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Institutional Capacity and Grant Success: A Mixed Methods Study of Grant Management in Nigeria

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ABSTRACT

Institutional capacity is a key determinant of grant acquisition and effective grant management, especially in low- and middle-income countries where research productivity is limited by systemic constraints. This study investigated the influence of institutional capacity on grant success among Nigerian higher education institutions using a mixed methods approach. Quantitative data were collected through an online survey of 495 participants, while qualitative insights were obtained through open-ended responses. Correlation and regression analyses revealed a positive and statistically significant relationship between institutional capacity and grant success ($r = 0.155$, $p < 0.01$), although funding availability was a stronger predictor. The qualitative findings revealed persistent barriers to grant acquisition and management, underscoring the importance of strengthening institutional systems to enhance sustainable grant success.

Keywords: grant management, higher education, institutional capacity, mixed methods

INTRODUCTION

Across the international research landscape, the strength of an institution's capacity has become a critical driver of both successful grant acquisition and the effective management of such research grants (Harste et al., 2021; Vicente-Crespo et al., 2021). It refers to the governance, infrastructural, financial, and human resources an organization employs to achieve its mission (Aboh & Barnie, 2023). In the context of research funding, it refers to a university's ability to identify funding sources, write competitive proposals, maintain partner relationships, and manage awarded funds (Kalbarczyk et al., 2021). Transparent governance, an efficient Research Management Office (RMO), a well-organized environment for research and a capable grant manager are usually predictors of an increase in the rate of grant submissions and successful project implementation (Strekalova et al., 2023). However, organizations with substandard systems experience delayed distribution of funds, hitches with compliance, loss of reputation, and reduced rates of success (Igiri et al., 2021). A recent mixed-methods analysis of a public university in Uganda similarly revealed that unstable and inadequately ring-fenced government subvention undermines research output, underscoring that predictable core funding, not capacity alone, remains a prerequisite for research-intensive performance (Joshua & Arinaitwe, 2026).

Internationally, it has been shown that organizations with robust internal support systems, in contrast with those with weaker support systems, are more consistent in obtaining and managing research funds (Harste et al., 2021). Studies by Hashiguchi et al. (2024) and Vicente-Crespo et al. (2021) revealed that systemic mechanisms, as opposed to an individual researcher's expertise, determine the success of a grant. For example, universities with mentorship programs, internal peer review systems, and specialized RMOs are more likely to succeed with their grants (Kalbarczyk et al., 2021). Although Nigeria is among the countries in Africa with the greatest institutional structure and a fast-growing number of researchers, its institutions still face administrative challenges that hinder them from being able to apply for grants (Aboh & Barnie, 2023; Igiri et al., 2021). A study by Aguboshim et al. (2021) identified chronic funding shortages, a volatile policy structure, inadequate facilities, bureaucracy, and a reliance on individual effort for research output rather than institutional support as some of the common issues hindering grant application. Many institutions lack functional RMOs or comprehensive grant management policies, and those that have them are often under-resourced and staffed by untrained individuals (Aboh & Barnie, 2023).

Studies have identified three aspects of institutional capacity capable of influencing grant success (Harste et al., 2021; Kalbarczyk et al., 2021; Strekalova et al., 2023). These aspects include individual capacity, which notes the need for qualified grant managers, accounting personnel, and advisors; administration and management, who explore the significance of institutional commitment to research, which is strengthened by an academic framework; and formal systems, which consist of research regulations, ethical boards, and auditing frameworks that guarantee compliance and transparency. This finding is consistent with a recent integrative review, which revealed that durable research capability in teaching-oriented universities depends on institutional alignment across research leadership, management, supervision, and evaluative feedback rather than on isolated training interventions (Sangwa et al., 2026).

While awareness of these factors is growing, few empirical studies have investigated the impact of institutional capacity on grant success in Nigerian universities. The literature primarily offers qualitative descriptions of individual administrative issues without substantial proof of the association between grant outcomes and institutional characteristics (Aboh & Barnie, 2023; Igiri et al., 2021). In another study by Uneke et al. (2023), they reported that investing in grant management intervention without knowledge of

the precise institutional capacity factors significantly improved the acquisition of grant limit evidence-based decision-making and the appropriate allocation of resources. This study aims to fill this gap by using a mixed-method approach to investigate the impact of institutional capacity on grant acquisition and management in Nigerian universities. Quantitative research is used to examine the relationships between institutional characteristics such as the presence of RMOs, staff training initiatives, and financial systems and the measurement of grant outcomes, such as the submission rate, success ratio and record of compliance. The qualitative approach explores how institutional culture, leadership priorities, and external partnerships influence researchers' experiences.

LITERATURE REVIEW

Academic productivity and institutional ranking are often predicated on research productivity and are typically measured by scholarly outputs such as publications in peer-reviewed journals and conference proceedings (Uwizeye et al., 2022). One of the purposes for establishing a university is to advance knowledge through quality research, with the goal of providing solutions to challenges (Faborode, 2016). However, research productivity in Nigeria has been consistently reported to be low compared with global standards, largely because of inadequate funding and an unconducive research environment (Ladipo et al., 2022). According to Harsh et al. (2023), institutional capacity within higher education refers to the support provided by the University for early career researchers' professional growth in creating quality and locally relevant research. According to Falola (2020), such support includes mentorship, publication support, international collaboration and training to improve staff capacity for research, whereas Okocha-Ojeah et al. (2026) reported that these initiatives are significant determinants of academic staff productivity.

Studies have reported that the effectiveness of lecturers who are in a conducive environment where institutional support is given a better function and that the goal of the institution also positively affects their effectiveness (Baro et al., 2017; Igiri et al., 2021. Okiki, 2013) The support, which includes good management, well-equipped research facilities, incentives and financial resources, all impact research productivity (Emojorho et al., 2022; Igiri et al., 2021; Okiki, 2013). This implies that it is difficult for lecturers lacking institutional support to meet global standards (Atah et al., 2024). This is further supported by Okiki (2013), who stated that administrative support, especially research support, is key in advancing a university's system and its ability to gain global recognition. Although Falola et al. (2020) agreed with the assertions by Okiki (2013), the authors pinpointed the place of technical support. Baro et al. (2017) reported that several academic staff members are unable to execute their research effectively because of insufficient funding. Igiri et al. (2021) extended the study and reported that many rely on personal money to carry out their research, without financial support from an institution or the government. All these assertions further bolster the role of institutional support in grant success and the productivity of its academics.

Beyond funding, another important factor of institutional capacity is academic capacity building. Dahir et al. (2025) reported that activities such as conferences, student mentorship, and the use of electronic information resources influence research productivity. Igiri et al. (2021) reported a lack of mentorship and training as a major institutional challenge limiting grant success (Igiri et al., 2021). Digital technology has aided in research collaboration and access to information. According to Kalaiappan and Rajasekar (2017), different digital platforms, such as Academic Hive, Google Scholar, Research Gate, LinkedIn, ORCID Account, Scopus, and Author Aid, have improved access to grants and strengthened collaboration. Idika et al. (2023) extended the digital technology argument by underscoring its effectiveness in enhancing research collaboration across academic departments.

Akpan et al. (2016) emphasized that the success rate of securing grants among academic staff is often hindered by rigorous procedures and insufficient funding. They proposed that increased funding, predominantly for research, proper appropriation of funds by the administration, and adequate information about grants could increase the success rate of grant winning. Sehlaoui et al. (2021), however, cautioned that more money may not always improve productivity among staff but proposed that a high workload

reduces lecturers' time to write a compelling grant proposal. Similarly, Dahir et al. (2025) reported that administrative and teaching responsibilities reduce lecturers' time for publication and collaboration. These studies suggest that reducing workload may be a more effective means to enhance research productivity than increasing funds alone.

Despite the increased funding available to universities, the management of such funds is just as crucial as acquiring it. Earlier studies, such as Bako (2005), indicated that university administration occasionally withholds or redirects research funding, with a larger share of university income allotted to wages, resulting in a minimal budget for research. Recent studies suggest that similar institutional inefficiencies still persist. For instance, some lecturers do not obtain adequate funds, while some do not have access to research funds even after the funders have disbursed the funds to their institutions. Another example is insufficient funding, occasionally preventing academics from carrying out quality research or from publishing in reputable Scopus-indexed journals because most of these journals have high article processing fees that underfunded lecturers cannot typically afford (Atah et al., 2024).

University administration's priority in research shapes lecturers' commitment to research. Ladipo et al. (2022) reported that lecturers' research commitment is largely affected by the university authority's choice to either prioritize or neglect research funding. This suggests that academic staff members find it easier to commit their time and energy to research when they are aware that they are not required to use their funds. Isabu (2025) strengthened this argument when they claimed that failure to fund research projects and other relevant academic programs has an impact on students' intellectual development and lowers the institution's international standing. These findings suggest that institutional capacity in the area of effective administration plays a significant role in reducing the research output of its academic staff.

Politics in allocating grants fairly have been observed among university research committee members. Baro et al. (2017) reported that more often than not, the recipients of grants seem to be skewed toward senior academics, excluding junior academics. The majority of the grant recipients are professors, associate professors, readers, university librarians, college librarians, and senior lecturers. These findings corroborate the findings of Baro et al. (2013), who asserted that those who benefit from research grants in Nigerian institutions are mostly Professors and PhD holders, while people with lower degrees are frequently not considered. Lower staff members are therefore encouraged to collaborate with senior staff members and Librarians to benefit from research grants.

Findings from the literature have revealed that the factors influencing grant success are multidimensional. Factors such as a heavy workload, inadequate financing, administrative inefficiency, an unconducive environment, an obsolete research facility, and mentorship are predictors of research output at Nigerian universities. However, most existing studies are largely descriptive and do not examine the collective effect of these institutional factors on grant success. This study aims to bridge this gap by adopting a mixed-methods approach to comprehensively examine the impact of institutional capacity on grant acquisition and management in Nigerian universities.

RESEARCH METHOD

The study adopted a mixed-method approach to examine how institutional capacity impacts grant success in Nigerian universities and research institutes. This design allowed for simultaneous collection but separate analysis of both qualitative and quantitative data, which were employed to provide a robust understanding of the research problem. The quantitative aspect examines the relationships between institutional capacity indicators, institutional characteristics and grant success rates, whereas the qualitative aspect explores the lived experiences, perceptions, and contextual realities influencing grant acquisition and management.

A convergent parallel mixed-methods design was adopted for this study. This approach involves the concurrent collection of both quantitative and qualitative data, analyzing these datasets separately and then merging the results for interpretation (Creswell & Plano Clark, 2017). The quantitative aspect used a

survey to examine objective institutional characteristics and their relationship with measurable grant outcomes. Simultaneously, the qualitative aspect used open-ended questions in the survey to explore subjective experiences and contextual factors, such as institutional culture and leadership priorities, as perceived by the respondents. Both datasets were analyzed independently, and the findings were then integrated during the interpretation phase to provide a comprehensive understanding of the connection between institutional capacity and grant success in Nigerian higher education.

Participants

The study population included academic staff, research officers and other personnel actively involved in research across federal, state and private institutions, as well as research institutes in Nigeria. This diverse population was targeted because of its direct involvement and first-hand experience with research funding mechanisms and grant application processes, ensuring relevant and informed responses.

Purposive sampling was used to select respondents who had direct involvement in grant-related activities, ensuring that participants had the ability to contribute to the study's objectives. The online questionnaire link was disseminated across various institutional electronic platforms, including official email lists, research networks, and academic forums, to reach the targeted population. A total of 495 valid responses were obtained for the study. This sample size was deemed sufficient for both regression and correlational analyses, which typically require a minimum of 150 observations to detect moderate to strong associations with acceptable precision (Bujang, 2024).

Instrument

Data were collected using structured online questionnaires designed on Google Forms. The instrument contained three segments: a quantitative section and closed-ended questions answered on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). These questions assessed various indicators of institutional capacity, leadership support, administrative efficiency and self-reported grant success rates. The qualitative section included open-ended questions structured to collect responses for qualitative insights into respondents' experiences, perceptions, and contextual realities concerning grant success and management within their institutions, as well as the demographic section, which included the respondent's information, such as discipline, academic rank and other pivotal information. The instrument underwent a pilot test with 12 research volunteers to ensure the clarity, relevance, and appropriateness of the questions. Feedback from this pilot test revealed minor adjustments to the survey wording and structure. The 12 research participants were purposely selected since they had similar traits to those of the targeted respondents, being grant managers, principal investigators, and researchers in their respective tertiary institutions. Therefore, they were considered appropriate for evaluating the effectiveness of the questionnaire.

Data Analysis

The quantitative data collected were cleaned, checked for missing data and analyzed using SPSS V 20. Pearson's correlation analysis was used to determine the relationship between institutional capacity indicators and grant success. Multiple regression analysis was used to examine the predictive effect of administrative efficiency factors, such as turnaround time for approvals, clarity of research policies, and availability of financial reporting systems, on grant management performance in Nigerian institutions. On the other hand, the qualitative data were thematically analyzed following Braun and Clarke's (2006) six-step framework: becoming familiar with the dataset, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. Coding captured patterns

related to management experience and enabling institutional factors. Manual coding was used to organize the codes, cluster recurring ideas and derive major themes for the qualitative questions.

RESULTS

On the basis of the research questions, this section provides the findings of the study. The results are organized according to the key variables and themes investigated. Quantitative findings address the relationships among institutional capacity indicators, which include grant management structures, staff competency and leadership support and grant success rates, as well as the effects of administrative efficiency factors such as turnaround time for approvals, clarity of research policies, and availability of financial reporting systems on grant management performance in Nigerian institutions. Descriptive statistics (frequency counts, percentages and means) and inferential analysis, such as Pearson's correlation analysis, were used to analyze the quantitative data. However, the qualitative findings focused on descriptions of the lived experiences of administrators and academic staff with grant management processes, as well as the contextual challenges and enabling factors influencing institutional grant success in Nigerian universities.

Descriptive Statistics of Respondents and Institutions

This segment presents the participants' demographics, including institutional affiliation, duration of respondents' experience, rank as researcher, and the amount of grants received. The institutional affiliation of the respondents is shown in Table 1. Most of the participants were affiliated with universities (n= 417, 84.2%). Research institute participants made up 8.3% (n= 41) of the sample, while polytechnic and college of education staff accounted for 3.6% (n= 18) and 3.8% (n= 19), respectively.

Table 1
Institutional Affiliation of Respondents

Institution type	Frequency (n)	Percentage (%)
University	417	84.2
Research Institute	41	8.3
Polytechnic	18	3.6
College of Education	19	3.8
Total	495	100.0

Table 2
Participants' Institutional Years of Experience in Research

Years of experience	Frequency (n)	Percentage (%)
Less than 1 year	81	16.36
1–3 years	214	43.23
4–6 years	91	18.38
7–9 years	11	2.22
10 years and above	98	19.80
Total	495	100

Table 2 shows the institutional years of experience in research. Most of the participants had 1–3 years of research experience (n= 214, 16.36%), followed by those who reported 10 years and above (n= 98, 19.80%) and 4–6 years of experience (n= 91, 18.38%). The lowest percentage of responses (11 (2.22%)) was 7–9 years.

Table 3
Grant Size obtained by Researchers

Grant Size ($)	Frequency (n)	Percentage (%)
24,000 below	275	55.56
25,000-99000	65	13.13
100,000-249,000	19	3.84
250,000-499,000	14	2.83
500,000 above	62	12.53
Others	60	12.12

Table 3 shows the grant size obtained by the respondents. The majority of the participants received grants less than $24,000 (n= 275, 55.56%), whereas 13.13% (n= 65) received grants ranging from $25,000–$99,000; 3.84% (n=19) received between $100,000 and $249,000, and 2.83% (n= 14) obtained between $ 250,000–$499,000 grants. A total of 12.53% (n= 62) and 12.12% (n=60) received grants above $ 500,000 and other unspecified grant sizes, respectively.

Research Questions Analysis

The question of the relationships between institutional capacity indicators (e.g., grant management structures, staff competency, and leadership support) and grant success rates in Nigerian universities was addressed using Pearson correlation analysis and simple linear regression analysis on data from 495 participants across Nigerian universities and research institutions. Table 4 presents the Pearson correlation results for the relationship between institutional capacity and the grant success rate.

Table 4
Correlation Analysis between Institutional Capacity and the Grant Success Rate

		Grant Success Rate	Institutional Capacity
Grant Success Rate	Pearson Correlation	1	.155**
	Sig. (2-tailed)		.001
	N	495	495
Institutional Capacity	Pearson Correlation	.155**	1
	Sig. (2-tailed)	.001	
	N	495	495

Note. The correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation results show that there is a statistically positive significant relationship between institutional capacity and the grant success rate. Institutional capacity was moderately correlated with the grant success rate ($r = 0.155$, $p = 0.001$). These findings suggest that an increase in institutional capacity will result in a significant increase in the grant success rate among respondents. The significance level ($p < 0.01$) further corroborates that the existing relationship between these variables is implausible to have occurred on chance. To further bolster the predictive effect of institutional capacity on the grant success rate, a simple linear regression analysis was conducted. The results are presented in Table 5.

Table 5

Regression Analysis of Institutional Capacity and Grant Success Rate

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	3.113	.207	—	15.013	.000
Institutional Capacity	.206	.059	.155	3.482	.001

Note. Dependent Variable: Grant Success Rate R^2: 0.024

The simple linear regression results revealed that institutional capacity is a significant predictor of the grant success rate ($\beta = 0.155$, t = 3.482, p= 0.001). The unstandardized coefficient (B= 0.206) indicates that the grant success rate increases by 0.206 with a one-unit increase in institutional capacity, given that the other factors are constant. The model also shows that institutional capacity explains approximately 2.4% of the variance in the grant success rate ($R^2 = 0.024$). Although the model has low explanatory power, the statistically significant effect emphasizes the importance of institutional capacity in boosting the grant success rate among Nigerian universities and research institutions. The findings demonstrate that the grant success rate has a positive and significant relationship with institutional capacity. Institutions with stronger grant management structures, staff competency, and leadership support are more likely to achieve higher grant success outcomes.

Below, we address to what extent administrative efficiency factors (turnaround time for approvals, clarity of research policies, and availability of financial reporting systems) predict grant success in Nigerian universities.

Table 6

Regression analysis showing how administrative efficiency and fund availability predict grant success

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	.945	.259		3.652	.000
	Administrative efficiency	-.006	.062	-.004	-.100	.920
	Availability of Fund	.650	.057	.469	11.304	.000

Note. Dependent Variable: Grant success rate R^2: .219 Adjusted R^2: .216

The regression model accounted for a statistically significant proportion of the variance in the grant success rate, with $R^2 = .219$ and adjusted $R^2 = .216$, indicating that administrative efficiency and the availability of funds account for 21.6% of the grant success rate. The analysis revealed that the availability of funds had a positive statistically significant predictive effect on the grant success rate (B= .650, SE= .057, $\beta = .469$, t = 11.304, p< 0.001). This suggests that institutions with greater access to financial resources tend to experience a higher grant success rate. Administrative efficiency, on the other hand, had no significant effect on the grant success rate (B= -.006, SE= .062, $\beta = -.004$, t = -100, p= .920). The small coefficient value and insignificant statistics indicate that administrative efficiency does not have a direct effect on the grant success rate when the availability of finance is controlled for.

Thematic Analysis

The thematic analysis of how university administrators and faculty members describe their experiences with grant management processes revealed three main themes that describe the participants' experiences: (1) frustrations with bureaucratic delays and inefficiencies, (2) benefits of funding and structure when managed well, and (3) variable institutional support. Combined, the themes reflect a mixture of positive and challenging aspects in grant management, with frustrations predominating.

Frustrations with Bureaucratic Delays and Inefficiencies

This theme was the predominant theme highlighted by most participants. The participants reported grant management as a hindrance because of its slow and cumbersome process. Other participants described administrative bottlenecks, often translated into prolonged approval timelines, as influential factors contributing to delayed access to funds. Some of the respondents' comments include the following:

"*The existing grant management proved to be more of bottleneck in accessing the fund released as the bureaucracy encumbered timeliness of* deliverables."
"The bureaucratic process is an issue"
"The bureaucracy, it causes a lot of setbacks"
"Internal bureaucratic delays often hinder accessibility of funds. This affects project timelines to a large extent."

This theme demonstrates how bureaucratic challenges result in loss of momentum and wane research productivity.

Benefits of Funding and Structure When Well Managed

In contrast to many reported challenges, participants acknowledged the positive impact of when funding is properly managed. A well-structured grant management system was reported to be associated with timely disbursement of funds as well as smoother projects. Some comments from the responses further corroborate this:

"*Grant management has positively enhanced my research productivity with the provision of enough funds at the appropriate* time."
"*It was approved promptly, and the fund was also promptly released, and the project was conducted within the stipulated time.*"
"*Delayed disbursement of money affected our timelines*"
"Many times, grant management made things a bit difficult such that I was not able to make the deadline, which automatically made me unable to submit a paper or missed to enter a competition."

The theme emphasized the role of grants in promoting research productivity.

Variable Institutional Support

The participants described their experiences with institutional research support as poor and weak to positive and awesome. Support was reported to be uneven and frequently inadequate. This variability results in unequal grant management experiences among researchers and academic staff.

"*Top administrators are unwilling to sponsor/fund research or release adequate funds even when it is highly needed at a point to address* situations."
"*My experience with institutional research support has been positive in terms of access to funding information, proposal guidance, and mentorship opportunities. The research office provides helpful resources and advice during the pre-award phase. However, post-award support could be stronger, particularly in areas like financial management, reporting, and communication between administrative and research teams. Strengthening these areas would make the support more seamless and efficient.*"

With respect to what contextual challenges and enabling factors influence institutional grant success in Nigeria, the thematic analysis findings demonstrated that grant success is influenced by a combination of contextual challenges and enabling factors. Responses from participants were organized into two broad categories: challenges (negative influences) and enabling factors (positive influences). Each category contains three themes each.

Challenges (Negative Influences)

Bureaucratic and Administrative Inefficiencies

This challenge ranked highest, as many participants commented that the lengthy approval process, delay in disbursement of funds, and cumbersome administrative requirements hindered their project timelines. Delayed funds were particularly problematic, as some researchers had to self-fund their project to meet up with academic calendars or seasonal conditions. Participants wrote:

> *"The grant management system itself became more of an obstacle than a support, with bureaucratic bottlenecks in accessing released funds directly compromising the timeliness of project deliverables"*
> *"The grant was helpful overall, but the application and implementation stages themselves were slow, and institutions sometimes appeared reluctant to release funds even after approval".*
> *"Administrative bottlenecks and internal bureaucratic delays repeatedly restricted access to funds, affecting project timelines to a considerable extent".*
> *"Disbursement of funds was delayed, and that delay affected our timelines directly. If anything, this kind of delay has come to feel like a routine part of the process rather than an exception".*

Poor financial control, rigid budgeting systems, and inflation all compound the effects of the challenges faced. Favoritism was also raised by some participants, as stated by one participant: "*Criteria for disbursement should be given by donors and recipient institutions to avoid favoritisms*". This resulted from the perception that senior academic staff are usually favored over early-career researchers. These factors collectively weaken grant competitiveness.

Inadequate Infrastructure and Resources

Unreliable internet connectivity, poor power supply, and a lack of research equipment were reported by participants as factors culminating in poor proposal preparation, online grant submissions and effective project implementation. A lack of cutting-edge equipment was perceived to reduce competitiveness, especially when individuals were competing with better-resourced institutions

> *"Inadequate internet connectivity, communication gaps, and bureaucratic delays hindered my research productivity, making it difficult to carry out research activities efficiently."*
> *"Limited financial and material resources made it difficult to meet the practical requirements of the research. The cost of purchasing essential research materials, conducting laboratory analyses, and accessing appropriate research facilities placed considerable constraints on the effective implementation of the study."*
> *"The delayed availability of financial resources restricted the team's capacity to proceed with the planned research activities such as the procurement of research equipment, which affected the timely implementation of the project."*

Limited Access and Equity Issues

Inadequate access to grant opportunities and equity-based challenges was highlighted as another prominent issue. Early-career scientists and private institutions often miss out on government-funded grants. Certain participants also reported assessment as being biased, with comments such as "*Assessment criteria, sometimes decisions are made out of a biased mind*" reflecting the participant's opinion. This is believed to undermine fairness and transparency in grant allocation.

"Access to funding was not always determined by merit alone. In my case, a grant application was turned down on grounds that appeared linked to ethnicity rather than the quality or relevance of the proposed research, raising concerns about fairness in the allocation process."
"Eligibility requirements excluded me before I could even apply. The institution where I lecture does not qualify for TETFUND support"
"Access to funding was inconsistent and depended heavily on the type of grant being applied for. Some categories of researchers were well supported, while others, often equally deserving, had far fewer opportunities available to them."
"Grant management remains an unfamiliar process to me, as I have had no direct engagement or experience with it."
"The conditions attached to some grants were too stringent to meet in practice,"

Enabling Factors (Positive Influences)

Training, Mentorship, and Capacity Building

Among the enabling factors that positively impact institutional grant success, training, mentorship and platform-to-build capacity ranked highest. Training specifically targeting grant writing, budgeting, and project management jointly improved proposal quality and compliance with funders' requirements. Mentorship, especially for early career researchers, was described as pivotal in building confidence and navigating complex grant processes. Institutions that have structured mentorship programs were perceived to be better positioned to support staff throughout the grant process.

"The grant writing training helped me prepare stronger proposals and avoid common mistakes."
"Having a mentor gave me confidence and made the grant application process much easier to understand."
"Our mentorship program has helped new researchers learn from experienced staff and improve their chances of getting funding."

Digital and Technological Upgrades

The responses from participants demonstrated that digital infrastructure is essential for improving institutional efficiency. Digital tool upgrades were identified as essential facilitators of grant success. The participants highlighted the benefits of centralized electronic grant management systems, automated workflows and real-time reporting. These systems improved transparency, reduced manual processing and shortened approval times.

"Since we started using the online grant system, tracking applications have become much easier and faster."
"The automated approval process has reduced paperwork and helped us submit grants on time."
"Real-time reporting has improved transparency because everyone can see the progress of a grant without waiting for updates."

Policy and Administrative Reforms

Policy and reforms were highlighted as critical enablers of grant management when properly implemented. Participants suggested that reforms addressing rigid financial regulations and aligning grant management policies with Nigeria's economic realities, which include inflation and exchange rate fluctuations, would significantly improve institutional grant success.

> *"Funds are often released on the basis of how much of a prior allocation has already been used, rather than actual project needs, and the resulting delays cause real losses. Tying disbursement to project timelines instead would likely reduce this."*
> *"Some grants withhold part of the approved funds while still expecting deliverables by an unrealistic deadline. Aligning the disbursement schedule with the deadline would make this more workable."*
> *"TETFUND eligibility excludes researchers at institutions that do not qualify, regardless of merit. Revisiting this criterion could open funding to researchers currently shut out on institutional, not academic, grounds."*

DISCUSSION AND CONCLUSIONS

Discussion

This study explored how institutional capacity influences grant success in Nigerian universities and research institutes using a mixed-method approach. The findings show that institutional capacity is one aspect related to grant success. Institutional capacity, along with individual research skills and other contextual factors, can influence grant success. This positive correlation implies that institutional variables may contribute to a higher success rate of the grants. This suggests that a weak system and an unconducive environment for researchers impede the grant success rate.

Further examination of the quantitative models provides additional insights into the relative impact of institutional capacity versus funding availability in determining the likelihood of grant success. Institutional capacity accounts for approximately 2.4% of the variation in grant success (R^2=0.024), which means that although the independent contribution of institutional capacity may be small, it is statistically significant nonetheless. Funding availability and administrative efficiency, on the other hand, account for 21.9% of the variation (R^2=0.219), and funding availability emerges as the sole statistically significant predictor in this particular model. Therefore, it is reasonable to state that funding availability has a greater effect on the probability of grant success than institutional capacity does. Nevertheless, this fact does not mean that institutional capacity is unimportant because adequate funding is likely to have positive effects on the success of grants only when institutions have appropriate governance, supportive leadership, effective management of funds, and research capabilities.

Even though the explanatory power of the regression model was low, the significance of the relationship corresponds with the findings of previously published studies in the LMIC context, which assert that institutional systems, rather than individual effort alone, contribute largely to the competitiveness and sustainability of the grant (Adane et al., 2024; Harste et al., 2021; Vicente-Crespo et al., 2021). While the regression model is low, it is not unexpected, as several other outcomes contribute to grant success, in addition to internal factors, such as external funders' priorities, international collaboration and geopolitical agendas. Given this context, the statistically significant association observed holds, implying that institutional capacity, but not limited to it, is a statistically significant, but modest, predictor of grant success.

Even though the model accounted for only a fairly small proportion of the variance in obtaining grants, this does not mean that institutional capacity is insignificant. In contrast, this is due to the multivariate nature of obtaining grants, as there are many other institutional, individual, and external

determinants of grant success other than the variables captured in the quantitative analysis. Such determinant variables include researcher experience, publications, subject area, quality of grant proposals, collaboration networks, donor priorities, availability of funds, and research agendas nationally and internationally. Thus, this explains why the regression model had limited explanatory power in predicting grant success because of the complexity of the entire process of grant funding. However, the statistical significance implies that institutional capacity remains relevant in determining grant success, as supported by the findings of other studies, such as those of Harste et al. (2021) and Vicente-Crespo et al. (2021).

The qualitative findings of this study provide in-depth explanations for the quantitative results by revealing how participants' experiences reveal the role played by institutional capacity in practice. Participants' responses indicated that bureaucratic delays and administrative inefficiencies were commonly perceived as important barriers to grant success. Delayed approvals, slow allocation of funds, rigid budgeting systems and favoritism all reflect an ineffective administrative subsystem. These findings agree with earlier studies reporting that most institutions lack structured grant management policies, which often make it difficult for individuals to secure grants (Aboh & Barnie, 2023). Similarly, Igiri et al. (2021) affirm that institutions may frequently be faced with financial reporting, procurement issues, and issues aligned with the requirements of donors. This study extends prior work by demonstrating that weakness in institutional capabilities may be perceived by participants as obstacles to acquiring and managing grants.

Beyond administrative challenges, infrastructural inadequacies, including unstable internet connections, limited access to up-to-date research equipment, and poor power supply, emerged as significant infrastructural barriers to grant success. Nigerian institutions have been positioned at a disadvantage as a result of such infrastructural inadequacies. Researchers reported that these limitations made proposal preparation, online submissions, and research management more challenging. This has also affected competitiveness with better-resourced institutions. These findings are consistent with those of Idika et al. (2023), who emphasized the effect of digital and physical infrastructure on research productivity and collaboration, and another study by Fwanchi (2026), which reported that low levels of digital technology adoption, driven largely by inadequate infrastructure, constrain staff productivity, whereas productivity increases significantly wherever adoption occurs. This study has infrastructural limitations; beyond reducing research output, it also affects researchers' ability to engage in digitized grants.

Moreover, equity-based concerns elucidate how institutional capacity is skewed in an academic setting. The participants' responses reflect the bias faced by early-career researchers and private institutions in accessing grants. Senior academics were reported to gain preferential treatment and were often favored in terms of access to grants. These perceptions suggest potential inequities in access to grant opportunities. This observation corroborates Baro et al. (2017) and Chikwari et al. (2024), whose studies affirm that junior staff are often sidelined in gaining grants, unlike senior academics, who are largely recipients of most grants.

Furthermore, the role of mentorship and conference attendance as enablers of grant success was also reported by Dahir et al. (2025) and Kalbarczyk et al. (2021). The present study revealed that training, mentorship and capacity-building platforms emerged as strong enabling factors. The training provided, mentoring, and capacity building of institutions were seen to be in favor of successful grant application. Most importantly, the study emphasizes that capacity building is effective when it is incorporated into institutional systems rather than when it is offered as a one-time solution, as previously posited by Adane et al. (2024).

The findings from Nigeria are broadly similar to those of several low- and middle-income countries (LMICs); that is, the problems discussed in the study are not unique to the Nigerian situation but most likely represent general issues related to how research is funded in the LMICs' research environment. Studies in Kenya, Uganda, South Africa, Zambia, and Bangladesh have shown that institutional capacity, which includes factors such as sound research governance, effective administrative systems, strong leadership commitment, and regular staff training, is key to the ability and performance of research institutions to obtain and manage grants (Harste et al., 2021; Kalbarczyk et al., 2021; Salifu et al., 2021; Vicente-Crespo

et al., 2021). Research institutions in those countries that have a very mature level of institutional setup are always those that receive more competitive donor grants, more donor requests being fulfilled, and better-quality research work being sustained through external funding.

Furthermore, the qualitative findings of this research highlight the challenges often cited in the literature concerning LMICs. Delays, poor administration systems, poor digital infrastructure, a lack of mentorship programs, and uneven funding opportunities have all been cited as constant impediments to grant competitiveness in several LMICs in Africa and Asia (Chikwari et al., 2024; Vicente-Crespo et al., 2021). Nonetheless, this study provides quantitative insight even though institutional capacity is statistically significant; it accounts for a relatively small part of grant competitiveness (2.4%) compared with funding availability, which accounts for a much larger part of the variance (21.6%). These findings indicate that while capacity building is crucial for improving grant competitiveness in several LMICs, it cannot be enough to improve grant competitiveness without more funds and better funding opportunities. As such, the Nigerian case portrayed in this study provides more insights to LMICs regarding how grant competitiveness can be improved through investing in governance, administration, leadership, and financing.

Conclusion

This study demonstrates the pivotal role of institutional capacity in shaping grant success in Nigerian institutions and research institutes. The findings from this study reiterate that support from institutional systems, as opposed to individual researcher competence, significantly contributes to effective research performance. A key finding is the emergence of the availability of funds as a strong predictor of successful grant outcomes. This study posits that there is a need to strengthen institutional capacity through capacity building and systemic reforms to enhance grant competitiveness and sustainability in Nigerian higher institutions.

Additionally, this will foster equitable participation in the production of global knowledge while also improving grant success rates. Despite these impressive findings, the study has certain limitations, chief among which is the selection of study participants predominantly from universities, with relatively fewer participants from research institutes, polytechnics, and colleges of education. This will likely impact the generalizability of the findings to tertiary institutions in Nigeria. Additionally, the self-administered online questionnaire adopted in the study is liable to self-report bias. The perceptions of the participants may have been influenced by their personal expectations, and this could lead to under- or overreporting of certain realities.

IMPLICATIONS

Further research is needed to extend the current research by looking at other variables within the organization that can affect the relationship between institutional capacity and grant success. For example, the use of other variables, such as the quality of leadership within the institution, transparency within the administration of the institution, and institutional governance, can be examined in relation to institutional capacity and how they mediate or moderate the relationship. Even though these variables came up in the literature and were seen in some qualitative responses, they were not used in any way within the quantitative part of the current research.

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REFERENCES

Aboh, F., & Barnie, B. (2023). Challenges of the Research Management Office in Higher Educational Institutions (HEIS): Local and Global Perspectives. *Journal of Research Management and Administration*, *2*(1), 1-14 230620233–230620233. https://doi.org/10.18552/jorma.v2il.836

Adane, M., Asgedom, A., & Weldemariam, K. (2024). Academics and their respective institution practices of continuous professional development: A case of Hawassa University, Ethiopia. *Journal of Interdisciplinary Studies in Education, 13*(1), 69-89. https://doi.org/10.32674/jise.v13i1.6147

Aguboshim, F. C., Onwuka, I. N., Obiokafor, I. N., & Oboti, N. P. (2021). Factors challenging research and innovation in tertiary education in Nigeria. *World Journal of Advanced Research and Reviews*, *10*(1), 224–229. https://doi.org/10.30574/wjarr.202.10.1.0167

Akpan, C. P., Archibong, I. A., & Undie, J. A. (2010). Lecturers' access to research fund in Nigerian universities: Challenges and strategies for improvement. *Analele Universităţii din Oradea, Fascicula Sociologie–Asistenţă Socială*, 9, 35–46.

Atah, C., Oche, P., Edogi, J., & Ogbiji, M. (2024). Scopus-Driven Promotional Criteria and Undue Pressure on Academics in Nigerian Universities: Challenges Faced by Nigerian Lecturers. *Journal of Public Administration and Social Welfare Research*, *9*(4). https://doi.org/10.56201/jpaswr.v9.no4.2024.pg48.63

Bako, S. (2005). Universities, research and development in Nigeria: time for a paradigmatic shift. *Proceedings of the 11th General Assembly of CODESRIA, on Rethinking African Development: Beyond Impasse, Towards Alternatives*, 6–8.

Baro, E. E., Bosah, G. E., & Obi, I. C. (2017). Research funding opportunities and challenges: A survey of academic staff members in Nigerian tertiary institutions. *The Bottom Line*, *30*(1), 47–64. https://doi.org/10.1108/BL-07-2016-0027

Baro, E. E., Fyneman, B., & Zoukemefa, T. (2013). Job satisfaction among cataloger librarians in university libraries in Nigeria. *Cataloging & Classification Quarterly*, *51*(6), 675–696. https://doi.org/10.1080/01639374.2013.773952

Bujang, M. A. (2024). An elaboration on sample size determination for correlations based on effect sizes and confidence interval width: a guide for researchers. *Restorative Dentistry & Endodontics*, *49*(2). 10.5395/rde.2024.49.e21.

Chikwari, C. D., Tadesse, A. W., Shanaube, K., Shepherd, A., McQuaid, C. F., & Togun, T. O. (2024). Achieving equitable leadership in Global Health partnerships: barriers experienced and strategies to improve grant funding for early-and mid-career researchers. *BMC Global and Public Health*, *2*(1), 17. 10.1186/s44263-024-00047-4.

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.

Dahir, A. A., Abdallah, A. A., & Ado, A. (2025). Influence of Academic Activities on Research Productivity of University Lecturers in Kano State, Nigeria. *Dala Journal of Library and Information Practice*, *3*(1), 121–127.

Emojorho, D., Urhiewhu, L., & Emezaivwakpor, M. (2022). Research productivity of academic staff in federal colleges of education in Nigeria: The way forward. *International Journal of Multidisciplinary Research and Growth Evaluation*, *3*(3), 609–616.

Faborode, M. (2016). Benchmarking the Quality and Relevance of Higher Education for National Development*: Convocation Lecture*. Covenant University.

Falola, H., Adeniji, A., Adeyeye, J., Igbinnoba, E., & Atolagbe, T. (2020). Measuring institutional support strategies and faculty job effectiveness. *Heliyon*, *6*(3). https://doi.org/10.1016/j.heliyon.2020.e03695

Fwanchi, M. (2026). Digital technology adoption and academic staff productivity in colleges of education in North-Central Nigeria. *Impact International Journals of Sciences, Education and Arts*, *2*(1), 1394–1406.

Harsh, M., Kingiri, A. N., Bal, R., Numi, A., & Mibey, S. (2023). Learning to build institutional capacity through knowledge-based partnerships between universities and industry: lessons for engineering ecosystems from computing in Kenya. *Southern Journal of Engineering Education 2*, 124–156.

Harste, H. J., Kiff, G., Okeke, I. N., Adebiyi, A. O., Ravikumar, K., Nagaraj, G., Ajiboye, J. J., Osma Castro, E. C., Herrera, E., & Aanensen, D. M. (2021). Good financial grant practice: a tool for developing and demonstrating institutional financial and grant management capacity in global health. *Clinical Infectious Diseases*, *73*(Supplement_4), S275–S282. https://doi.org/10.1093/cid/ciab783

Hashiguchi, A., Asashima, M., & Takahashi, S. (2024). The influence of human connections and collaboration on research grant success at various career stages: Regression analysis. *JMIR Formative Research, 8*, e49905. https://doi.org/10.2196/49905

Idika, D. O., Goodwill, G. F., Ajah, M. O., Okeke, S. U., Anakwue, L. A., & Ejoh, A. O. (2023). Assessment of lecturer's access to research grants in Nigerian universities: Impact on knowledge creation and dissemination. *World Journal of Advanced Research and Reviews, 19*(1), 1289–1299. https://doi.org/10.30574/wjarr.2023.19.1.1463

Igiri, B. E., Okoduwa, S. I., Akabuogu, E. P., Okoduwa, U. J., Enang, I. A., Idowu, O. O., Abdullahi, S., Onukak, I. E., Onuruka, C. C., & Christopher, O. P. (2021). Focused research on the challenges and productivity of researchers in Nigerian academic institutions without funding. *Frontiers in research metrics and analytics*, *6*, 727228. https://doi.org/10.3389/frma.2021.727228

Isabu, M. (2025). Corruption in educational leadership: A focus on university education in Nigeria. *Journal of Theoretical and Empirical Studies in Education*, *9*(2), 308–323.

Joshua, K.K. & Arinaitwe, J. (2026). The funding crisis in public universities: A critical analysis of the impact of government subvention on research output at Kyambogo University. *Avance International Journal of Academic and Applied Research, 2*(1), 16–32.

Kalaiappan, V., & Rajasekar, V. (2017, August 2–4). Does e-resources access improve academic and research productivity? Evidence based on opinion of e-resource users at AYUSH institutions. In

Proceedings of the 11th International CALIBER 2017: Re-envisioning Libraries for Future (pp. 113–122). Information and Library Network (INFLIBNET) Centre. https://ir.inflibnet.ac.in/handle/1944/2092

Kalbarczyk, A., Rao, A., & Alonge, O. (2021). A mixed methods study to develop a tool to assess institutional readiness to conduct knowledge translation activities in low-income and middle-income countries. *BMJ open*, *11*(10), e050049. https://doi.org/10.1136/bmjopen-2021-050049

Ladipo, S. O., Alegbeleye, G. O., Soyemi, O. D., & Ikonne, C. N. (2022). Research productivity of lecturers in federal universities in Nigeria: the place of institutional factors. *International Journal of Research in Library Science*, *8*(2), 134–150.

Okiki, O. C. (2013). Availability of information resources for research output: Perception of academic staff members in Nigerian federal universities. *International Journal of Computer Science and Telecommunications, 4*(8), 26–33.

Okocha-Ojeah, I. U., Anyikwa, E. B., & Ojo, R. C. (2026). Institutional development initiatives as determinants of academic staff productivity in public higher institutions in Osun State, Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, *18*(1), 155-166.

Salifu, I., Mantey, P. P., & Worlanyo, E. K. (2021). Optimizing employee efforts: The implications of job design for administrative staff performance in higher education. *Journal of Interdisciplinary Studies in Education*, *10*(SI), 146-167. https://ojed.org/jise/article/view/2747

Sangwa, S., Ekosse, E., Chukwud, J. H., Ukubereyimfura, C., Mutabazi, P., & Muvunyi, J. B. (2026). From aspiration to output: A research-capacity conversion architecture for teaching-oriented universities. *Open Journal of Transformative Education & Lifelong Learning, 2(1)*. https://doi.org/10.65655/OpenChristianPress.2026.105

Sehlaoui, A. S., Gross, E., & Ruengwatthakee, P. (2021). Motivating Factors and Obstacles behind Grant Research: The Case of a Teaching Focused State College. *Journal of Research Administration*, *52*(1), 39–58.

Strekalova, Y. A. L., Kornetti, D. L., Wang, R., Báez, A., Caplan, L. S., Idris, M. Y., Lawson, K., Holmes, J., Mubasher, M., & Pemu, P. (2023). Individual and institutional factors contribute to research capacity building for early-stage investigators from groups underrepresented in biomedical research: A qualitative comparative analysis. *International Journal of Environmental Research and Public Health*, *20*(9), 5662. https://doi.org/10.3390/ijerph20095662

Uneke, C. J., Okedo-Alex, I. N., Akamike, I. C., Uneke, B. I., Eze, I. I., Chukwu, O. E., ... & Urochukwu, H. C. (2023). Institutional roles, structures, funding and research partnerships towards evidence-informed policy-making: A multisector survey among policy-makers in Nigeria. *Health Research Policy and Systems, 21*(1), 36. https://doi.org/10.1186/s12961-023-00971-1

Uwizeye, D., Karimi, F., Thiong'o, C., Syonguvi, J., Ochieng, V., Kiroro, F., Gateri, A., Khisa, A. M., & Wao, H. (2022). Factors associated with research productivity in higher education institutions in Africa: A systematic review. *AAS open research*, *4*, 26. https://doi.org/10.12688/aasopenres.13211.2

Vicente-Crespo, M., Agunbiade, O., Eyers, J., Thorogood, M., & Fonn, S. (2021). Institutionalizing research capacity strengthening in LMICs: A systematic review and meta-synthesis. *AAS open research*, *3*, 43. https://doi.org/10.12688/aasopenres.13303.2

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