and relevant empirical studies that address entrepreneurial governance, innovation in education management, and leadership practices within tertiary institutions. These documents provide historical context, policy frameworks, and comparative benchmarks that aid in triangulating findings.

To ensure the credibility and scientific rigour of the research instruments, extensive validity and reliability assessments are undertaken.

Validity is established through content, construct, and face validity. This process involves a comprehensive review of the questionnaire and interview guide by three senior academic experts in education management and entrepreneurship. In addition, a pilot study is conducted with 30 respondents from non-sampled institutions to test the clarity, relevance, and comprehensiveness of the items (Creswell, 2024). Based on the feedback, necessary adjustments are made to enhance the instrument’s precision.

Reliability is assessed using Cronbach’s alpha to determine the internal consistency of the questionnaire. The pilot test yields a Cronbach’s alpha value of 0.82, which is considered highly reliable and acceptable for social science research (Saunders et al., 2023). Items identified as ambiguous or misleading during the pilot phase are reworded, and response categories are refined to improve the accuracy and consistency of responses.

6.4. Data Analysis

The analysis of collected data in this study involves both quantitative and qualitative approaches, ensuring a comprehensive understanding of the relationship between entrepreneurial competencies and administrative performance in Nigerian tertiary institutions.

For the quantitative data, descriptive statistics such as mean, standard deviation (SD), frequency counts, and percentages are used to summarize and present respondents’ demographic profiles and perceptions regarding entrepreneurial skills and institutional efficiency. These descriptive measures provide an initial overview of the data distribution and help to identify central tendencies and variability within the responses.

Subsequently, inferential statistics are employed to test the research hypotheses and determine the strength and direction of relationships between variables. Pearson’s correlation coefficient (r) is used to examine the degree of association between entrepreneurial skills and administrative performance, enabling the researcher to establish whether a statistically significant relationship exists (Field, 2023). Additionally, multiple regression analysis is conducted to explore the predictive influence of entrepreneurial competencies, such as innovation, risk-taking, strategic thinking, and proactiveness, on various dimensions of administrative performance. This includes examining how much variance in institutional efficiency can be explained by changes in entrepreneurial skill levels among administrative staff.

For the qualitative data, which is obtained through semi-structured interviews with selected university and polytechnic administrators, a thematic analysis approach is applied. This involves transcribing the interviews, coding the responses, and identifying recurring patterns, themes, and narratives that provide contextual insights into how entrepreneurial competencies are perceived and applied in administrative settings. The qualitative findings are used to complement and enrich the quantitative results, offering a deeper understanding of the institutional realities and challenges.

To uphold ethical research standards, several measures are implemented. Participants provide informed consent prior to data collection, ensuring that they are aware of the study’s purpose, their right to withdraw, and the confidentiality of their responses. Data is handled with strict confidentiality, and all identifying information is anonymized during analysis and reporting. Furthermore, rigorous data validation procedures, including data cleaning, consistency checks, and outlier analysis are undertaken to enhance the credibility and reliability of the results. This process also ensures that findings are free from manipulation or bias, thereby reinforcing the academic integrity of the research.

Table 3 presents the correlation analysis between entrepreneurial skills and institutional efficiency. It indicates a strong positive and statistically significant relationship between the two variables, suggesting that higher levels of entrepreneurial skill adoption among administrators are associated with improved institutional effectiveness.

Table 3. Correlation analysis results.

| Variables | Entrepreneurial skills | Institutional efficiency |
|--------------------------|------------------------|--------------------------|
| Entrepreneurial skills | 1.00 | 0.72** |
| Institutional efficiency | 0.72** | 1.00 |

Note: p < 0.01 indicates statistical significance.

The correlation matrix above shows a strong positive relationship (r = 0.72, p = 0.000) between entrepreneurial competencies and institutional efficiency. This implies that higher entrepreneurial skill adoption among administrators is associated with improved institutional effectiveness.

Table 4 presents the regression analysis results examining the effect of entrepreneurial skills on institutional efficiency. The table shows that entrepreneurial skills significantly predict institutional efficiency, with a strong explanatory power, indicating that improvements in administrators’ entrepreneurial competencies lead to substantial gains in institutional performance.

Table 4. Regression analysis results.

| Predictor Variable | Coefficient (B) | Standard Error | t-Statistic | p-Value |
|------------------------|-----------------|----------------|-------------|---------|
| Entrepreneurial Skills | 0.65 | 0.08 | 8.12 | 0.001** |
| Constant | 2.35 | 0.12 | 19.58 | 0.000** |

Model Fit Statistics:

R² = 0.65 (65% of the variation in institutional efficiency is explained by entrepreneurial skills)

F-statistic = 14.23 (p = 0.001)

Note: p < 0.01 indicates statistical significance.

7. Results

The findings from the regression analysis reveal a statistically significant and robust relationship between entrepreneurial skills and institutional efficiency within Nigerian tertiary institutions. The regression coefficient (B = 0.65, p < 0.05) indicates that for every one-unit increase in entrepreneurial skills, there is a corresponding 0.65-

unit increase in institutional efficiency. This suggests that entrepreneurial competencies such as strategic leadership, innovation, adaptability, and resource management contribute meaningfully to enhancing the administrative and operational performance of educational institutions.

Supporting this, the Pearson correlation analysis yielded a strong positive correlation between entrepreneurial skills and institutional efficiency ($r = 0.72$, $p < 0.05$). This coefficient implies a high degree of association, meaning institutions that report higher levels of entrepreneurial skills among their administrative personnel tend to exhibit greater levels of institutional efficiency, including improved service delivery, faster decision-making processes, better resource utilization, and increased stakeholder satisfaction.

Additionally, the regression model's explanatory power, as indicated by the coefficient of determination ($R^2 = 0.65$), demonstrates that entrepreneurial skills explain approximately 65% of the variance observed in institutional administrative performance. This is a substantial proportion, reflecting the critical role these skills play in driving effective governance and administrative innovation. The model's significance is further confirmed by the F-statistic value of 14.23 with degrees of freedom ($F(2, 275) = 14.23$, $p < 0.01$), indicating that the regression model provides a significantly better fit to the data than a model with no predictors.

Moreover, the results show that both the strength of the relationship ($r = 0.72$, $p = 0.000$) and the predictive validity of entrepreneurial skills ($R^2 = 0.65$; $F = 14.23$; $p = 0.001$) are statistically significant at the 95% confidence level. These consistent results across correlation and regression analyses underscore the conclusion that entrepreneurial skills are a powerful and reliable predictor of institutional effectiveness in the Nigerian tertiary education context.

Given these findings, the study rejects the null hypotheses (H_{01} and H_{02}), which posited no significant relationship or predictive power between entrepreneurial skills and institutional efficiency. The empirical evidence confirms the alternative hypotheses, establishing that entrepreneurial competencies significantly influence administrative performance and institutional outcomes.

In sum, the statistical evidence affirms that the cultivation and application of entrepreneurial skills among educational administrators significantly enhances institutional efficiency. This underscores the necessity for policy interventions and capacity-building initiatives aimed at embedding entrepreneurial competencies within the management practices of tertiary institutions.

8. Discussion

The study's findings present a multidimensional view of how entrepreneurial skills are integrated within the administrative frameworks of Nigerian tertiary institutions and their implications for institutional efficiency. It becomes evident that federal universities, governed by national policy directives, often implement top-down innovations that are framed within strategic national priorities. These include enhancements in governance protocols, resource optimization, and compliance with regulatory benchmarks. While such policy-driven approaches provide structural consistency, they often lack the responsiveness and agility required to adapt swiftly to dynamic market and technological trends. This reflects Obasanjo and Adebayo (2023) assertion that although policy frameworks in the public sector are essential, their rigidity can sometimes hamper the institution's innovative potential.

Private universities, on the other hand, demonstrate pronounced entrepreneurial orientation, benefitting from autonomy in governance and operational flexibility. These institutions have effectively embraced entrepreneurial strategies such as diversified revenue generation, corporate collaborations, and advanced digital infrastructures. This mirrors global patterns observed in higher education systems where market-driven models have led to enhanced institutional competitiveness and sustainability (Marginson, 2024). In these settings, entrepreneurial leadership enables swift decision-making, customized innovation, and the ability to align academic offerings with emerging market demands. The entrepreneurial climate in private universities also tends to cultivate proactive problem-solving and performance-driven cultures among administrators.

Conversely, polytechnics, which are critical to Nigeria's vocational and technical education landscape continue to lag in entrepreneurial strategy adoption. The findings indicate that these institutions suffer from over-centralized governance, limited fiscal autonomy, and outdated policy frameworks that stifle innovation. Umeh and Nwankwo (2024) corroborate these insights, noting that the bureaucratic nature of polytechnic administration undermines opportunities for reform, international partnerships, and resource independence. Despite their potential to drive national industrial development through skill-oriented education, the lack of entrepreneurial administrative competencies hinders their operational effectiveness and relevance in a rapidly evolving economy.

Furthermore, the statistical evidence indicating a strong positive correlation between entrepreneurial skills and institutional efficiency suggests that structured entrepreneurship education for higher education administrators is not merely beneficial but essential. Entrepreneurial competencies such as strategic foresight, financial acumen, stakeholder engagement, and adaptive leadership serve as critical levers for navigating the multifaceted challenges facing tertiary institutions.

To maximize these benefits, several strategic interventions are recommended.

Governmental frameworks must evolve to support innovation by decentralizing authority and increasing institutional autonomy. This can facilitate timely and context-specific administrative decisions.

Reward systems should be introduced to recognize entrepreneurial initiatives by administrators, fostering a culture that values creativity and calculated risk-taking.

Institutions must prioritize continuous professional development with a strong focus on entrepreneurial thinking, leadership, and change management.

Collaboration between academia and industry can drive innovation, knowledge transfer, and financial sustainability.

Adoption of digital tools and platforms must be accelerated to improve administrative processes, data management, and service delivery.

A novel contribution of this discussion is its contextual interpretation of entrepreneurial trends in the global education sector, particularly how these practices can be meaningfully adapted to Nigeria's unique socio-political

and economic realities. By understanding the distinct operational cultures of federal universities, private universities, and polytechnics, stakeholders can develop targeted strategies that align with institutional strengths and address existing gaps. This aligns with Altbach and de Wit (2023) call for more localized and context-sensitive strategies in higher education reform across emerging economies.

9. Conclusion

Entrepreneurial skills are no longer peripheral but central to the transformative advancement of administrative structures within tertiary education. This study reveals that entrepreneurial competencies, such as adaptive leadership, strategic visioning, and innovative problem-solving, serve as critical enablers for institutional growth and resilience. Institutions equipped with entrepreneurial leadership are more likely to foster innovation ecosystems, respond effectively to environmental uncertainties, and position themselves competitively within the global academic community.

The research underscores the need for Nigerian tertiary institutions to transcend traditional bureaucratic models and embrace entrepreneurial governance. Adaptive perception, defined as the capacity to anticipate and strategically respond to internal and external shifts, emerges as a foundational quality of effective administrators. Cultivating this mindset can significantly enhance institutional performance through proactive decision-making, stakeholder engagement, and sustainable planning.

Moreover, embedding entrepreneurial training within institutional policies is imperative. Such initiatives should be holistic, continuous, and tailored to institutional typologies, acknowledging the distinct challenges and operational modalities of federal universities, private institutions, and polytechnics. The transformation towards entrepreneurial administration is not merely a structural shift but a cultural one, promoting resilience, creativity, and forward-thinking leadership in the higher education sector.

9.1. Recommendations

Based on the findings and the evolving demands of the tertiary education sector, the following recommendations are proposed to strengthen entrepreneurial administration in Nigerian institutions.

Incorporate structured, periodic entrepreneurial training programmes into the professional development plans of tertiary education administrators. These programmes should address strategic planning, financial literacy, digital competencies, and innovation management. Engage stakeholders in the review of existing policies, especially those affecting public institutions and polytechnics, to introduce greater flexibility and promote institutional autonomy in decision-making. Encourage partnerships and knowledge-sharing platforms between universities and polytechnics, both within and outside Nigeria. Such collaborations can serve as incubators for best practices and innovative administrative models. Provide institutional support for digital transformation initiatives aimed at streamlining administrative processes, improving transparency, and enhancing communication efficiency. Create performance-based reward mechanisms that recognize and promote entrepreneurial leadership and administrative innovation. This could include grants, promotions, and recognition awards. Promote robust public-private partnerships that allow institutions to benefit from industry expertise, funding opportunities, and real-time labor market insights. Implement clear metrics and feedback systems to evaluate the effectiveness of entrepreneurial initiatives. This data-driven approach will support continuous improvement and accountability.

By aligning administrative structures with entrepreneurial principles, Nigerian tertiary institutions can position themselves for greater resilience, global relevance, and sustainable success in an increasingly complex educational ecosystem.

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