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Faculty Research Productivity of Isabela State University Echague Cluster Towards Developing a Faculty Development Program

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Abstract

Research productivity is widely regarded as a vital aspect of Higher Education Institutions (HEIs), as it significantly contributes to academic excellence, innovation, institutional reputation, and global competitiveness. This study assessed the research productivity of faculty-researchers at the Isabela State University (ISU) Echague Cluster, with the aim of developing a faculty development program. Specifically, it examined the profile of the respondents and evaluated their research productivity in terms of research output, research funding and grants, innovation and intellectual property, research engagement and collaboration, research utilization and impact, and recognition and awards. The study also sought to determine whether significant differences existed in research productivity when respondents were grouped according to their profile. A descriptive-comparative research design was employed, involving 138 faculty researchers from the Echague, Jones, and Angadanan campuses, who were selected through purposive sampling. Data were gathered using a validated survey questionnaire and analyzed using frequency counts, percentages, means, ANOVA, and t-tests. The findings indicate that most respondents were young professionals with doctorate degrees, moderate years of service, and substantial teaching workloads. Faculty members actively participated in conference presentations and institutionally funded research projects; however, limited productivity was observed in indexed publications, patents, international collaborations, and research recognition. Significant differences in research productivity were noted according to educational attainment, training attended, designation, plantilla position, and campus assignment. The study supports SDG 4, SDG 9, and SDG 17 by promoting quality higher education, innovation, and research partnerships. Its sustainability impact lies in strengthening institutional research culture, academic productivity, knowledge generation, and long-term faculty development. The study concluded that enhanced institutional support, capability-building activities, mentorship programs, and funding opportunities would be beneficial for improving faculty research productivity and strengthening the research culture within the university.

Keywords: Research Productivity, Faculty-Researchers, Higher Education Institutions, Research Engagement, Faculty Development Program

1. Introduction

Research productivity is a critical function of Higher Education Institutions (HEIs) because it supports academic excellence, innovation, institutional reputation, and global competitiveness. Faculty research contributes not only to knowledge generation but also to improved teaching, institutional service, accreditation performance, faculty promotion, and university ranking outcomes. In the context of Isabela State University (ISU) Echague Cluster, there is a need to examine the current research productivity of faculty-researchers across research output, funding and grants, innovation and intellectual property, research engagement and collaboration, research utilization and impact, and recognition and awards. This assessment serves as a basis for developing a faculty development program that can strengthen institutional research culture and improve scholarly performance.

Research productivity has become one of the major indicators of quality and competitiveness among HEIs. Universities increasingly use measurable indicators such as publications, patents, citations, and collaborations to assess institutional performance and research capability (Sukoco et al., 2023; Uwizeye et al., 2022). Through research, faculty members contribute to knowledge production, improve instruction, and enhance the academic services of their institutions. However, many HEIs, particularly in developing countries, continue to experience challenges that hinder faculty research productivity, including limited funding, heavy teaching loads, and inadequate institutional support (Kadikilo et al., 2023; Uwizeye et al., 2022). In the Philippines, research productivity is an important expectation for State Universities and Colleges (SUCs). It is connected to faculty promotion, accreditation, institutional evaluation, and university rankings. Agencies such as the Commission on Higher Education (CHED) and the Department of Budget and Management (DBM) support faculty research through policies, funding opportunities, and evaluation mechanisms. Although research

publications in the country have increased, many faculty members still face barriers such as insufficient research training, limited funding, heavy teaching loads, and low publication outputs (Armas, 2025; Niez, 2024).

The literature emphasizes that faculty research productivity is influenced by both individual and institutional factors. At the individual level, faculty qualifications, professional competencies, research skills, training participation, and academic experience affect the capacity to produce scholarly outputs. At the institutional level, funding support, research mentoring, collaboration opportunities, workload management, and access to research infrastructure contribute to faculty productivity. Recent studies show that HEIs measure research performance through outputs such as indexed publications, funded projects, intellectual property, research collaboration, policy or community utilization, and awards. These indicators reflect the multidimensional nature of research productivity, which includes not only the number of completed studies but also their publication quality, innovation potential, institutional relevance, and societal impact (Sukoco et al., 2023; Uwizeye et al., 2022). The literature also identifies persistent challenges in faculty research work. Limited funding, lack of institutional support, inadequate training, and heavy workload continue to affect research engagement, particularly in developing-country HEIs (Kadikilo et al., 2023; Uwizeye et al., 2022). In the Philippine setting, similar issues are observed among faculty members who aim to publish in indexed journals but experience resource, capability, and institutional support limitations (Armas, 2025; Niez, 2024).

Globally, research productivity is associated with the ability of universities to contribute to innovation, knowledge generation, and international academic visibility. HEIs are increasingly evaluated through research-related indicators, including publications, citations, patents, collaborations, and research impact (Sukoco et al., 2023; Uwizeye et al., 2022). These indicators influence global competitiveness and institutional reputation. Nationally, Philippine SUCs are expected to strengthen research productivity as part of their academic mandate. Research performance is linked to institutional quality assurance, accreditation, faculty promotion, and national higher education priorities. Despite recent improvements in publication outputs, many faculty members still encounter limitations in research funding, training, workload management, and publication support (Armas, 2025; Niez, 2024). Locally, Isabela State University continues to implement initiatives that promote research culture, faculty development, and institutional research engagement across the Echague Cluster. However, there remains a need to assess the actual research productivity of faculty-researchers in the Echague, Jones, and Angadanan campuses. Examining productivity across research output, funding, innovation, collaboration, utilization, and recognition can provide baseline evidence for improving research programs and faculty development initiatives (Malaga, 2025; Rogayan Jr. & Corpuz, 2022).

The study is anchored on the Resource-Based View (RBV) and Human Capital Theory. The Resource-Based View explains that institutional resources, support systems, capabilities, and organizational advantages influence performance outcomes. In the context of faculty research productivity, institutional resources such as funding, mentoring, training, collaboration mechanisms, research incentives, and administrative support can strengthen the capacity of faculty members to produce scholarly outputs. Human Capital Theory explains that individual competencies, qualifications, skills, training, and professional experience contribute to productivity. Applied to this study, faculty profile variables such as age, educational attainment, training attended, length of service, designation, plantilla position, teaching workload, and campus assignment may influence research productivity. The dependent variable is research productivity, measured through research output, research funding and grants, innovation and intellectual property, research engagement and collaboration, research utilization and impact, and recognition and awards.

Although studies on research productivity in Philippine HEIs have increased, limited research has focused specifically on the Isabela State University Echague Cluster. Many previous studies have examined factors affecting research productivity, but fewer have assessed the actual level and status of faculty research productivity across multiple productivity indicators. There is also limited empirical evidence on how faculty profile variables influence research productivity within the ISU context. This study addresses this gap by providing baseline data on the research productivity of faculty-researchers in the ISU Echague Cluster. The findings may support the development of a faculty development program that responds to the identified strengths and limitations of faculty research performance. Specifically, the study examines the profile of faculty-researchers, determines their research productivity, tests significant differences in productivity when grouped according to profile variables, and proposes a faculty development program based on the results.

This study aligns primarily with SDG 4 – Quality Education because it focuses on strengthening faculty research productivity, improving institutional research culture, and enhancing the academic capacity of higher education personnel. By assessing research output, training needs, publication capacity, collaboration, and institutional support, the study contributes to the improvement of higher education quality. The study also supports SDG 9 – Industry, Innovation and Infrastructure because it includes innovation and intellectual property as indicators of faculty research productivity. The emphasis on patents, copyrights, utility models, trademarks, and research-based outputs reflects the role of universities in promoting innovation and knowledge-based development. The study further relates to SDG 17 – Partnerships for the Goals because research engagement and collaboration are key dimensions of the assessment. The focus on local and international

research networks, collaborative projects, and institutional linkages supports the importance of partnerships in advancing academic research and institutional development.

The study contributes to educational sustainability by providing evidence that may guide faculty development programs, research training, publication mentoring, and institutional support mechanisms. Strengthening faculty research productivity helps sustain a research-oriented academic environment and improves the capacity of HEIs to generate knowledge for instruction, extension, policy, and innovation. It also contributes to institutional sustainability by helping ISU identify areas that need improvement, particularly in indexed publications, research funding, intellectual property, collaboration, utilization, and recognition. Baseline data from the study can support long-term planning, research policy enhancement, and faculty capability-building initiatives. Finally, the study supports innovation and knowledge sustainability by emphasizing research utilization, intellectual property development, and collaborative research engagement. These areas are important in ensuring that faculty research does not remain limited to academic compliance but contributes to broader institutional relevance, community impact, and sustainable higher education development.

2. Material and methods

2.1 Research Design

The study used a descriptive-comparative research design. The descriptive method was applied to present the profile of the respondents and determine their level of research productivity, while the comparative method was used to examine whether significant differences existed in research productivity when respondents were grouped according to age, educational attainment, training attended, length of service, designation, plantilla position, teaching workload, and campus assignment.

2.2 Locale of the Study

The study was conducted at the Isabela State University Echague Cluster in the Province of Isabela, Region II, Philippines. It specifically covered the Echague, Jones, and Angadanan campuses. These campuses were selected because their faculty members were actively involved in instruction, research, and extension, and because the university continues to promote research productivity through institutional programs and research-related activities.

2.3 Respondents of the Study

The respondents were faculty-researchers of the Isabela State University Echague Cluster who held permanent positions during academic years 2021–2022 to 2023–2024. Faculty members under Contract of Service arrangements were excluded. The respondents represented different academic ranks, educational qualifications, years of service, designations, teaching workloads, and campus assignments, making them appropriate sources of data on faculty research productivity.

2.4 Sample and Sampling Procedure

Purposive sampling was used to select qualified respondents for the study. From the total population of faculty-researchers in the ISU Echague Cluster, 138 respondents were identified using a 95% confidence level and a 5% margin of error. The respondents were proportionally distributed among the Echague, Jones, and Angadanan campuses to ensure representation across the cluster.

2.5 Research Instrument

A structured survey questionnaire served as the primary data-gathering instrument. The questionnaire consisted of two parts: the first part gathered the respondents' profile, while the second part measured research productivity in terms of research output, research funding and grants, innovation and intellectual property, research engagement and collaboration, research utilization and impact, and recognition and awards. The instrument was validated by experts to ensure clarity and reliability before its administration.

2.6 Data Gathering Procedure

Before data collection, the researcher secured permission from the university authorities and campus administrators. After approval was granted, the survey questionnaires were distributed to the qualified respondents. The purpose of the study was explained to the participants, and they were encouraged to answer honestly. After retrieval, the responses were checked, organized, and prepared for statistical analysis. Confidentiality of all responses was observed throughout the process.

2.7 Data Analysis Techniques

The data were analyzed using appropriate statistical tools. Frequency counts and percentages were used to describe the respondents' profile and research productivity. The mean was used to determine the level of research productivity. ANOVA and t-test were applied to determine whether significant differences existed in research productivity when respondents were grouped according to their profile variables. The results were interpreted using descriptive analysis.

2.8 Ethical Considerations

The researchers adhered to institutional ethical standards throughout the study. Participation was voluntary, and informed consent was obtained before the survey questionnaires were distributed. The respondents were informed of the objectives and significance of the study, and their responses were kept confidential and used solely for academic purposes. The study maintained anonymity and privacy, secured permission from concerned university authorities, declared no conflict of interest, and observed proper acknowledgement of cited sources and academic integrity standards.

3. Results and Discussion

3.1 Faculty Profile and Research Productivity

3.1.1 Profile of Faculty-Researchers

The respondents were mostly aged 26–35 years old, followed by those aged 36–45 years old. Most held doctorate degrees had attended 0–10 research-related trainings and had served the university for 3–12 years. In terms of designation, the largest group had no administrative, extension, or research designation, while others held administrative, research, extension, or combined roles. Most respondents were instructors, followed by associate professors and assistant professors. The majority carried 21 teaching units and were assigned to the Echague Campus, with fewer respondents from Jones and Angadanan campuses. These findings indicate that the faculty-researchers were generally young to mid-career professionals with strong educational qualifications but substantial teaching responsibilities. Their academic preparation suggests potential for research engagement, while their workload and varying institutional roles may affect the extent to which they can participate in research activities.

3.1.2 Research Productivity across Key Indicators

The findings showed limited research productivity in several areas. More than half of the respondents had no Scopus or Web of Science-indexed publications, while many had participated in only one to five international conference presentations. Most had no externally funded research projects, although nearly all had participated in institutionally funded projects. Patent outputs, copyrights, utility models, trademarks, international research networks, international collaborative projects, policy citations, community extension utilization, research awards, and editorial board memberships were generally low. These results suggest that faculty members were engaged in research activities, particularly conference presentations and institutionally funded projects, but had limited productivity in high-impact indicators such as indexed publications, external grants, patents, international collaborations, research utilization, and recognition. Similar observations were made by Niez (2024), who highlighted the difficulties faced by Filipino faculty members in publishing in indexed journals due to resource constraints and other barriers. Uwizeye et al. (2022) also identified inadequate funding and weak research support systems as prevalent factors impeding research productivity in higher education institutions. Malaga (2025) emphasized that faculty capability and institutional support are critical factors in augmenting research productivity and innovation, while Rogayan Jr. and Corpuz (2022) noted that research collaboration and institutional research programs play pivotal roles in bolstering research productivity in state universities.

3.1.3 Significant Differences in Research Productivity by Profile Variables

The results showed significant differences in research productivity when faculty-researchers were grouped according to educational attainment, trainings attended, designation, plantilla position, and campus assignment, as their p-values were below the 0.05 level of significance. However, age, length of service, and teaching workload showed no significant differences in research productivity. These findings imply that research productivity is more strongly influenced by academic qualification, professional development, institutional role, employment rank, and campus-based resources than by age, years of service, or teaching workload. Higher educational attainment appears to support greater research output, consistent with the observation that higher education enhances job stability, skill acquisition, and output quality (Dargenyte -Kacilevic iene et al., 2023). Participation in targeted training programs also improves research capability and efficiency (Uwizeye et al., 2022). Institutional designations and higher positions may provide greater access to resources, motivation, and research expectations (Jegede et al., 2025). The significant effect of campus assignment suggests that resource availability and institutional environment may shape productivity differences across academic units (Jegede et al., 2025; Sharma & Kohli, 2022; Uwizeye et al., 2022).

3.1.4 Ranking of Research Productivity Indicators

Research output ranked highest among the research productivity indicators, followed by research utilization and impact, research engagement and collaboration, research funding and grants, recognition and awards, and innovation and intellectual property. The highest mean was recorded for research output, while innovation and intellectual property obtained the lowest mean. This ranking shows that research productivity was primarily reflected in output generation and utilization, while innovation-related outputs remained comparatively weak. The results suggest that productivity should not be viewed only in terms of publication quantity but also through utilization, collaboration, funding, recognition, and innovation. Studies in regional and institutional contexts emphasize the importance of increasing publications in high-impact venues and fostering international collaborations to boost productivity and impact (Dardas et al., 2023; Jamali et

al., 2023). Effective funding acquisition also remains a key support mechanism for sustained research activity but should be integrated with collaboration and impact assessment to improve productivity (Agarwal & Tu, 2021).

3.2 Proposed Faculty Development Program

3.2.1 Priority Program Components for Enhancing Research Productivity

The proposed faculty development program focused on research capability enhancement, publication and mentorship, research funding and grants support, collaboration and networking, innovation and intellectual property development, research recognition and incentives, research workload management, and monitoring and evaluation. These components were designed to improve faculty competence in research writing, increase publication outputs in indexed and accredited journals, expand externally funded projects, strengthen local and international linkages, promote intellectual property registration, motivate faculty researchers, provide time for research activities, and continuously monitor research productivity. The proposed program responds to the identified limitations in indexed publications, patents, international collaborations, research awards, and external grants, while building on faculty engagement in conference presentations and institutionally funded projects. The integration of artificial intelligence in education can also improve critical thinking and innovative teaching practices among faculty members (Anselmo et al., 2025). Uwizeye et al. (2022) explained that capability-building activities help improve research productivity in higher-education institutions. Rogayan Jr. and Corpuz (2022) emphasized that mentorship and collaboration strengthen research productivity among faculty members. Agarwal and Tu (2021) state that financial support is important for sustaining research productivity, while Jamali et al. (2023) identified partnerships and collaborative research activities as essential for improving research engagement and academic visibility. Malaga (2025) further noted that institutional support is necessary to improve innovation and research productivity.

4. Conclusion & Recommendations

The study concluded that the research productivity of faculty-researchers in the Isabela State University Echague Cluster remains limited in indexed publications, patents, international collaborations, and research recognition, although faculty members showed active participation in conference presentations and institutionally funded research projects. The findings further revealed that educational attainment, trainings attended, designation, plantilla position, and campus assignment significantly influenced research productivity, while age, length of service, and teaching workload did not show significant differences. Overall, the study emphasized the need for stronger institutional support, professional development, and research capability enhancement to improve faculty research productivity and strengthen the university's research culture.

It is recommended that the university strengthen its faculty development initiatives through continuous research capability training, publication mentoring, grant-writing workshops, and collaborative research activities. Additional funding opportunities, research incentives, and institutional support mechanisms should also be provided to encourage greater faculty participation in scholarly work. Moreover, stronger research linkages with local and international institutions may help improve publication output, innovation, collaboration, and academic visibility among faculty members.

The study was limited to permanent faculty-researchers from the Isabela State University Echague Cluster during the specified academic years; therefore, the findings may not be generalized to other campuses or institutions. It also relied mainly on self-reported responses, which may involve bias or inaccuracies, and focused only on selected variables related to research productivity without including other possible factors such as personal motivation, organizational culture, or technological readiness.

Compliance with ethical standards

The researchers adhered to institutional ethical standards in conducting the study on faculty research productivity at Isabela State University Echague Cluster. Participation was voluntary, and informed consent was obtained from all respondents before data collection. The confidentiality, anonymity, and privacy of the participants were strictly observed, and all information gathered was used solely for academic purposes. Permission and ethical approval were secured from the concerned university authorities prior to the conduct of the study. The authors declare no conflict of interest, properly acknowledge all contributors and cited sources, and affirm that the manuscript complies with copyright ownership, authorship responsibility, and academic integrity standards.

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