

Effect of Innovative Mindset and Competitive Aggressiveness on the Performance of Selected Private Universities in North Central Nigeria

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Abstract

In an increasingly competitive and dynamic higher education landscape, private universities require leaders who are not only innovative and proactive but also capable of fostering a market-sensitive organizational culture to ensure sustainability and growth. The study adopts the causal research design to specifically determine the effect of innovative mindset and competitive aggressive on the performance of private universities in North central Nigeria. Utilizing a quantitative approach, data were collected from a sample of 293 academic and senior administrative staff members across eleven (11) private universities in North Central Nigeria through a structured questionnaire. Data analysis was conducted using Partial Least Square Structural Equation Modeling (PLS-SEM) carried out with the help of the SmartPLS statistical software to determine the effect of two dimensions of entrepreneurial leadership (innovative mindset and competitive aggressiveness) on private university performance. The findings reveal a significant and positive relationship between the two dimensions (innovative mindset and competitive aggressiveness) and private universities performance, with innovative mindset emerging as the most influential dimension. The results highlight the importance of cultivating an entrepreneurial mindset and fostering an institutional culture that encourages proactive behavior, innovative thinking and strategic foresight among leaders in private tertiary institutions. The study contributes to the literature on higher education leadership and provides practical implications for policymakers, administrators, and stakeholders in the North Central Nigeria and broader Nigerian higher education context.

Keywords: Competitive Aggressiveness, Entrepreneurial Leadership, Innovative Mindset, North Central Nigeria, Organisational Performance, Private University,

Introduction

University education remains an integral part of the development of manpower in the country. Private university education is unarguably one of the growing trends in the education system in the world. The involvement of the private sector in the provision of university education is a global phenomenon (Suleiman, et al. 2017). Private universities have a vital role in facing global challenges by providing education that is adaptive, innovative, and focuses on the needs of the global job market. According to Nurunnabi, (2016) and Schalkwyk, et al. (2020), the growth in private higher education can be attributed to rising incomes, an increase in foreign investment, the growing complexity of economic activity, an increase in secondary school leavers and the reliance on the demand for higher education, which is not met by the public sector. In most developing economies, higher education system has traditionally been dominated by a domineering set of public universities and oversight bodies. However, in the recent past there has been development in private universities with a number of individuals and corporate entities joining to form new universities (Usman 2014).

In Africa, there is an expectation for higher education to deliver high-quality results while simultaneously reducing the associated costs (Tabe, 2023). Improving the performance of universities is crucial for the advancement of knowledge and the progress of nations and the global community. The issue of poor performance in tertiary institutions in Nigeria and beyond is said to be a contested terrain characterised by poor leadership and other related challenges (Adeyemi et al., 2021). Aside structural issues and the inability of many universities to cope with the challenges of the 21st century, Samsiah et al. (2024) underscore some of these critical issues to include the evolution of new markets and the creation of new opportunities; the shift from teaching institutions to learning organizations; and the emergence of new professions and vocations. Despite considerable efforts to improve efficiency, universities in Nigeria (both public and private) have faced significant challenges, including issues of teaching effectiveness, graduate employability, research productivity, and institutional rankings.

Previous studies have indicated that these challenges may be attributed to non-existence of entrepreneurial leadership dimensions (Ozopelide et al. (2024), Samsiah et al. (2024), Adeyemi et al. (2021), Wara et al. (2021), Nwosu & Ohia (2019), Akande & Ojokuku (2017). Although entrepreneurial leadership is acknowledged for its performance in complex environments, there is a scarcity of research on its influence and effectiveness (Taylor, et al 2025). Considering this fact, the paper seeks to ascertain the effect of two dimensions of entrepreneurial leadership on performance of private universities in North Central Nigeria. This paper specifically tries to address how resources like innovative mindset and competitive aggressiveness can influence private universities performance in North Central Nigeria.

In view of the foregoing, the following hypotheses stated in null form were formulated to provide direction for the study.

HO₁: Innovative mindset has no effect on the performance of private universities in North Central Nigeria.

HO₂: Competitive aggressiveness has no effect on performance of private universities in North Central Nigeria.

Innovative Mindset

The ability to foster a culture of creativity and innovation is vital catalyst for individual advancement, economic expansion, and societal advancement (Moiseyenko, 2021). According Sutanto (2017), creativity entails the department head's pursuit of generating valuable and practical new ideas, products/services, procedures, or processes, whereas innovation is characterized by the department head's endeavor to implement novel ideas, behaviors, products/ services, technologies, and administrative practices. The integration of entrepreneurial thinking and adept management of strategic resources has the potential to enhance creativity and innovation, thereby fostering a positive influence on organizational performance (Dwi Widayani et al., 2020). Entrepreneurial leaders should hence encourage new academic programmes, teaching methods, curriculum development, technology integration, and pedagogical approaches to enhance the learning experience, institutional effectiveness and stay competitive.

An innovative mindset according to Konak, Kulturel-Konak, & Liu (2023), is a way of thinking that prioritizes creativity, problem-solving, and a willingness to take calculated risks to identify and pursue opportunities. In other words, it is a critical dimension of entrepreneurial leadership, reflecting a leader's ability to foster creativity, embrace change, and drive continuous improvement within an organization. An innovation mindset is crucial because it lays the foundation for continuous improvement and breakthrough advancements. According to Westover, (2024) an innovative mindset empowers employees to think outside the box and approach problems with fresh perspectives. Moreover, it encourages a proactive attitude towards challenges, turning them into opportunities for growth. Entrepreneurial leaders with an innovative mindset challenge the status quo, encourage experimentation, and leverage novel ideas to create competitive advantages. Entrepreneurial leaders with an innovative mindset drive organizational growth by fostering a culture of continuous innovation (Kuratko et al., 2015). They empower employees to contribute ideas, invest in R&D, and stay ahead of industry disruptions. The innovative mindset dimension of entrepreneurial leadership represents more than creative thinking; it encompasses the ability to challenge conventional approaches, implement novel solutions, and create organizational cultures that support continuous innovation.

Key characteristics of an innovative mindset

An innovative mindset according to Brown, (2008), and McGrath, (2011) is characterized by a set of cognitive and behavioral traits that enable individuals to generate, develop, and implement novel ideas effectively. They include:

- ➡ *Curiosity*: A strong desire to explore, ask questions, and seek knowledge beyond what is familiar. This involves a constant interest in understanding and improving the world.
- ➡ *Openness to New Ideas*: Being receptive to new concepts and diverse perspectives, and willing to consider different viewpoints.
- ➡ *Creativity*: The ability to generate new ideas and solutions, approaching problems from multiple angles and thinking outside the box.
- ➡ *Risk-Taking and Experimentation*: A willingness to experiment and try new things, even if it means failing, and being comfortable with calculated risks.

- *Resilience*: The ability to view failure as a learning opportunity rather than a setback, and to persevere through challenges.
- *Adaptability and Flexibility*: The capacity to adjust quickly to changing environments and integrate new information into strategies. Adjusting to changing circumstances and pivoting when necessary.
- *Continuous Learning*: A commitment to continuous improvement and always seeking new knowledge and skills.
- *Vision for the Future (Future-oriented Thinking)*: Combining creative problem-solving with a clear vision for creating positive change. A focus on anticipating trends and envisioning future possibilities.
- *Growth Mindset Foundation*: The innovator's mindset builds upon Carol Dweck's work and is characterized by the "belief that abilities, intelligence, and talents are developed leading to the creation of new and better ideas".
- *Empathy and User-Centered Thinking*: Understanding the needs and desires of users to develop successful innovations.

Impact of Innovative Mindset on Private Universities

In the dynamic landscape of higher education, universities are increasingly recognizing the importance of fostering innovation as a means to stay competitive, advance knowledge, and address societal challenges (Abdivaitovich, 2024). The impact of an innovative mindset on private universities according to Abdul, et al. (2024), Shao, et al. (2024) and Paños-Castro, et al. (2024) is multifaceted, influencing various aspects of their operations and strategic direction such as:

- ▶ Enhancing Competitiveness and Innovation Capacity: In the dynamic landscape of higher education, fostering innovation is crucial for private universities to stay competitive, advance knowledge, and address societal challenges.
- ▶ Fostering Entrepreneurship and Economic Growth: Private universities can strengthen their role as incubators of entrepreneurial talent by enhancing entrepreneurial ecosystems, equipping students with the tools to succeed in the global economy.
- ▶ Transforming Teaching and Learning: The university experience is shifting from knowledge acquisition to developing a mindset of innovation and creativity, motivating students to think out of the box and challenge conventional wisdom.
- ▶ Strategic Considerations and Challenges: High-performing university innovation ecosystems require high levels of entrepreneurial talent and a decentralized structure to maximize dynamism and resource utilization.
- ▶ Specific Strategies and Approaches: Private universities can enhance educational reforms by designing talent training programs, developing diversified curricula, and creating professional entrepreneurial platforms.
- ▶ Measuring Impact: Private universities are assessing the learning outcomes and challenges of innovation competitions and programs to improve their effectiveness in fostering an innovation mindset.

Competitive Aggressiveness

Competitive aggressiveness in entrepreneurial leadership refers to the proactive and assertive approach that entrepreneurs take to outperform competitors and seize market opportunities. According to Lumpkin & Dess, (1996), competitive aggressiveness is a key dimension of entrepreneurial orientation (EO) and reflects a firm's or leader's propensity to directly and intensely challenge competitors to improve market position and outperform rivals. This dimension involves a willingness to take risks, challenge the status quo, and engage in competitive tactics that can lead to innovation and market leadership. In entrepreneurial leadership, competitive aggressiveness involves a proactive, bold, and sometimes combative approach to securing competitive advantages, often through aggressive market strategies, rapid innovation, and assertive tactics (Wiklund & Shepherd, 2005).

Key Characteristics of Competitive Aggressiveness

Entrepreneurial leaders who are competitively aggressive are not only focused on maintaining their market share but also on gaining a competitive advantage over rivals. They are willing to confront and challenge competitors and strive to outperform them. Competitive aggressiveness in entrepreneurial leadership is characterized by several key traits that enable leaders to effectively challenge competitors and seize market opportunities. These include among others:

- ✓ *Market Positioning*: These leaders carefully position their products or services to stand out and offer a unique value proposition.
- ✓ *Market Analysis*: They continually analyze the market and competition to identify weaknesses, opportunities, and threats.
- ✓ *Strategic Decision-Making*: Competitive leaders make strategic decisions to gain a competitive edge, such as pricing strategies, product differentiation, or market expansion. This often involves rapid decision-making to seize opportunities before rivals can react.
- ✓ *Resource Allocation*: They allocate resources effectively to support competitive strategies, which might involve increasing marketing efforts, research and development, or operational efficiency.
- ✓ *Proactive Rivalry Engagement*: Entrepreneurial leaders with high competitive aggressiveness actively seek to outperform competitors rather than merely responding to market changes.
- ✓ *Bold Competitive Moves*: This may include aggressive pricing, aggressive marketing, or disruptive innovations to weaken competitors.
- ✓ *Risk-Taking in Competitive Actions*: Competitive Leaders may take calculated risks, such as entering new markets before competitors or engaging in intense promotional battles.
- ✓ *Innovative Thinking*: The ability to think outside the box and come up with unique ideas or solutions. This is essential for fostering creativity, driving progress, and achieving sustainable success in any endeavor (Lumpkin & Dess, 2001, Rauch et al., 2009, Al-Harthi, et al.2024).

Aroyeun, et al. (2018) and Panjaitan, et al. (2021) itemize the actions of competitively aggressive leaders to include:

- ▶ Market Positioning: They carefully position their products or services to stand out with a unique value proposition.
- ▶ Market Analysis: They continuously analyze the market and their competition to identify weaknesses, opportunities, and threats.
- ▶ Strategic Decision-Making: They make strategic decisions to gain an edge, such as through pricing, product differentiation, or market expansion.
- ▶ Resource Allocation: They allocate resources effectively to support competitive strategies, potentially increasing marketing, R&D, or operational efficiency.

Competitive aggressiveness impacts organisation in three main ways: These include:

- ⇒ *Competitive Advantage*: Competitive aggressiveness can lead to a competitive advantage, better profitability, and a larger market share.
- ⇒ *Improved Performance*: Companies that demonstrate competitive aggressiveness often perform well, especially in turbulent environments.
- ⇒ *Proactive Market Approach*: Entrepreneurial leaders with competitive aggressiveness do not just maintain market share; they actively seek to gain an advantage. (Onumah & Kairo, 2022, and Aroyeun, et al. 2018)

Performance of Private Universities

Private universities established by individuals or private organizations whose governance, funding and operations are principally determined by or through the owners/managers. The major role of private universities in Nigeria is training highly cultured human resources and abilities in the development of the human capital resource. According to Alshura & Al Assuli, (2017), the development of human capital is important for the social, economic and political development of a nation. The essence of the private universities is to provide knowledge, research, and community development. Al Karabsheh (2018) opines that universities are the embodiment of creating knowledge to citizens in every nation. For the fact the environment is highly turbulent and competitive, organizations are forced to develop effective strategies that may change or improved their performance. As globalization challenge both public and private institutions, private universities are, therefore, left with no option but to provide enabling the environment for quality service delivery in terms of effectiveness and alignment so as to attract the best students and reduce the rate of attrition.

The term performance has a different connotation as it is described by different authors. Performance is attached to the success of an organization's activity, even though activities and objectives vary according to organizations. Private universities stand to gain more prominence by budding and increasing their operational capabilities to meet the desired educational services and maintain a standard for quality improvement and control (Alshura & Al Assuli, 2017). Private universities are now surrounded by steep competitiveness with public universities, other private universities, online universities, corporate training programmes, and other alternative education providers. The capability of such private universities among others includes unit faculty and staff capabilities, measurement, assessment and leadership capabilities (Asif & Searcy, 2014).

Institutional performance in private universities could be measured through several indices. Hourani, & Abdali (2017), Yaakub, & Mohamed, (2019), King, (2024) itemize some of those key performance indicators to include:

1. Enrollment and Retention Rates: This includes the total number of enrolled students, year-over-year enrollment growth, student retention rates from one year to the next, and graduation rates.
2. Student Satisfaction: Metrics such as student satisfaction surveys, net promoter scores, and student feedback on campus life, academic programs, and support services.
3. Academic Quality: Indicators like student-faculty ratios, percentage of faculty with terminal degrees, research output and citations, and rankings/accreditations of academic programs.
4. Graduate Outcomes: Employment rates of graduates, average starting salaries, graduate school acceptance rates, and career placement success.
5. Financial Sustainability: Revenue sources (tuition, endowment, auxiliary services, etc.), net tuition revenue, operating margins, fundraising and donor engagement, and overall financial health.
6. Educational Access: Expand higher education capacity beyond what public institutions can provide, and help meet growing demand for tertiary education.
7. Economic Impact: Create direct employment opportunities, produce skilled graduate for the workforce and generate economic activities in surrounding communities.

Empirical Review.

Innovative Mindset and Organisational Performance

Motsi A., et al. (2024) did a study aimed to develop and validate an innovative leadership model for improving service delivery in urban local authorities. The prevalence of poor service delivery in urban local authorities motivated this study. The selected constructs of innovative leadership are innovative and creative thinking behaviour, risk taking and change oriented leadership, stakeholder participation, public administration core values, and service leadership. Data was collected using a survey approach from residents of Harare City Council, Zimbabwe. A structured questionnaire was used to collect 415 validated responses which were analysed using AMOS structural equation modeling (SEM) application. The innovative leadership model was confirmed and the study concluded that innovative and creative thinking behaviour, risk taking and change oriented leadership stakeholder participation, service leadership, and public administration core values, as constructs of innovative leadership, can go a long way on improving service delivery challenges in urban local authorities. As a result, the study validated and concluded the role of the constructs on service delivery challenges in urban local authorities. The study therefore recommends the adoption of the tested model as a plausible solution to service delivery challenges being faced by urban local authorities. This study has direct implications for leadership effectiveness within an organization because it highlights a number of meaningful factors that work together to facilitate organizational development. However, the use of purposeful sampling instead of random sampling coupled with a small sample size may significantly limit the generalizability of the findings.

Farhan, (2024) conducted a research to investigate the significance of visionary leadership and innovative leadership mindset on organizational sustainable development. The study investigates five case examples of business leadership to answer the research question of how the three-way interaction between visionary leadership, innovative leadership mindset, and business leadership approach may contribute to an organization's sustainable development. The main argument is that the three-way interaction is considerable for the continuous development of an organization. This study uses the purposeful sampling strategy that matches the aim of the study. Therefore, five case examples from five different industries (the technological industry, the airline industry, the mining industry, the banking industry, and the automotive industry) have been selected intentionally to understand the study argument and to gather information that will answer the research question. The analysis highlighted key qualities of visionary leadership, innovative leadership mindset, and the five leadership approaches. The study infers that the proper match between the performed leadership approach and the existing visionary leadership and innovative mindset can create a unique organizational identity that serves its differentiation and continuous development. The study has implications for improving innovative mindsets and visionary leadership because they develop organizational leadership uniqueness. However, the study has several limitations, so caution must be exercised in generalizing my findings to other organizations. The study relied partially on selected organizations' self-reports for their data, so some of those entities may have provided biased information in order to present their organizations in a positive way.

Competitive Aggressiveness and Institutional Performance

Panjaitan, et al. (2021) conducted a study on the effect of competitive aggressiveness on business performance: A case study of private universities in Indonesia. This study aims to examine the causal relationship between network capability, knowledge creation, innovativeness, competitive aggressiveness, and business performance of private universities. One model is proposed to test the role of competitive aggressiveness as a mediating variable. The population is lecturers at the 10 best private universities in East Java, Indonesia. Analysis by SEM, on 230 respondents, using random sampling method. The results show that the model is accepted, and competitive aggressiveness is proven to be a positive mediating variable in the relationship of network capability, knowledge creation, innovativeness, and business performance. The results also show that knowledge creation, and innovativeness, have an effect on competitive aggressiveness, while network capability has no effect. The research implication is that management should encourage lecturers and organizations to be more productive in conducting research and writing articles published in reputable journals, this will increase the ranking of universities.

Bii, et al (2023) conducted a study to assess the effect of competitive aggressiveness on performance of star rated hotels in North Rift Region, Kenya. The study was grounded on stakeholders' theory. This study relied on explanatory research design based on samples drawn from across the star rated hotels in North Rift Region. The target population was 575 hotel employees. Data was collected by use of self-administered structured questionnaire and was analyzed by use of both descriptive and inferential statistics using SPSS version 25. The findings showed that competitive aggressiveness significantly affects performance of star

rated hotels. Competitively aggressive star rated hotels are more likely to improve their competitive positions, market share, and increase their performance if they transform themselves and evolve with the times. Basing on the stakeholder theory, for competitive aggressiveness the hotels have to be incarnate of forward looking and opportunity seeking strategies in anticipation of future trends and demands of the stakeholders to capitalize on their performance.

Theoretical Review

Schumpeter's Theory of Innovation proposed in 1934 by Joseph Alois Schumpeter who was regarded as one of the greatest economists of the first half of the twentieth century. Schumpeter believed that for entrepreneurs to make a profit, they need to be innovators. In his opinion, innovation was one of the main driving forces of competitiveness and economic development (Malerba, & McKelvey, 2020). An innovative mindset in entrepreneurial leadership is supported by theories that emphasize creativity, opportunity recognition, adaptive thinking, and transformational influence. Leaders who integrate these principles foster cultures of continuous innovation and agility. Schumpeter's Theory of Innovation highlights the transformative power of entrepreneurial activity and innovation in driving economic development and reshaping industries through the process of creative destruction (Schumpeter, 1934).

Competitive Dynamics Theory, as articulated by Chen and Miller (2012), examines how firms engage in strategic actions and counteractions in competitive environments. This theory is built on earlier competitive rivalry research (Porter, 1980; Smith et al., 2001) but emphasizes micro-level interactions between competitors, focusing on action-response cycles and the behavioral drivers of competitive moves. The theory emphasizes the importance of dynamic capabilities, which enable firms to sense changes in the competitive environment and adapt their strategies accordingly. Firms with strong dynamic capabilities can better navigate competitive dynamics (Ying-Kai, & Ridhotullah, 2024).

Methodology

This study applied a causal research design in investigating direct cause-and-effect relationship among exogenous constructs of Innovative Mindset and Competitive Aggressiveness, and Performance. The population of the study comprised all 2556 senior members of staff of private universities (both academic and non-academic) in the North Central region, from which a representative sample of 346 was drawn using the Yamane (1967) formula for finite population, and subsequently inflated by 10% to accommodate non-response. The sampling technique adopted was the simple random sampling, with which a closed-ended questionnaire was administered, via a cross-sectional survey across the study area. The questionnaire was design based on the 5-point Likert response format, and was administered electronically using the KoboToolbox platform (<https://ee.kobotoolbox.org/x/cacakFRU>). The data collection process lasted a period of one month. Data analysis was conducted using Partial Least Square Structural Equation Modelling (PLS-SEM) carried out with the help of the SmartPLS statistical software.

Results and Discussion

Out of the total of 346 questionnaire copies administered in the study, 293 were determined to be well filled and valid for further analysis (data collection was stopped at the cut-off point of 293 as per the determined sample size). The final number of response sets obtained was satisfactory, given that this was below the necessary sample size threshold of 346 previously determined as suitable. The PLS-SEM analysis carried out involved both measurement model assessment and structural model as suggested by Ringle et al. (2024). Measurement model assessment was necessary to confirm the accuracy of the relationship between indicators and their underlying constructs. This involved test for indicator reliability, internal consistency, and validity using both Average Variance Extracted and Heterotrait-Monotrait Ratio (HTMT). Indicator reliability, internal consistency and convergent validity information are shown in Table 1.

Table 1

Indicator Reliability, Internal Consistency and Convergent Validity Statistics

Construct	Items	Loadings	CA	CR	AVE
Competitive Aggressiveness	CA1	0.747	0.776	0.856	0.597
	CA2	0.787			
	CA4	0.787			
	CA5	0.769			
Innovative Mindset	INM3	0.743	0.779	0.813	0.592
	INM4	0.802			
	INM5	0.762			
Performance	PER2	0.804	0.713	0.803	0.576
	PER3	0.749			
	PER6	0.721			

Note. Extracted from SmartPLS Output.

Hair et al. (2022) recommends a 0.708 threshold for indicator loadings and 0.7 for internal consistency reliability. All constructs were confirmed to meet these criteria given their satisfactory computed. To ensure indicator reliability, all indicators with low loading values (INM1, INM2, PER1, PER4 and PER5) were deleted.

Convergent validity was also confirmed for the measurement model by high AVE values (> 0.5). The results demonstrated a high level of convergent validity; AVE values of at least 0.5 indicates sufficient convergent validity, meaning that a latent variable can explain at least half of the variance of its indicators on average.

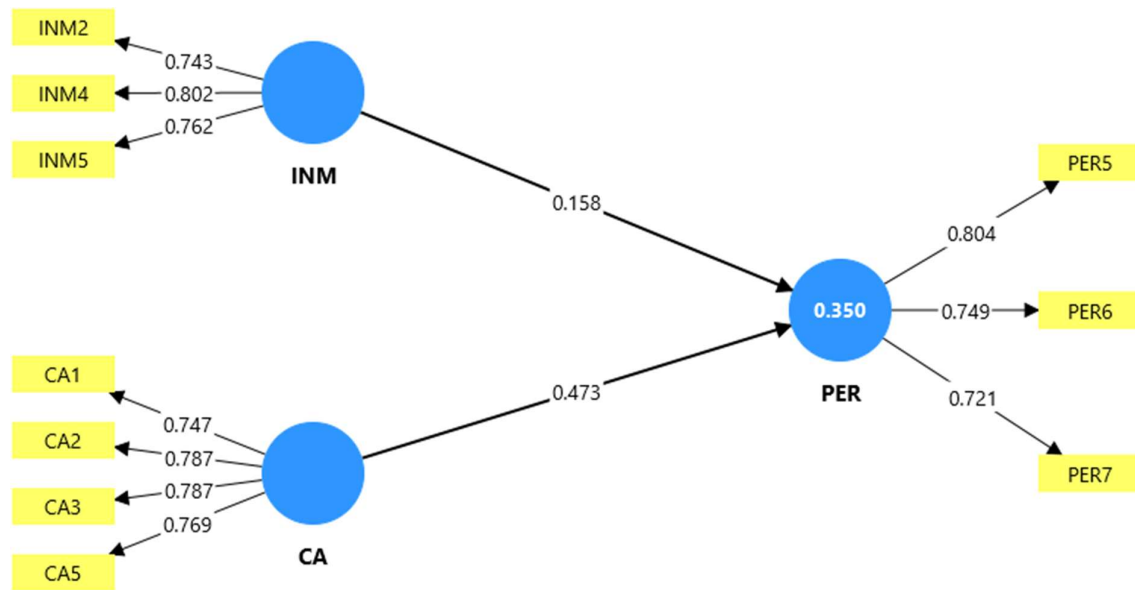
Table 2 shows the discriminant validity result. The cross-loading analysis suggested that the loadings of indicators should be greater than the loadings of other constructs, indicating discriminant validity (Fornell & Larcker, 1981). The results demonstrated excellent discriminant validity, as the indicators of the constructs are higher than that of other constructs. This indicates that the constructs have adequate discriminant validity.

Table 2: *Cross-loadings Discriminant Validity*

	CA	INM	PER
CA1	0.747	0.572	0.412
CA2	0.787	0.534	0.405
CA3	0.787	0.545	0.494
CA5	0.769	0.454	0.470
INM2	0.475	0.743	0.336
INM4	0.504	0.802	0.393
INM5	0.586	0.762	0.374
PER5	0.494	0.361	0.804
PER6	0.422	0.368	0.749
PER7	0.400	0.364	0.721

Note. Extracted from SmartPLS Output.

Table 2 presents the VIF result, indicating not multicollinearity given the VIF values are below 4. The overall effect size measure for the structural models, indicated that 5.9% change in performance is due to change in competitive aggressiveness and innovative Mindset. The f-squared showed that competitive aggressiveness and innovative Mindset have significant effect on performance of private universities. Based on the result of the SRMR the model is a good fit model since SRMR is below the threshold of 0.08 which is 0.079. The Q^2 was estimated by the blindfolding method. The values of the Q^2 are 0.037 indicated that since they are greater than zero, they have predictive relevance for this study.

**Figure 1:** *Estimated Path Model of the Study*

The estimated path model is illustrated in Figure 1, achieved via a bootstrapping process involving 5,000 subsamples. The estimated model shows direct path causal relationship between the two exogenous constructs (Innovative Mindset and Competitive Aggressiveness) and the endogenous construct (Performance).

Table 3
Structural Fitness Indices

Construct	Items	VIF	R ²	f ²	Q ²	SRMR
Competitive Aggressiveness	CA1	1.496		0.186		
	CA2	1.657				
	CA4	1.484				
	CA5	1.456				
Innovative Mindset	INM3	1.274		0.021		
	INM4	1.327				
	INM5	1.249				
Performance	PER2	1.297	0.350		0.332	0.070
	PER3	1.243				
	PER6	1.207				

Note. Extracted from SmartPLS Output.

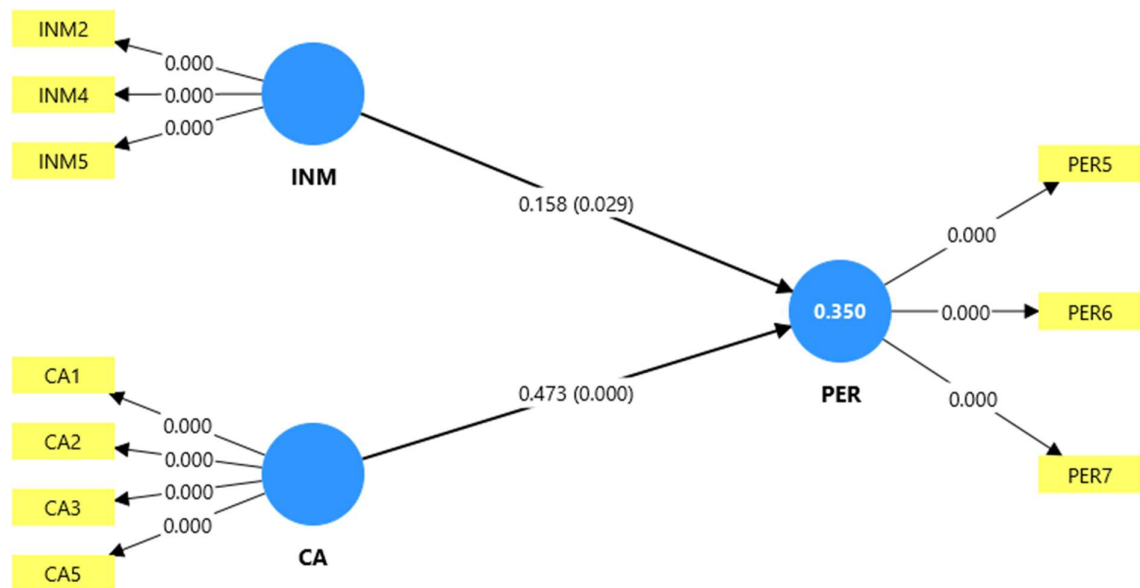


Figure 2: PLS-SEM structural model

Table 4: PLS-SEM Result

Variables	β	Std err	t-test	P-value	Decision
INM -> PER	0.158	0.072	2.189	0.029	significant
CA -> PER	0.473	0.071	6.699	0.000	significant

Note. Extracted from SmartPLS Output.

Results and Discussion of Findings

Table 4 shows that all the null hypotheses were rejected using an alpha value of 0.05. Estimated results showed that Innovative Mindset has a positive and significant relationship with performance of private universities in North Central Nigeria at 5% level of significance, with values of ($\beta = 0.158$, $t = 2.189$, $p = 0.029$). This implies that increase in innovative mindset will bring about increase in performance of private universities in North Central Nigeria. This finding does agree with the study of Samsiah, et al., (2024) which indicated that the dimensions of vision and mission, innovation and creativity, competitive aggressiveness and similar factors can predict entrepreneurial leadership in the context of private universities.

Secondly, it was found that competitive aggressiveness has a significant and positive relationship with performance of private universities in North Central Nigeria with ($\beta = 0.473$, $t = 6.699$, $p = 0.000$). This implies that competitive aggressiveness does strongly determine the performance of private universities in North Central Nigeria. This conclusion is consistent with the study by (Panjaitan et al. 2021) who found that competitive aggressiveness affects business performance at private universities in Indonesia. In a related study, Yaakub, & Mohamed, (2019) posited that higher education industry in Malaysia then was facing challenges and intense competition as a result of liberalization, hence advocate the pursuance of the best competitive strategies to ensure sustainability.

Conclusion and Recommendations

The private universities in Nigeria today are facing challenges and intense competition. The findings of this study highlight that innovative mindset and competitive aggressiveness are integral dimensions that contribute to the formation of entrepreneurial leadership. The materialization of entrepreneurial activities has become popular worldwide in the past decades, and promoting entrepreneurial spirit has become a social phenomenon which is considered as a solution for stimulating economic growth and innovation. The effect of globalization has evidently increased pressure and competition in all sectors including Higher Education Institutions. Hence, the agitation for them to engage in entrepreneurial activities to entice discipline, encourage entrepreneurial behaviour and also improve performance. This study provides insights and awareness to leaders in private universities to have better understanding of the needs required to create competitive advantage, manage and improve their performance and efficiency. It is hence recommended that private universities in North Central Nigeria should:

1. *Cultivate positive innovative mind-set:* The effect of globalization has evidently increased pressure and competition in all sectors including higher education institutions. Hence, the agitation for them to engage in entrepreneurial activities to

entice discipline, encourage entrepreneurial behaviour and also improve performance. Leaders in private universities in North Central Nigeria should ensure that appropriate leadership style which focuses on innovative, creative, resilient and a dynamic organizational environment. By adopting this more systematic approach, private universities will transition from generating occasional innovative ideas to building a culture of continuous innovation within the team. This will result in a more agile operation, a stronger pipeline of new solutions, and a sustained competitive advantage.

2. *Leverage technology as a competitive weapon:* Outpacing competitors in technological infrastructure can be a decisive factor for tech-savvy students and faculty., hence private university leadership is encouraged to aggressively invest in a superior digital infrastructure, since a modern, reliable, and user-friendly digital experience (from online application portals to learning management systems and digital libraries) is a key battleground. The study also recommends private university leaders should foster an internally competitive culture by encourage deans and heads of departments to view other departments and rival institutions as benchmarks, fostering a culture of healthy internal competition that drives overall institutional performance.

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