

Challenges and strategies for improving lecturer research performance through research-oriented key performance indikator 7 at Universitas Nurtanio Bandung

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ABSTRACT

Background: Research performance is a key indicator of institutional quality and academic competitiveness in higher education. Universitas Nurtanio Bandung faces challenges in optimizing KPI 7 achievement, particularly in lecturer research productivity, scientific publications, external grants, intellectual property outputs, and institutional reward mechanisms.

Purpose: This study aims to analyze the current condition of KPI 7 achievement and formulate optimization strategies to improve lecturer research performance at Universitas Nurtanio Bandung.

Method: This study used a qualitative approach with a descriptive exploratory design. Data were collected through in-depth interviews with nine structural leaders, including vice rectors, research institution leaders, and faculty deans. The data were transcribed and analyzed using NVivo 12 through word frequency analysis, text search query, coding analysis, hierarchy chart, and project map visualization.

Findings: The findings show that lecturer research activities are dominated by internal and external grant-based schemes. The main obstacles include limited external research grants, low journal publication productivity, insignificant intellectual property outputs, competition among lecturers, and the absence of a structured reward system. The study indicates that KPI 7 optimization requires an integrated strategy through stronger institutional policy, lecturer capacity building, research mentoring, external collaboration, grant access expansion, publication support, and a clear reward system. These findings highlight the importance of institutional commitment in building a sustainable research culture and improving lecturer research performance.

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KPI 7; lecturer research performance; higher education strategy; research grants; scientific publication.

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INTRODUCTION

Higher education institutions are currently required to improve academic quality, institutional accountability, and measurable performance. Quality assurance has become a

central concern in higher education because universities are expected to demonstrate academic quality, institutional relevance, and societal impact ([Aburizaizah, 2022](#); [Khuram et al., 2023](#)). This demand also requires universities to strengthen internal quality systems so that academic activities can be evaluated through clear and measurable standards ([Aburizaizah, 2022](#)).

In Indonesia, this demand is reflected in the implementation of Key Performance Indicators (KPI) as an instrument for evaluating higher education performance. The national Key Performance Indicator system emphasizes real-time performance monitoring, national higher education data integration, and evidence-based performance reporting (Ministry of Higher Education, Science, and Technology, 2026). The Science and Technology Index also function as a national research information system that measures and compares the performance of researchers, institutions, and journals in Indonesia. SINTA currently records 331,812 authors, 5,546 affiliations, 2,457 departments, and 15,456 journals, which shows the broad scale of national research monitoring in Indonesian higher education (Science and Technology Index [SINTA], 2026). These developments indicate that lecturer research performance is not only an individual academic responsibility. It has become part of institutional governance, national benchmarking, research visibility, and university competitiveness.

The national research landscape also shows that Indonesian higher education has experienced growth in scientific production, but this growth still requires stronger attention to research quality, institutional distribution, incentives, and research governance. A historical investigation of Indonesian scientific production from 1990 to 2020 shows that publication growth is closely related to policy changes, incentive structures, and the wider development of higher education institutions ([Fu et al., 2024](#)). In addition, research performance instruments in Indonesian universities need continuous evaluation because valid indicators are necessary for improving institutional quality and supporting policy decisions ([Hermanu et al., 2022](#)). University performance should therefore be directed toward measurable outcomes, institutional transformation, and the achievement of higher education quality standards ([Hermanu et al., 2024](#)). Internal quality assurance also needs clear processes, people, and purposes so that performance indicators do not become merely administrative targets ([Krooi et al., 2024](#)). In this context, lecturer research performance becomes an important aspect of university competitiveness because it is related to scientific publications, innovation, intellectual property, academic reputation, and the contribution of higher education to knowledge development.

A lecturer's research performance does not only depend on individual academic competence. It is also shaped by institutional policy, research funding, academic culture, incentive systems, publication support, and research collaboration. Academic productivity is

influenced by institutional expectations, workload structure, and a research-oriented academic environment (Kwiek, 2021). Strong research universities also require leadership, sustainable funding, academic culture, and long-term institutional commitment (Salmi, 2021). Research outputs and citation indicators are often used to assess academic performance, although research quality must still be understood through broader academic and institutional dimensions (Aksnes et al., 2019). These studies indicate that research performance needs to be managed through an integrated institutional strategy.

Previous studies on higher education performance and lecturer research productivity can be grouped into two main streams. The first stream emphasizes institutional governance, quality assurance, and organizational capacity as the foundation of university performance. Higher education performance is closely related to institutional management and the quality of academic resources (Ramaditya et al., 2022). Institutional capacity and academic governance also play an important role in supporting performance improvement (Rambe, 2018). University performance needs to relate to planning, implementation, evaluation, and continuous quality improvement (Mireku & Bervell, 2024). Institutional indicators should not only function as administrative targets, but also as instruments for improving academic quality and institutional competitiveness (Efendi, 2021). This stream is useful for explaining university performance at the organizational level, but it gives less attention to how research indicators are translated into daily lecturer research practices.

The second stream focuses more directly on research productivity, including research funding, collaboration, incentives, lecturer competence, and measurable outputs. Academic incentives can strengthen lecturer motivation to conduct research and publish scientific articles (Purnomo et al., 2021). Research collaboration can improve scientific productivity and publication visibility (S. Lee & Bozeman, 2005). Research productivity among academic staff in developing countries is influenced by institutional support, funding access, and academic motivation (Abdullah et al., 2022). In the Indonesian context, research collaboration also plays an important role in strengthening academic productivity (Yudistira et al., 2022). Research productivity in higher education institutions also depends on interconnected drivers such as institutional support, funding, mentoring, reward systems, and research culture (Ocampo et al., 2022). Recent evidence from Indonesian universities further shows that research atmosphere, collaboration, funding, competence, and output jointly influence research performance (Prasojo et al., 2025). These studies show that lecturer research performance cannot be explained only by individual competence or institutional targets. It depends on the interaction between governance, resources, motivation, collaboration, and output recognition.

However, existing studies have not sufficiently examined how a specific research-based institutional performance indicator is experienced and managed within a private

Indonesian university. Most previous studies discuss higher education performance in broad institutional terms or analyze research productivity through general quantitative models. They rarely explain how university leaders interpret practical barriers such as dependence on internal grants, limited external grant access, uneven journal publication, weak intellectual property output, competition among lecturers, and the absence of a structured reward system. This gap is important because performance indicators can improve lecturer research performance only when they are supported by clear policies, adequate resources, mentoring, collaboration, and institutional incentives. Barriers to academic research productivity often arise from limited funding, weak institutional support, insufficient research capacity, and policy gaps (Kadikilo et al., 2024). Therefore, this study contributes to the literature by providing a qualitative institutional analysis of research-based Key Performance Indicator achievement at Universitas Nurtanio Bandung and by formulating strategic efforts based on empirical findings from structural leaders.

A gap still exists between the expected condition and the actual condition in many higher education institutions. Ideally, universities should have a clear research roadmap, sustainable grant access, strong publication culture, effective mentoring, productive collaboration, intellectual property support, and a structured reward system for lecturers. In reality, several universities still face limited research funding, low publication productivity, weak external collaboration, and limited incentives for lecturers. This gap between *das sollen* and *das sein* also appears at Universitas Nurtanio Bandung. Preliminary data from this study show that lecturer research activities are still strongly dependent on grant schemes, both internal and external. The NVivo 12 word frequency analysis found that the word “research” became the most dominant term in the interview data, with a frequency of 6.62%, followed by “student” at 2.08% and “national” at 2.00%.

The preliminary findings also show several obstacles in optimizing KPI 7 achievement at Universitas Nurtanio Bandung. The coding analysis found that grant-based research appeared 40 times, internal grant research appeared 19 times, and external grant research appeared 18 times. These results indicate that lecturer research activities depend heavily on the availability of research grants. Other findings show that the main obstacles include limited external grants, low journal publication productivity, insignificant intellectual property outputs, competition among lecturers, and the absence of a structured reward system. These conditions indicate that KPI 7 optimization cannot be achieved only by increasing the number of research activities. It also requires stronger institutional policy, lecturer capacity building, publication mentoring, external collaboration, grant access expansion, and a fair reward mechanism.

This study uses a strategic management perspective to analyze the problem. Strategy refers to planned organizational efforts to achieve institutional goals through effective

resource allocation, policy direction, and coordinated action ([Hendriarto, 2021](#)). In higher education, strategic management is important because universities must align human resources, funding, academic culture, collaboration, and performance indicators. Research-oriented higher education institutions need strong leadership, institutional focus, and sustainable investment in academic capacity ([Altbach & Salmi, 2011](#)). From this perspective, KPI 7 optimization must be understood as an institutional strategy, not merely as an administrative obligation. The university needs to connect policy, funding, lecturer competence, research governance, and publication support into one integrated system.

The use of digital qualitative analysis also strengthens this study. Digital tools can help researchers organize qualitative data, identify patterns, and improve analytical transparency when supported by strong interpretation ([Paulus & Lester, 2022](#)). In this study, NVivo 12 was used to analyze interview data through word frequency query, text search query, coding analysis, hierarchy chart, and project map visualization. This method helps identify dominant themes, institutional obstacles, and strategic issues related to lecturer research performance. Therefore, the analysis does not only describe the research problem, but also maps the relationship between research grants, publications, rewards, intellectual property, and institutional support.

Based on the literature and preliminary findings, this study offers novelty in three aspects. First, this study focuses on KPI 7 optimization in a specific Indonesian private higher education institution, namely Universitas Nurtanio Bandung. Second, this study combines strategic management theory with qualitative data from structural leaders who are directly involved in institutional governance. Third, this study uses NVivo-based analysis to map institutional problems and formulate strategies for improving lecturer research performance. Previous studies have mostly discussed research productivity, funding, collaboration, or institutional performance in general. This study specifically examines how KPI 7 can be optimized through integrated institutional strategies that respond to actual internal obstacles.

Based on the background, literature gap, and preliminary findings, the main research problem of this study is the gap between the expected achievement of research-based institutional performance indicators and the actual condition of lecturer research performance at Universitas Nurtanio Bandung. This gap appears in the dependence on grant-based research schemes, limited access to external research funding, uneven journal publication output, insignificant intellectual property output, competition among lecturers, and the absence of a structured reward system. Therefore, this study addresses two research questions. First, what is the current condition of research-based Key Performance Indicator achievement and lecturer research performance at Universitas Nurtanio Bandung? Second, what challenges and strategic efforts are needed to strengthen research-based Key

Performance Indicator achievement and lecturer research performance at Universitas Nurtanio Bandung?

This study aims to analyze the current condition of research-based Key Performance Indicator achievement and to formulate strategic efforts for improving lecturer research performance at Universitas Nurtanio Bandung. Theoretically, this study contributes to strategic management studies in higher education, especially in relation to research performance, institutional indicators, and academic governance. Practically, this study provides recommendations for university leaders in designing research policies, strengthening lecturer capacity, improving grant access, supporting publication outputs, developing collaboration, facilitating intellectual property outputs, and establishing a structured reward system. Since this study uses a qualitative exploratory design, it does not formulate a statistical hypothesis. Instead, it develops an empirical and conceptual understanding of institutional strategies needed to strengthen lecturer research performance.

METHODS

This study was conducted as field research because the data were collected directly from informants at Universitas Nurtanio Bandung. The study used a qualitative approach with a descriptive exploratory design to understand the actual condition of KPI 7 achievement and the strategies needed to improve lecturer research performance. The research was empirical in nature because it examined real institutional experiences, policies, and obstacles faced by university leaders in managing research performance. This design was used to obtain a contextual understanding of how lecturer research activities, research grants, journal publications, intellectual property outputs, reward systems, and institutional support were implemented in the university.

The research was conducted from April to June 2025 at Universitas Nurtanio Bandung. The research participants consisted of nine structural leaders who were directly involved in the management of higher education performance and tridharma activities. The informants included vice rectors, leaders of research-related institutions, and faculty deans. The participants consisted of six male informants and three female informants. They were selected because they had direct knowledge of institutional research policies, internal and external grant schemes, lecturer research activities, journal publication outputs, intellectual property outputs, and obstacles in optimizing KPI 7 achievement.

The data sources in this study consisted of primary and supporting data. Primary data were obtained through in-depth interviews with the nine informants. The interviews focused on the condition of lecturer research performance, the implementation of internal and external research grants, journal publication achievements, intellectual property outputs,

reward mechanisms, competition among lecturers, and institutional strategies for optimizing KPI 7. Supporting data were obtained from relevant institutional documents and research-related records that helped clarify the interview results. These supporting data were used to strengthen the interpretation of the findings and to provide a clearer picture of research performance management at Universitas Nurtanio Bandung.

Data collection was carried out through in-depth interviews. The researchers prepared interview guidelines based on the focus of the study, but the informants were allowed to explain their experiences and opinions in detail. The interview data were then organized into transcripts before being analyzed. The collected transcripts from the nine informants were imported into NVivo 12 software. This step was carried out to support systematic qualitative data management and to identify dominant themes related to KPI 7 optimization and lecturer research performance.

Data analysis was conducted through several stages, namely data reduction, coding, categorization, visualization, and interpretation. The researchers first reviewed the interview transcripts to identify relevant statements related to research performance, grants, publications, rewards, intellectual property, and institutional obstacles. The data were then coded and grouped into themes using NVivo 12. The Word Frequency Query feature was used to identify the most dominant words in the interview data. The Text Search Query feature was used to examine the context of important words, especially terms related to research. Coding analysis was used to identify the frequency and distribution of themes. The Hierarchy Chart and Project Map features were used to visualize the relationship between categories and to show the dominant issues found in the data. The final interpretation was carried out by connecting the coding results with the research objectives and the discussion on institutional strategies for improving lecturer research performance.

The credibility of the data was maintained by comparing information across informants and checking the consistency between interview findings and supporting documents. The researchers also reviewed the coding results repeatedly to ensure that the themes reflected the meaning of the interview data. Through this process, the study produced an empirical description of the current condition of KPI 7 achievement and formulated strategies for improving lecturer research performance at Universitas Nurtanio Bandung.

RESULT AND DISCUSSION

Result

Current Condition of Research-Based Key Performance Indicator Achievement

The findings show that research-oriented Key Performance Indicator 7 achievement at Universitas Nurtanio Bandung is mainly reflected in lecturer research activities, grant-based

research schemes, journal publication output, student involvement, intellectual property output, recognition, and institutional reward mechanisms. Word frequency analysis was used as an entry point to understand the focus of the interview data. It showed that the word research was the most dominant term in the interview transcripts, followed by student and national. This pattern indicates that participants discussed research performance not as a separate individual task, but as part of an institutional and national academic performance agenda.

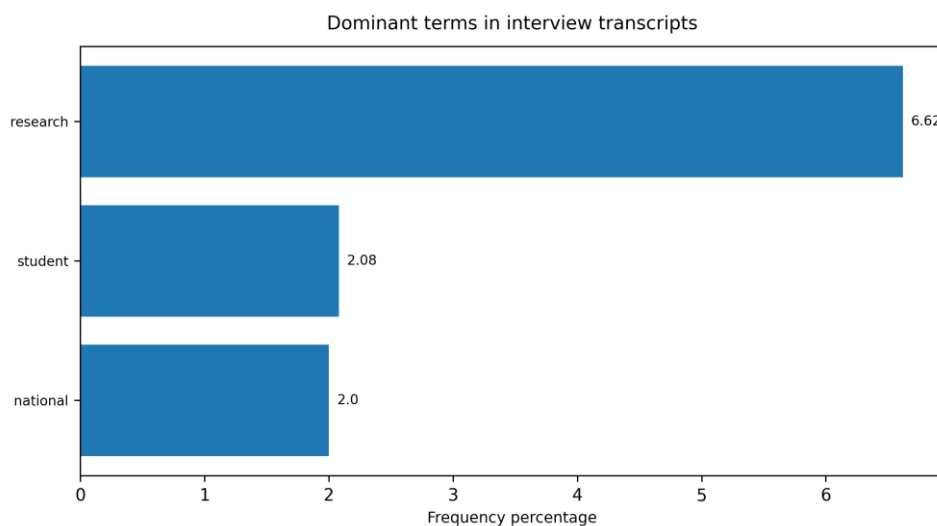
The meaning of this pattern becomes clearer when it is read together with participant statements. P4 explained that research activities already existed, but they were still limited and carried out through grants. P8 also emphasized that lecturer research activities ran according to plan, although they were not yet optimal. These excerpts show that the university has an active research base, but its implementation still requires stronger institutional support to move from routine activity to sustainable research performance.

"The research activities of permanent lecturers at Unnur are carried out, although they are limited. They are conducted through grants." (P4)

"The research activities of permanent lecturers at Unnur run according to plan, although they are not yet optimal." (P8)

Figure 1.

Word frequency results from interview transcripts



Source: NVivo 12 analysis based on interview transcripts.

Figure 1 is used only to show the initial distribution of dominant terms. The interpretation of the findings does not rely on the frequency results alone. The participant excerpts provide the main empirical basis for explaining how lecturer research performance is experienced by structural leaders at Universitas Nurtanio Bandung.

Grant-based Research as the Main Activity Pattern

Grant-based research emerged as the main pattern in the interview data. The coding results show that research grants, internal grants, and external grants appeared as recurring themes. However, these counts are treated as supporting information only. The more important finding is that participants understood grants as the practical condition that enables lecturer research activities to continue each year.

Participants repeatedly described internal grants as the most accessible institutional support. P2 stated that internal grants were available for permanent lecturer research, while P9 explained that lecturer research was carried out through grant support. These excerpts show that internal grants function as a basic mechanism for maintaining lecturer research participation.

External grants were also present, but participants described them as competitive and not yet extensive. P1 explained that external grant-based research had increased to some extent because there was strong competition. P2 used similar wording by explaining that external grant-based research had increased, although not many lecturers had accessed it. This evidence shows that external grants have strategic value, but they remain difficult to obtain consistently.

"There are internal grants for permanent lecturer research at Unnur." (P2)

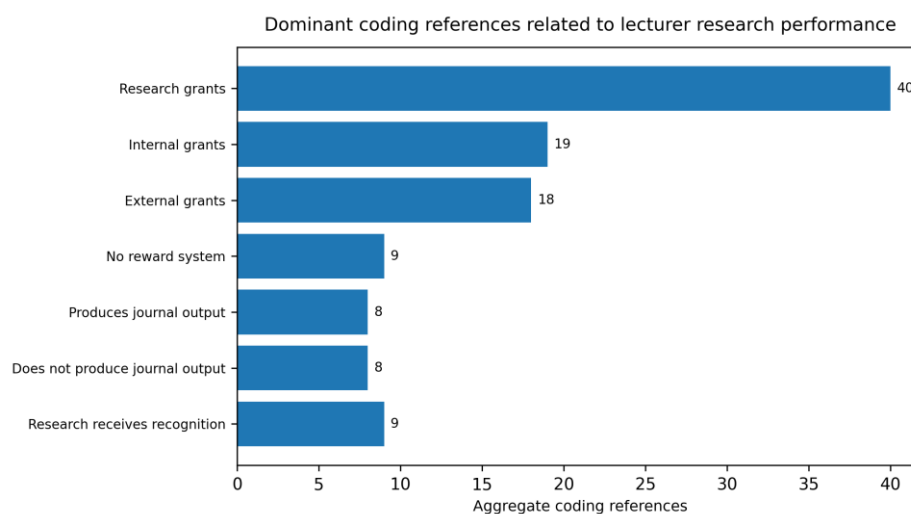
"Permanent lecturer research at Unnur is carried out through grants." (P9)

"The number of permanent lecturer research projects from external grants has increased to some extent, because there is strong competition." (P1)

"The number of permanent lecturer research projects from external grants has increased to some extent, although not many." (P2)

Figure 2.

Dominant coding references related to lecturer research performance



Source: NVivo 12 coding analysis based on interview transcripts.

Figure 2 supports the finding that grants, publication output, recognition, and reward issues were recurring themes in the interview data. The figure is not used to replace qualitative interpretation. It is used as a supporting visual to show the coding structure that was later interpreted through interview excerpts.

Table 1.

Summary of dominant coding references

Theme	Aggregate coding references	Interpretation
Research grants	40	Grant schemes are the central mechanism of lecturer research activity.
Internal grants	19	Internal funding supports basic research continuity and lecturer participation.
External grants	18	External funding is strategic but difficult to access consistently.
No reward system	9	The absence of incentives weakens motivation to publish and compete.
Produces journal output	8	Some units report journal production, but the output is uneven.
Does not produce journal output	8	Publication productivity remains inconsistent across units.
Research receives recognition	9	Recognition exists but needs stronger institutional conversion into performance value.

Table 1 is presented as a supporting summary of coding references showing that the strongest empirical pattern was related to research grants. The frequency of internal and external grant themes indicates that the lecturer research performance was strongly associated with funding access. At the same time, the appearance of reward-related and journal-output themes shows that research productivity was also shaped by institutional recognition and publication support.

Table 2 confirms that research grants formed the strongest aggregate coding pattern, followed by journal-related themes, research recognition, research implementation, and student involvement. The editable format allows readers to compare coding references, aggregate coding references, coded items, and aggregate coded items more clearly. It also strengthens the empirical basis of the findings because each dominant issue is linked to its coding distribution.

Table 2.

NVivo comparison of coding references and coded items

Codes	Number of coding references	Aggregate number of coding references	Number of items coded	Aggregate number of items coded
Nodes\Jurnal	2	27	2	9
Nodes\Jurnal\Menghasilkan	8	8	8	8
Nodes\Jurnal\Tidak ada reward	9	9	9	9
Nodes\Jurnal\Tidak menghasilkan	8	8	8	8
Nodes\Pendidikan dilakukan	6	6	6	6
Nodes\Pendidikan memperoleh penghargaan	9	9	9	9
Nodes\Pendidikan hibah	3	40	3	9
Nodes\Pendidikan hibah\Hibah eksternal	9	18	8	9
Nodes\Pendidikan hibah\Hibah eksternal	7	7	7	7
Nodes\Pendidikan hibah\Hibah eksternal	2	2	2	2
Nodes\Pendidikan hibah\Hibah internal	9	19	8	9
Nodes\Pendidikan hibah\Hibah internal	10	10	9	9
Nodes\Pendidikan melibatkan responden	9	9	9	9
Nodes\Pendidikan memperoleh penghargaan	9	9	9	9

Journal Output and the Absence of Reward

The findings on journal output show a mixed condition. Some lecturer research activities produced journal outputs, but not all research was converted into national or international journal publications. This theme is presented through participant excerpts because the previous project map had limited interpretive value for readers who were not familiar with NVivo.

P6 stated that some lecturer research produced national or international journal outputs, while some did not. P1 also stated that not every permanent lecturer research project produced journal outputs. These excerpts clarify that the issue is not the absence of

publication activity. The issue is the uneven conversion of research activity into publication output.

The absence of a structured reward system also emerged clearly from the interviews. P9 and P8 both stated that Unnur did not provide rewards for permanent lecturers who produced national or international journal outputs. These statements show that reward is not merely a technical incentive issue. It is connected to motivation, institutional recognition, and the sustainability of research writing.

"Permanent lecturer research at Unnur produces national or international journal outputs, and some does not." (P6)

"Not every permanent lecturer research project at Unnur produces a national or international journal output." (P1)

"There is no reward from Unnur for permanent lecturers who produce national or international journal outputs." (P9)

"There is no reward from Unnur for permanent lecturers who produce national or international journal outputs." (P8)

Table 3.

Representative Interview Excerpts on Journal Output and Reward System

Theme	Representative interview excerpt	Interpretation
Uneven journal output	"Permanent lecturer research at Unnur produces national or international journal outputs, and some does not." (P6)	Publication output exists, but it is not evenly produced across research activities.
Uneven journal output	"Not every permanent lecturer research project at Unnur produces a national or international journal output." (P1)	Research activity does not automatically lead to journal publication.
Absence of reward	"There is no reward from Unnur for permanent lecturers who produce national or international journal outputs." (P9)	A structured reward mechanism is not yet available.
Absence of reward	"There is no reward from Unnur for permanent lecturers who produce national or international journal outputs." (P8)	The reward issue appears consistently across participants.

Table 3 replaces the previous project map of journal output themes. The table gives readers direct access to empirical evidence and shows how the themes of uneven journal output and the absence of reward were built from participant statements.

Challenges in Strengthening Lecturer Research Performance

The main challenges in strengthening lecturer research performance are not explained only by the number of coding references. They are better understood through the meanings expressed by participants. Five main challenges emerged from the interviews: dependence on grant schemes, competitive access to external grants, uneven journal publication output, limited intellectual property output, and the absence of a structured reward system.

The first challenge is dependence on grant schemes. Participants described research activities as being carried out through grants. This indicates that grants are not merely financial support, but a central condition for lecturer research continuity. When research activity depends heavily on grants, institutional policy needs to ensure that lecturers have access to funding and mentoring.

The second challenge is competitive access to external grants. P1 stated that external grant-based research increased because there was strong competition. This statement shows that external grants are important, but they require stronger proposal quality and institutional support. P2 also noted that external grant-based research increased, although not many lecturers obtained it. This reflects a gap between opportunity and lecturer readiness.

The third challenge is weak conversion of research into recognized outputs. Intellectual property output already exists, but participants repeatedly stated that it was not extensive. P1 stated that lecturer and student research works obtained intellectual property rights, although not many. P5 expressed the same condition by stating that there were intellectual property outputs, but not many. These statements show that research products need stronger facilitation so that they can become recognized outputs.

The fourth challenge is uneven journal publication output. Participant statements show that some research produced journal outputs, while other research did not. This condition indicates that journal publication still depends on lecturer readiness, writing ability, and institutional support. The university needs publication mentoring, journal selection assistance, and support for article revision to improve consistency.

The fifth challenge is the absence of a structured reward system. Participants consistently stated that no reward was available for lecturers who produced national or international journal outputs. This finding has important meaning because publication requires sustained effort, including writing, submission, revision, and communication with journals. Without clear recognition, lecturer motivation to publish may weaken.

"There are research works by lecturers and students that obtain intellectual property rights, although not many." (P1)

"There are research works by lecturers and students that obtain intellectual property rights, but not many." (P5)

Table 4 replaces the previous project map of barriers. The use of direct excerpts makes the relationship between empirical data and thematic interpretation clearer. It also shows that the challenges are grounded in participant experience, not only in NVivo coding frequency.

Table 4.

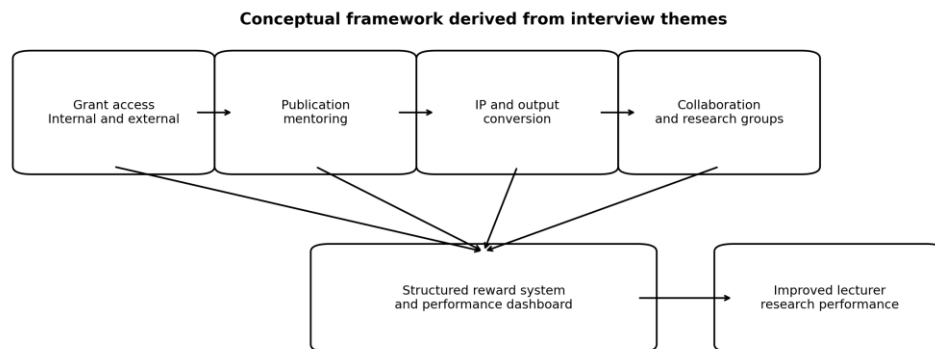
Representative Interview Excerpts on Institutional Challenges

Challenge	Representative interview excerpt	Analytical meaning
Dependence on grants	"The research activities of permanent lecturers at Unnur are carried out, although they are limited. They are conducted through grants." (P4)	Research continuity depends on grant availability and institutional support.
Competitive external grants	"The number of permanent lecturer research projects from external grants has increased to some extent, because there is strong competition." (P1)	External grants are important but difficult to access.
Uneven journal output	"Permanent lecturer research at Unnur produces national or international journal outputs, and some does not." (P6)	Publication output is not yet consistent across research activities.
Limited intellectual property output	"There are research works by lecturers and students that obtain intellectual property rights, although not many." (P1)	Research products are not yet fully converted into recognized outputs.
No reward system	"There is no reward from Unnur for permanent lecturers who produce national or international journal outputs." (P9)	Institutional recognition has not been formalized into incentives.
Research not yet optimal	"The research activities of permanent lecturers at Unnur run according to plan, although they are not yet optimal." (P8)	Research activities exist, but they need stronger governance.

Figure 3 provides a clearer conceptual framework than the previous project map. It shows how grant access, publication mentoring, intellectual property support, collaboration, reward systems, and performance monitoring are linked to lecturer research performance. The framework is based on the interview themes and is intended to help readers understand the relationship among the identified categories.

Figure 3.

Prepresentative Interview Excerpts on Institutional Challenges



Source: Author analysis based on interview excerpts and thematic findings.

Strategic Efforts Based on Field Evidence

The proposed strategic efforts were developed from the empirical patterns found in the interview data and NVivo coding results. The findings did not only show general institutional problems. They also revealed repeated concerns across participant groups regarding research grants, publication output, reward mechanisms, intellectual property output, lecturer competition, and monitoring systems. Therefore, the strategies proposed in this section are grounded in the dominant themes and barriers identified from the field data.

The strategic efforts proposed in this study are derived from participant perspectives and thematic interpretation, not only from coding frequency. The participant excerpts show the practical reasons why each strategy is needed. Research is conducted through grants, external grants are competitive, publication output is uneven, intellectual property output is not yet extensive, and rewards are not available. These conditions provide the empirical basis for the proposed strategies.

Grant clinics and proposal review teams are needed because participants described research as dependent on grant support and external grants as competitive. A grant clinic can help lecturers identify suitable funding schemes, strengthen proposal quality, and receive feedback before submission. This strategy responds directly to participant statements about the importance of internal and external grants.

Publication mentoring and writing camps are needed because participants stated that not all lecturer research produced journal outputs. Mentoring can support lecturers from manuscript planning to journal selection, submission, revision, and post-acceptance reporting. This strategy is relevant because the interview data show that publication output exists, but it is not yet consistent.

Intellectual property assistance is needed because participants stated that intellectual property outputs already existed but were not many. The university can support lecturers by

mapping potential research products, assisting registration documents, and connecting research outputs with applied or innovative products. This strategy helps convert research activity into recognized outputs beyond journal publication.

A transparent reward system is needed because participants consistently stated that there was no reward for lecturers who produced national or international journal outputs. The reward system should value publication quality, grant acquisition, collaboration, intellectual property, and applied outputs. It should not only reward the number of articles, but also the institutional value of research outputs.

Collaborative research groups and a research performance dashboard are also needed. Research groups can reduce unhealthy competition by encouraging cross-faculty proposals and publication teams. A dashboard can help leaders monitor grants, publications, intellectual property, recognition, and reward distribution. This monitoring function is relevant because P3 stated that research development could be seen through SINTA, which indicates the importance of institutional data use.

"The increase in permanent lecturer research from internal grants can be seen on the SINTA page." (P3)

Table 5 strengthens the link between interview evidence and recommended strategies. Each strategy is connected to a participant-based concern. This structure shows that the proposed actions are not normative suggestions only, but practical responses to field evidence.

Overall, the findings answer the research questions by showing that research-oriented Key Performance Indicator 7 achievement at Universitas Nurtanio Bandung is already supported by annual research activity, internal grants, external grants, student involvement, intellectual property outputs, and recognition. However, research performance remains constrained by competitive external funding, uneven journal output, limited intellectual property conversion, and the absence of a reward system. Strengthening lecturer research performance therefore requires an integrated strategy that connects funding, mentoring, collaboration, publication support, intellectual property facilitation, incentives, and monitoring.

Discussion

Research-Based Performance Achievement as an Institutional Governance Issue

The findings show that lecturer research performance at Universitas Nurtanio Bandung is not an inactive area. Research activities are already conducted every year, supported by internal grants, and connected to student involvement, journal output, intellectual property, and institutional recognition. However, the interview excerpts also show that this research

activity has not yet developed into a fully integrated and sustainable research performance system. Several participants described lecturer research as running every year, but they also used limiting expressions such as "limited," "not yet optimal," and "conducted with grants." This pattern indicates that the core issue is not the absence of research activity. The core issue is the institutional capacity to convert existing research activity into consistent and competitive outputs.

Table 5.

Strategic Implications Derived from Participant Perspectives

Participant-based evidence	Interpretation	Strategic effort
Research is carried out through grants.	Lecturer research activity depends on funding availability and institutional facilitation.	Create grant clinics and proposal review teams.
External grants increased because there is strong competition.	External funding requires stronger proposal quality and institutional mentoring.	Provide external grant mentoring and peer review before submission.
Some research produces journal outputs, and some does not.	Publication productivity is uneven and needs structured support.	Run publication mentoring, writing camps, and journal selection assistance.
Intellectual property outputs exist, but not many.	Research results are not yet fully converted into recognized outputs.	Provide intellectual property mapping and registration assistance.
No reward is available for journal outputs.	Lecturer motivation and institutional recognition need formal incentives.	Develop transparent research and publication rewards.
Research development can be seen on SINTA.	Research performance needs systematic monitoring and data-based decision-making.	Create a research performance dashboard.
Research involves students.	Lecturer research has potential to strengthen the academic ecosystem.	Build lecturer-student research groups and cross-faculty collaboration.

This finding is important because research-based performance achievement cannot be understood only as a matter of individual lecturer productivity. It reflects the quality of research governance, resource allocation, mentoring, monitoring, and institutional incentives. [Hermanu et al. \(2024\)](#) argue that research performance in higher education should be viewed as a system that connects input, process, output, productivity, and outcome. The present study supports this view. At Universitas Nurtanio Bandung, research

inputs already exist through internal grants and lecturer participation. Research processes also exist through annual research implementation. Yet the conversion from research activity to stronger outcomes, such as consistent publication, intellectual property, external grants, and recognized institutional performance, still requires stronger governance.

The interview data also suggest a gap between formal performance expectations and institutional support mechanisms. Participants confirmed that research is conducted and that several outputs have been achieved. However, they also indicated that publication, intellectual property, and reward systems remain uneven. This means that research-based Key Performance Indicator achievement cannot be improved by asking lecturers to produce more outputs without strengthening the institutional ecosystem around them. This finding extends [Ramaditya et al. \(2022\)](#), who emphasize the role of academic resources and talent management in higher education performance. In this study, academic resources are not enough if they are not supported by structured research policies, publication assistance, incentive systems, and cross-unit coordination.

The findings also align with [Krooi et al. \(2024\)](#), who state that internal quality assurance requires clear processes, people, and purposes. In the context of this study, the research performance indicator should not function only as an administrative reporting tool. It should function as a governance instrument that helps leaders identify research gaps, support lecturers, improve collaboration, and monitor outputs. Therefore, the achievement of research-based performance indicators at Universitas Nurtanio Bandung should be interpreted as a governance issue rather than a simple measurement issue.

Grant-Based Research and Funding Dependency

The findings show that grants are the main driver of lecturer research activity at Universitas Nurtanio Bandung. Participants repeatedly stated that research activities were conducted through internal grants and that external grants were also available, although not always easy to obtain. This shows that grant schemes play a dual role. On one side, internal grants help maintain lecturer participation in research. On the other side, dependency on grants also creates a structural limitation when access to external funding remains limited, competitive, or uneven across lecturers and faculties.

This finding is consistent with [Y. H. Lee \(2021\)](#), who found that research funding plays an important role in university research productivity. Research funding provides more than financial resources. It gives lecturers time, legitimacy, institutional support, and a pathway to produce recognized outputs. The findings also support [Ocampo et al. \(2022\)](#), who explain that research productivity depends on connected elements such as funding, institutional support, mentoring, reward systems, and research culture. However, the present study adds

a more contextual insight. In a private university setting, internal grants may sustain research activity, but they do not automatically create high-level research competitiveness.

The interview evidence shows that external grants are viewed as strategic but difficult. One participant stated that external grant-based research had increased, but “there are many competitors.” This statement is important because it shows that the challenge is not simply the lack of external grant opportunities. The deeper issue is lecturer readiness to compete in external schemes. External grants usually require stronger proposal quality, research track record, collaboration networks, administrative readiness, and institutional support. Without these conditions, lecturers may remain dependent on internal grants, while external funding remains accessible only to a limited group.

This finding also supports [Kadikilo et al. \(2024\)](#), who identify limited funding and weak institutional support as barriers to academic research productivity. The implication is clear. Universitas Nurtanio Bandung needs to shift from grant distribution to grant capacity building. Internal grants should not only fund research projects. They should also become a training platform that prepares lecturers to compete for external grants. This can be done through proposal clinics, peer review teams, mentoring by experienced researchers, and collaborative proposal development across faculties.

Journal Output, Recognition, and Reward System

The findings show that journal publication is present but not yet consistent across research activities. Several participants stated that not all lecturer research produces national or international journal outputs. This statement reflects a key problem in research performance management. Research activity does not automatically become publication output. Publication requires writing competence, journal selection skills, revision capacity, language support, and persistence in the submission process. Therefore, uneven journal output should not be interpreted only as a lecturer-level weakness. It also reflects the need for institutional publication support.

This finding is consistent with [Prasojo et al. \(2025\)](#), who show that research performance in Indonesian universities is shaped by research atmosphere, collaboration, funding, competence, and output. The present study confirms that journal output depends on more than individual motivation. Lecturers need a research atmosphere that supports writing, feedback, revision, and journal targeting. When publication support is not structured, research may stop at report completion and fail to become a published article. This helps explain why some research activities produce journal outputs while others do not.

The reward system is another critical issue. Several participants clearly stated that there was no reward for lecturers who produced national or international journal outputs. This finding shows that institutional recognition has not been fully translated into a formal

incentive mechanism. In qualitative terms, the absence of reward may weaken the symbolic value of research work. Lecturers may feel that publication requires high effort, but the institution does not yet provide clear appreciation, financial incentives, workload recognition, or career support.

This finding strengthens [Ocampo et al. \(2022\)](#), who identify reward systems as one of the drivers of research productivity. However, the present study adds that rewards should not only be used to increase publication numbers. A good reward system should promote research quality, journal credibility, collaboration, relevance, intellectual property, and institutional contribution. If incentives focus only on quantity, lecturers may pursue publication without improving research substance. Therefore, Universitas Nurtanio Bandung needs a balanced reward system that values both measurable output and academic quality.

The link between journal output and reward also shows why research performance should be managed as an institutional ecosystem. Publication mentoring without incentives may not sustain motivation. Rewards without mentoring may benefit only lecturers who already have publication experience. Grant support without publication pathways may increase research activity but not publication output. These elements must work together. This is the central lesson from the journal and reward findings.

Converting Research Activity into Competitive Outputs

The findings show that Universitas Nurtanio Bandung has already produced several research outputs, including journal publications, intellectual property, and recognition from national or international institutions. However, participants also indicated that these outputs are not yet fully consistent. One participant stated that intellectual property outputs exist, but “not many.” Another participant stated that research activities run according to plan, but “not yet optimal.” These statements show that the main challenge is output conversion. The university has research activity, but it still needs stronger mechanisms to convert research into competitive academic and innovation outputs.

This finding supports [Hermanu et al. \(2024\)](#), who argue that research performance should be evaluated from input to outcome. In this study, the input stage is reflected in internal grants and annual research implementation. The process stage is reflected in lecturer participation and student involvement. The output stage is reflected in journal publications, intellectual property, and institutional recognition. However, the outcome stage remains limited because these outputs are not yet evenly produced or systematically supported. This shows that research governance should focus not only on increasing the number of research projects, but also on improving the quality and usability of outputs.

The weak conversion of research into intellectual property is especially important. Intellectual property shows that research has potential value beyond academic reporting. It

can support innovation, community use, industry collaboration, and institutional reputation. Yet the interview data suggest that intellectual property outputs remain limited. This condition may occur because lecturers need support in identifying IP potential, preparing documents, mapping research products, and understanding registration procedures. Therefore, intellectual property support should become part of research mentoring, not a separate administrative process after research is completed.

The findings also show that competition among lecturers needs careful interpretation. Competition can encourage productivity when opportunities are transparent and support is fair. However, competition can weaken collaboration if research grants, publication opportunities, and institutional rewards are limited. Gilmour (2024) emphasizes that research collaboration within a university can improve research development when it is actively facilitated. In the present study, collaboration is important because the challenges faced by lecturers are not only individual. They relate to proposal writing, journal publication, intellectual property, and external recognition. These tasks often require collective expertise.

Therefore, Universitas Nurtanio Bandung needs to transform individual research activity into collaborative research productivity. Research clusters, cross-faculty teams, joint proposals, and senior-junior mentoring can help lecturers share expertise and reduce unhealthy competition. This model also supports external grant readiness because competitive proposals usually require stronger teams, clearer research roadmaps, and better institutional backing.

Strategic Efforts for Strengthening Lecturer Research Performance

The proposed strategies in this study are derived from participant perspectives and the institutional problems reflected in the interviews. The need for grant clinics comes from the finding that research activities depend heavily on grants, while external grant access remains competitive. The need for publication mentoring comes from the finding that not all research produces journal outputs. The need for a reward system comes from the repeated statement that the university has not provided clear rewards for journal publications. The need for intellectual property assistance comes from the finding that IP outputs exist but remain limited. The need for collaborative research groups comes from the need to strengthen research capacity and reduce fragmented research work.

These strategies should not be treated as separate programs. They should form an integrated institutional research performance model. First, internal grants should be connected to proposal improvement and external grant preparation. Second, every funded research project should have a publication pathway from the beginning. Third, publication mentoring should include article drafting, journal targeting, plagiarism checking, language editing, submission, and revision support. Fourth, intellectual property potential should be

mapped during the research process, not after the research has ended. Fifth, reward systems should recognize grants, journal quality, intellectual property, collaboration, and applied research contribution. Sixth, research monitoring should be conducted through a dashboard that tracks progress across faculties.

This strategic model is consistent with the strategic management perspective. Strategy in higher education requires the alignment of goals, resources, people, processes, and performance indicators. In this study, research-based Key Performance Indicator achievement should not be seen as a target that lecturers must meet individually. It should be seen as a shared institutional agenda that requires leadership, policy support, mentoring, incentives, and monitoring. This interpretation strengthens the contribution of the study because it shows how a research-based performance indicator can be translated into practical governance mechanisms in a private university.

The findings also suggest that research performance improvement should begin from realistic institutional conditions. Universitas Nurtanio Bandung does not start from zero. Research activities are already conducted. Internal grants exist. External grants have been obtained by some lecturers. Students are involved. Journal outputs, intellectual property, and recognition already exist in some cases. The strategic task is to make these achievements more systematic, more evenly distributed, and more strongly connected to institutional performance. Therefore, the proposed model does not require a radical institutional overhaul. It requires better coordination, clearer incentives, stronger mentoring, and more consistent monitoring.

The main contribution of this study lies in showing that lecturer research performance in a private Indonesian university is shaped by the relationship between research activity, grant access, publication conversion, intellectual property support, reward systems, and institutional governance. Previous studies have often discussed research productivity through broad institutional indicators or quantitative models. This study adds a qualitative explanation of how university leaders understand the barriers and strategic needs behind research-based performance achievement. The findings show that KPI-oriented research performance can only become meaningful when it is supported by a research ecosystem that helps lecturers move from activity to output, and from output to institutional value.

Overall, the discussion confirms that improving lecturer research performance requires more than increasing the number of research projects. It requires a governance system that connects internal grants, external funding readiness, publication mentoring, intellectual property facilitation, collaborative research groups, reward mechanisms, and performance monitoring. When these elements work together, research-based Key Performance Indicator achievement can function not only as an administrative requirement, but also as a

tool for building a sustainable research culture and strengthening university competitiveness.

CONCLUSION

This study concludes that strengthening research-oriented Key Performance Indicator 7 achievement at Universitas Nurtanio Bandung requires an integrated institutional strategy that connects research funding, lecturer capacity, publication support, intellectual property facilitation, collaboration, reward mechanisms, and performance monitoring. The interview findings show that lecturer research activities have been conducted regularly and are supported by internal grants. However, research performance has not yet developed into a fully consistent and competitive output system. Several participants indicated that research activities still depend strongly on grant schemes, external grant access remains competitive, not all research produces journal publications, intellectual property outputs are still limited, and a structured reward system has not yet been provided.

The main contribution of this study lies in its qualitative explanation of how university leaders understand the barriers and strategic needs behind lecturer research performance. The findings show that lecturer research performance is not only an individual academic responsibility. It is shaped by institutional governance, funding access, mentoring, output conversion, collaboration, recognition, and incentive policy. In the context of Universitas Nurtanio Bandung, the improvement of research-oriented KPI 7 should focus on strengthening grant clinics, publication mentoring, intellectual property assistance, collaborative research groups, transparent rewards, and research performance monitoring.

Based on these conclusions, the university should develop a more structured research performance policy. This policy should include regular proposal mentoring, competitive internal grants, external grant assistance, journal publication support, intellectual property facilitation, cross-faculty research collaboration, and clear incentives for lecturers who produce measurable research outputs. Future research is recommended to involve more lecturers from different academic units and to use a mixed-method design so that institutional perceptions can be compared with quantitative research performance data. Future studies may also examine how reward systems, publication mentoring, and research collaboration affect lecturer productivity over time.

DECLARATIONS

Author Contribution

Jubaedah, E: Conceptualization, Methodology, Investigation, Writing - Original Draft, and Project Administration. **Mustiraya, R:** Methodology, Formal Analysis, Data Curation, Writing - Review & Editing, and Validation. **Sutjiningtyas, S:** Software, Visualization, Formal

Analysis, Data Curation, and Writing - Review & Editing. **Munawar, H. S.:** Supervision, Validation, Resources, Writing - Review & Editing, and Project Administration. All authors have read and approved the final version of the manuscript.

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Conflict of Interest

The authors declare no conflict of interest.

Declaration of AI Use

ChatGPT was used to improve language clarity, academic structure, and English editing under author supervision. The authors reviewed, verified, and approved all final content. No AI tool was used to replace the authors' intellectual contribution, data analysis decisions, or interpretation of findings.

Additional Information

The data supporting the findings of this study are available from the corresponding author upon reasonable request. This study involved interviews with university structural leaders and did not collect sensitive personal, clinical, or patient data. Informants participated voluntarily, and the data were reported in aggregate form for academic purposes. Ethical approval was not required because the study used non-sensitive institutional interview data. However, the research process followed principles of voluntary participation, confidentiality, and academic integrity.

REFERENCES

- Abdullah, A., Rahman, M., & Hamzah, M. (2022). Research productivity among academic staff: Evidence from developing countries. *Sustainability*, 14(3), 1456.
- Aburizaizah, S. J. (2022a). The role of quality assurance in Saudi higher education institutions. *International Journal of Educational Research Open*, 3, 100127. <https://doi.org/10.1016/j.ijedro.2022.100127>
- Aburizaizah, S. J. (2022b). The role of quality assurance in Saudi higher education institutions. *International Journal of Educational Research Open*, 3, 100127. <https://doi.org/10.1016/j.ijedro.2022.100127>
- Aksnes, D. W., Langfeldt, L., & Wouters, P. (2019). Citations, citation indicators, and research quality: An overview of basic concepts and theories. *Frontiers in Research Metrics and Analytics*, 4, 9. <https://doi.org/10.1177/2158244019829575>

- Altbach, P. G., & Salmi, J. (Eds.). (2011). *The road to academic excellence: The making of world-class research universities*. World Bank. <https://doi.org/10.1596/978-0-8213-8805-1>
- Efendi, F. (2021). *Efektivitas model pembelajaran terpadu tipe webbed berbantuan media teknologi untuk meningkatkan kualitas pembelajaran IPS tema makanan sehat murid sekolah dasar Gugus 29 Campaga Loe Kabupaten Bantaeng*.
- Fu, Y.-C., Macasaet, B. T., Quetzal, A. S., Junedi, J., & Moradel-Vásquez, J. J. (2024). In pursuit of excellence: A historical investigation of scientific production in Indonesian higher education system, 1990-2020. *Higher Education*, 88(2), 523–549. <https://doi.org/10.1007/s10734-023-01128-3>
- Gilmour, P. M. (2024). Enhancing research collaboration within a large university department. *Innovations in Education and Teaching International*, 61(4), 622–635. <https://doi.org/10.1080/14703297.2023.2209064>
- Hendriarto, P. (2021). University strategy in improving research performance. *Journal of Higher Education Policy and Management*, 43(5), 512–526.
- Hermanu, A. I., Sari, D., Sondari, M. C., & Dimyati, M. (2022). Is it necessary to evaluate university research performance instrument? Evidence from Indonesia. *Cogent Social Sciences*, 8(1), 2069210. <https://doi.org/10.1080/23311886.2022.2069210>
- Hermanu, A. I., Sari, D., Sondari, M. C., & Dimyati, M. (2024). Higher education research performance parameters classified by systems theory: Antecedents for the development of assessment models. *Journal of Science and Technology Policy Management*, 15(4), 818–838. <https://doi.org/10.1108/JSTPM-05-2022-0089>
- Kadikilo, A. C., Nayak, P., & Sahay, A. (2024). Barriers to research productivity of academics in Tanzanian higher education institutions: The need for policy interventions. *Cogent Education*, 11(1), 2351285. <https://doi.org/10.1080/2331186X.2024.2351285>
- Khuram, S., Rehman, Ch. A., Nasir, N., & Elahi, N. S. (2023). A bibliometric analysis of quality assurance in higher education institutions: Implications for assessing university's societal impact. *Evaluation and Program Planning*, 99, 102319.
- Krooi, M., Whittingham, J., & Beausaert, S. (2024). Introducing the 3P conceptual model of internal quality assurance in higher education: A systematic literature review. *Studies in Educational Evaluation*, 82, 101360. <https://doi.org/10.1016/j.stueduc.2024.101360>
- Kwiek, M. (2021). The prestige economy of higher education journals: A quantitative approach. *Higher Education*, 81, 493–519. <https://doi.org/10.1007/s10734-020-00553-y>

- Lee, S., & Bozeman, B. (2005). The impact of research collaboration on scientific productivity. *Social Studies of Science*, 35(5), 673–702. <https://doi.org/10.1177/0306312705052359>
- Lee, Y. H. (2021). Determinants of research productivity in Korean universities: The role of research funding. *The Journal of Technology Transfer*, 46, 1462–1486. <https://doi.org/10.1007/s10961-020-09817-2>
- Mireku, D. O., & Bervell, B. (2024). A decade of quality assurance in higher education (QAiHE) within sub-Saharan Africa: A literature review based on a systematic search approach. *Higher Education*, 87(5), 1271–1316. <https://doi.org/10.1007/s10734-023-01064-2>
- Ocampo, L., Aro, J. L., Evangelista, S. S., Maturan, F., Yamagishi, K., Mamhot, D., Mamhot, D. F., Calibo-Senit, D. I., Tibay, E., Pepito, J., & Quiñones, R. (2022). Research productivity for augmenting the innovation potential of higher education institutions: An interpretive structural modeling approach and MICMAC analysis. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 148. <https://doi.org/10.3390/joitmc8030148>
- Paulus, T. M., & Lester, J. N. (2022). *Doing qualitative research in a digital world*. SAGE Publications.
- Prasojo, L. D., Yuliana, L., & Prihandoko, L. A. (2025). Research performance in higher education: A PLS-SEM analysis of research atmosphere, collaboration, funding, competence, and output, especially for science and engineering facilities in Indonesian universities. *ASEAN Journal of Science and Engineering*, 5(1), 123–144. <https://doi.org/10.17509/ajse.v5i1.81224>
- Purnomo, A., Suryadi, D., & Santoso, H. (2021). Academic incentives and research productivity. *Jurnal Pendidikan Indonesia*, 10(2), 200–210.
- Ramaditya, M., Maarif, M. S., Affandi, J., & Sukmawati, A. (2022). Reinventing talent management: How to maximize performance in higher education. *Frontiers in Education*, 7. <https://doi.org/10.3389/feduc.2022.929697>
- Rambe, R. N. K. (2018). Penerapan strategi Index Card Match untuk meningkatkan hasil belajar siswa pada mata pelajaran Bahasa Indonesia. *Jurnal Tarbiyah: Jurnal Ilmiah Kependidikan*, 25(1), 93–124. <https://doi.org/10.30829/tar.v25i1.237>
- Salmi, J. (2021). *Building research universities in developing countries*. World Bank Publications.
- Yudistira, M. H., Sofiyandi, Y., & Saputra, P. M. (2022). Research collaboration and productivity in Indonesia. *Bulletin of Indonesian Economic Studies*, 58(1), 95–120.