

THE STUDY OF RESEARCH MANAGEMENT STANDARDS AT UNIVERSITAS DOKTOR NUGROHO MAGETAN AND INSTITUTO POLITECNICO DE BETANO TIMUR LESTE

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Abstract

This study aims to 1) Analyze the research management standards applied at Universitas Doktor Nugroho Magetan and Instituto Politecnico De Betano, with a focus on the structures, policies, and procedures that support research activities at both institutions. 2) Evaluate the factors that influence the effectiveness of research management at both institutions, including the constraints faced in terms of funding, infrastructure, human resources, and research collaboration both nationally and internationally. 3) Compare research management practices at Universitas Doktor Nugroho Magetan and Instituto Politecnico De Betano, and identify similarities and differences in research management at both higher education institutions from different countries. 4) Provide recommendations based on research findings to improve research management standards at both institutions, in order to support the development of better quality and quantity of research in the future. This study combines qualitative data obtained through in-depth interviews, observations, and quantitative data collected through interviews and questionnaires. The conclusion of this study is that research management at Universitas Doktor Nugroho Magetan (UDN) has implemented eight national standards comprehensively according to SN-Dikti, with a relatively well-established institutional and quality assurance system. Meanwhile, Instituto Politecnico De Betano (IPB) is still in the process of consolidating towards a more structured research management system, in line with the national regulatory framework of Timor-Leste (Decree-Law No. 03/2024 and Ministerial Diploma No. 34/2021). The effectiveness of research management in both institutions is greatly influenced by human resource capacity, infrastructure availability, and policy and funding support. UDNM shows excellence in integrating research into the tridharma and internal quality-based management, while IPB stands out in the flexibility of international partnerships despite being constrained by limited facilities and human resources.

Keywords: *Research Management Standards, Higher Education.*

INTRODUCTION

The existence of national standards in the field of research aims to realize the quality of national education in order to educate the nation's life, shape the character and civilization of a dignified nation. Quality assurance is carried out by compiling National Standards for Research as a basis for minimum achievement in a cycle organized by the Postgraduate School, Faculty, Department, Study Program so that university graduates can achieve the minimum criteria for research procedures at the level of education that apply throughout the jurisdiction of the Unitary State of the Republic of Indonesia. In accordance with the Regulation of the Minister of Research, Technology, and Higher Education Number 44 of 2015 concerning National Standards for Higher Education (Fitri et al., 2021).

To achieve this goal, clear and structured research management standards are needed to ensure that research activities are carried out efficiently, effectively, and produce outputs that are relevant to the needs of society and industry to support the strengthening of research standards in higher education. (Alainati et al., 2022) revealed that research in higher education has eight existing standards. Universitas Doktor Nugroho Magetan and Instituto Politecnico De Betano Timor Leste have different characteristics and challenges in the context of research management. Universities in Indonesia, with a longer academic tradition, and the Institute in Timor Leste, which is still developing, face different needs related to

research management that can support the achievement of the vision and mission of each institution. Therefore, it is important to conduct a study on research management standards in both institutions to identify best practices, obstacles faced, and differences and similarities in managing research. This research is important to conduct because it can provide a comprehensive picture of research management practices and standards applied in two higher education institutions in different countries. By comparing the two universities/institutions, this study can identify key factors that influence success or failure in research management, and offer recommendations that can be used to improve the quality and quantity of research in the future.

This can also be a consideration for parties involved in developing higher education systems in both countries, to improve research systems that are more collaborative, efficient and have an impact on national development. Tampubolon, MA, & Prabowo, H. (2020) critically examines the condition of research management in Indonesian universities by highlighting several important aspects that are the main challenges. The main focus of this study is on three things: limited research funding, the quality of research outputs that are still diverse, and the use of digital technology in the management process and dissemination of research results. The author highlights that in the era of the Industrial Revolution 4.0, the demands for productivity and relevance of research are increasing, but many higher education institutions are not yet structurally or culturally ready to manage a research system that is adaptive to technological changes and industrial needs. Budget constraints and lack of integration between research and the industrial sector are the main obstacles to increasing research output that has an impact Noh, NA, & Kamaruddin, M. (2021)

Similar research in developing countries by Azevedo et al. (2018) shows that institutions in developing countries tend to have greater challenges in terms of research infrastructure, international collaboration, and the application of international standards in research management. Another study from (Fitri et al., 2021) which discusses Higher education institutions are a knowledge sector in a society, because they are responsible for the production and dissemination of knowledge needed for the growth and development of society. Therefore, the management of research outputs from higher education institutions has become a priority for society. As a desktop research study, this study contributes to the growing literature on research management in higher education institutions by outlining a number of challenges faced and possible solutions that can be applied to overcome these challenges (Agbede & Dzwaairo, 2022)

In Timor Leste, despite some efforts to build research infrastructure, research on research management standards at the university level is still very limited. Research by Pereira (2017) at the Instituto Politecnico De Betano found that research management at the institution is still highly dependent on external resources and is often poorly structured. However, this study also shows efforts to develop more systematic policies to support future research activities. This study is expected to contribute to the development of a better research management system at Universitas Doktor Nugroho Magetan and Instituto Politecnico De Betano, as well as provide a clearer picture of the challenges and opportunities faced.

LITERATURE REVIEW

Research Management

Research management is the main foundation in developing research in higher education which involves planning, organizing, implementing, and evaluating research activities (Agbede & Dzwaairo, 2022). The main objective of this management is to ensure that all resources are used efficiently and effectively to increase research productivity (Suryana, 2020). In the context of Indonesian national regulations, Permenristekdikti No. 44 of 2015 explicitly emphasizes the need for standardized and measurable research management. This process includes not only administrative aspects but also institutional strategies to address global challenges (Stanton & Wagner, 2019). Therefore, research management is positioned as a strategic tool in strengthening the academic role of higher education.

Aspects of Research Management

Aspects of research management include six important stages, namely: planning, organizing, implementing, monitoring, evaluating, and disseminating. Planning is the starting point that ensures the suitability of research with the institution's vision and the needs of society (Tampubolon & Prabowo, 2020). Organizing involves managing human resources and research facilities so that research implementation runs in a coordinated manner (UNESCO, 2021). Implementation includes data collection, analysis, and documentation by following the principles of ethics and accountability (NIH, 2020). Meanwhile, evaluation and dissemination function to ensure that research outputs are not only of high quality but also widely beneficial (Borghi & Van Gulick, 2022).

Higher Education Research Standards in Indonesia

The National Standards for Higher Education in the field of Research in Indonesia include eight important components that must be implemented by all universities (Kemdikbudristek, 2023). These eight standards include results, content, processes, assessments, management, facilities and infrastructure, funding, and research ethics (Permenristekdikti No. 44 of 2015). This system is strengthened by the Internal Quality Assurance System (SPMI) and the External Quality Assurance System (SPME) as regulated in Permenristekdikti No. 62 of 2016. The implementation of these eight standards has been proven to increase accountability and transparency in higher education research (Handayani & Darmawan, 2022). Therefore, national standards are the main guideline in developing a culture of research quality in Indonesia.

Higher Education Research Standards in Timor Leste

The research management system in Timor Leste is developed through a national legal framework such as Decree-Law No. 03/2024 and Ministerial Diploma No. 34/2021 (MESCC, 2024). This approach aims to develop national research capacity that has not been systematically structured before. Several universities such as Instituto Politecnico De Betano are still in the system consolidation stage and need stronger institutional support. Structures such as the Research Office are used as temporary units for research management, different from permanent institutions such as LPPM in Indonesia (UNESCO, 2022). In addition, challenges faced include limited human resources, research funds, and research infrastructure (Rocha et al., 2023).

Factors Affecting the Effectiveness of Research Management

Several major factors that influence the effectiveness of research management include human resource capacity, institutional systems, and funding policies (Becker, 1993 in Azeroual et al., 2020). In the university environment, information technology support such as Research Information Systems (RIS) is also increasingly important to strengthen research data management (Azeroual et al., 2021). The imbalance between lecturers' workload, limited infrastructure, and minimal incentives are also serious obstacles, especially in developing countries (Noh & Kamaruddin, 2021). Institutions that have an autonomous research management structure and adequate digitalization are better prepared to face global challenges (Wijaya & Rahmawati, 2022). Therefore, strengthening these aspects is very important to build a competitive and sustainable research system.

Comparison of Research Management Practices in Indonesia and Timor Leste

Universities in Indonesia, such as UDN Magetan, have implemented a standardized research management system with the support of national regulations and institutions such as LPPM. Meanwhile, Instituto Politecnico De Betano is still in its early stages with policy support from MESCC and ANAAA, but does not yet have a permanent structure (Pereira, 2017; MESCC, 2024). UDN shows excellence in integrating research with the tridharma and internal quality systems, while IPB is superior in the flexibility of foreign partnerships. IPB's main constraints are in access to resources, scientific literature, and laboratories, while UDN faces challenges in increasing publication output (Tampubolon & Prabowo,

2020). This comparison reflects the differences in development phases and priorities between institutions in the two countries.

The Role of Digitalization and Open Science in Research Management

Digital transformation is an important component in strengthening the effectiveness of research management, including in data management, reporting, and collaboration. Research Information Systems (RIS) have been shown to improve the efficiency of research administration in many developed and developing countries (Azeroual *et al.*, 2021). Open science practices also enable open access to research data and results, which increases transparency and replication of scientific studies (Borghi & Van Gulick, 2022). UNESCO (2021) encourages open data as part of modern research governance that is oriented towards collaboration and social impact. Universities that integrate digital systems and open science principles have greater potential to excel in the global arena.

METHOD

This study uses a qualitative approach that is descriptive-comparative in nature, with the aim of understanding and comparing research management standards between Universitas Doktor Nugroho Magetan (UDNM) in Indonesia and Instituto Politecnico De Betano (IPB) in Timor Leste. This approach was chosen to explore the experiences, policy structures, and institutional contexts that shape research management practices in both countries. Qualitative research allows for in-depth data collection through interviews, observations, and document studies. This approach also provides space to interpret the meanings, perceptions, and social dynamics surrounding the implementation of research management standards. Thus, the results of the study are expected to not only explain the phenomenon, but also produce recommendations based on field reality.

The type of research used is a comparative case study, focusing on two higher education institutions that have different characteristics and levels of institutional maturity. Case studies allow researchers to describe the complexity of implementing research management standards in the real context of each institution. A comparative model is used to identify similarities and differences in institutional structures, resources, and quality assurance systems in research. By comparing these two case studies, researchers can assess the extent to which national and local policies influence research management practices. The choice of location also reflects the uniqueness of the geographic and regulatory contexts that impact the implementation of the research system.

The research location was conducted at two institutions: Universitas Doktor Nugroho Magetan located in Magetan Regency, East Java, Indonesia, and Instituto Politecnico De Betano located in Manufahi District, Timor Leste. The selection of these locations took into account the differences in the level of maturity of research management and the institutional structure of each research institution. The research lasted for four months, starting from April to July 2023, covering the preparation stage, data collection, and report preparation. The research schedule was divided into four stages: proposal preparation (1 month), field preparation (1 month), data collection (1 month), and analysis and reporting of results (1 month). This activity was carried out with intensive coordination between researchers, institutions, and local sources.

RESULTS AND DISCUSSION

A. Applied Research Management Standards

Universitas Doktor Nugroho Magetan (UDNM) has implemented research management standards based on the National Higher Education Standards (SN-Dikti) as stated in Permenristekdikti No. 44 of 2015 and strengthened by Permenristekdikti No. 62 of 2016 concerning the Quality Assurance System. UDNM has adopted eight research standards, especially management standards, which include planning, organizing, implementing, monitoring, and reporting research activities. The Institute for Research and Community Service (LPPM) is the main actor in the management and supervision of the quality of research activities, accompanied by a reporting system integrated with the Internal Quality Assurance

System (SPMI). Meanwhile, Instituto Politecnico De Betano (IPB) is still in the stage of consolidating its research management system. The implementation of research management standards at IPB refers to Timor-Leste's national regulations, such as Decree-Law No. 03/2024 and Ministerial Diploma No. 34/2021. At the institutional level, IPB does not yet have a permanent research institution such as LPPM, but instead uses temporary research units such as the Research Office. The research reporting and management system is carried out manually and is still limited to priority projects supported by foreign funding or collaboration with NGOs.

B. Factors Affecting the Effectiveness of Research Management

The effectiveness of research management in both institutions is influenced by several important factors. At UDNM, the dominant factors are the clarity of national regulations, the availability of basic infrastructure (laboratories, journal access, lecturer incentives), and a quality culture-based HR training system. The availability of SOPs, research information systems, and integration with the Merdeka Belajar-Kampus Merdeka policy also strengthen the effectiveness of research management. In contrast, in IPB the effectiveness of management is greatly influenced by central government support through MESCC, the limited number of lecturers with advanced research expertise, and the lack of research facilities. However, the existence of a national research structure and a results-based M&E approach provide direction for strengthening the aspects of reporting, accountability, and training of research proposals in Timor-Leste.

C. Comparison of Research Management Practices

In terms of institutional structure, UDNM already has a more established and standardized research management system, in accordance with SN-Dikti, with the existence of LPPM, incentive systems, and routine internal monitoring. Management practices at UDNM also support the integration of research with teaching and community service. In contrast, IPB shows a structure that is still developing. However, IPB is relatively superior in building external collaboration networks, both with international NGOs and bilateral projects. Its management practices are flexible but have not been consistently documented. The main weakness lies in the digital-based management system that has not been implemented.

D. Constraints in Research Management

UDN faces challenges in encouraging active participation of all lecturers in research, especially due to the high administrative and teaching burden. In addition, the number of international publications from research results is still relatively low compared to the potential it has. IPB faces structural and technical constraints, such as minimal operational research funds, uneven distribution of research laboratories, and limited access to journals or scientific literature. In addition, the absence of an incentive system and limited research human resources are major obstacles to consistent research output.

E. Recommendations for Improving Research Management Standards

To improve research management standards at UDN, it is necessary to: Integrate a digital-based research management information system. Increase the capacity of lecturers in international publications through training and mentoring. Adjust the workload of lecturers to be more balanced between teaching and research. Meanwhile, at IPB, it is recommended: Establishment of a permanent LPPM that is responsible for research governance. Increase access to research proposal training and international research funding. Strengthening digital infrastructure and laboratories and developing an output-based incentive system.

DISCUSSION

This study aims to interpret field findings in the context of relevant theories and regulations, and to link research management practices at Universitas Doktor Nugroho Magetan (UDNM) and Instituto

Politecnico De Betano (IPB) with applicable national and international standards. Comparative and thematic approaches are used to provide a comprehensive understanding of the differences and similarities in research management practices at both institutions. In general, UDN has implemented eight national research standards as stipulated in SN-Dikti, including management aspects covering planning, implementation, and reporting. This shows that the institution has built a quality culture and a fairly solid internal quality assurance system. In contrast, IPB is in a transition phase towards a more structured research management system, in line with Decree-Law No. 03/2024 and the efforts of the Ministry of Higher Education of Timor-Leste in building an accountable and open national research framework.

The factors influencing the effectiveness of research management in both institutions are highly contextual. UDN excels in terms of strengthening human resources, infrastructure, and policies that integrate research into the tridharma. On the other hand, IPB shows potential in developing research based on foreign collaboration and national priority areas, although it is still constrained by limited infrastructure and funding. This finding strengthens the opinion of Borghi & Van Gulick (2021) that a strong research system requires a stable structure, sustainable funding, and global connectivity. The comparison shows that UDN has built a standardized research ecosystem, while IPB is still in the process of adapting policies. However, IPB's flexibility in collaborating with donor agencies and international partners is a strength in building research capacity in developing countries. This finding is in line with UNESCO (2022) which mentions the importance of institutional autonomy in strengthening research in the Global South region.

The main challenges at UDN lie in optimizing publications and lecturer participation, while IPB faces structural and technical constraints. The implications of these differences indicate the need for a differentiation policy in the approach to developing research capacity, while maintaining the direction of quality, social relevance, and integration of research in learning. The recommendations offered include strengthening institutional structures (especially the establishment of LPPM at IPB), improving lecturers' research competencies, and developing a digital reporting system. A results-based management approach can also be adopted by both institutions to improve accountability and effectiveness of research in the long term (Bamberger et al., 2021).

CONCLUSION

The conclusion of the study is that research management at Universitas Doktor Nugroho Magetan (UDN) has implemented eight national standards comprehensively according to SN-Dikti, with a relatively well-established institutional and quality assurance system. Meanwhile, Instituto Politecnico De Betano (IPB) is still in the process of consolidating towards a more structured research management system, in line with the national regulatory framework of Timor-Leste (Decree-Law No. 03/2024 and Ministerial Diploma No. 34/2021). The effectiveness of research management in both institutions is greatly influenced by human resource capacity, infrastructure availability, and policy and funding support. UDNM shows excellence in integrating research into the tridharma and internal quality-based management, while IPB stands out in the flexibility of international partnerships despite being constrained by limited facilities and human resources.

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