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FOREWORD

It is with great pride that we present NILAD Journal, Volume 5, Issue No. 1 (2026), a special issue featuring ten scholarly articles developed through Research Connect 2025, the research capability-building program of the Universidad de Manila. This volume reflects the University's continuing commitment to strengthening research engagement, advancing scholarly productivity, and promoting a culture in which inquiry becomes an integral part of academic and institutional development.

The ten articles included in this issue represent the diverse interests, experiences, and research concerns of members of the Universidad de Manila academic community. While varied in discipline, focus, and methodological approach, these studies share a common purpose: to generate evidence to inform improved practice, informed decision-making, institutional development, and a deeper understanding of issues relevant to education, governance, professional practice, and the broader community.

Research Connect 2025 was designed not merely as a series of research seminars, but as a developmental platform that encouraged participants to move from research ideas toward completed scholarly outputs. Through structured learning, mentoring, consultation, collaboration, and sustained research support, participants were provided with opportunities to strengthen their competencies in conceptualizing studies, developing appropriate methodologies, analyzing and interpreting evidence, and preparing manuscripts for scholarly dissemination. The publication of these ten articles is therefore both an academic accomplishment and a tangible outcome of the University's investment in the development of research capability.

This issue also underscores an important principle in higher education: a strong research culture is built progressively. It grows when institutions create opportunities for researchers to ask meaningful questions, confront methodological challenges, collaborate with colleagues, receive constructive guidance, and communicate their findings to wider audiences. Publication is not simply the final stage of this process; it is part of a continuing scholarly conversation in which evidence is examined, challenged, refined, and applied.

The Editorial Board of NILAD Journal acknowledges the authors for their perseverance in developing and refining their studies and for entrusting their scholarly work to this publication. We likewise recognize the mentors, reviewers, research facilitators, editors, and the URELIA - Research Unit whose guidance and critical engagement contributed to the development of these manuscripts. The support of the University administration is equally acknowledged for sustaining programs that encourage research participation and provide avenues for scholarly dissemination.

As readers engage with the studies presented in this volume, we hope that the findings stimulate further inquiry, encourage interdisciplinary dialogue, and contribute to evidence-informed academic and institutional practices. More importantly, may this issue inspire other members of the Universidad de Manila community to view research not merely as a requirement or professional obligation, but as a meaningful means of addressing problems, generating knowledge, improving practice, and serving society.

NILAD Journal, Volume 5, Issue No. 1 (2026) stands as a testament to what can be achieved when research capability development is linked with mentoring, institutional support, scholarly rigor, and opportunities for publication. May the work presented in these pages serve as both a record of the accomplishments of Research Connect 2025 and a foundation for a stronger, more collaborative, and more productive research culture at Universidad de Manila.



RACIDON P. BERNARTE, DEM

Editor-in-Chief

NILAD - A Multidisciplinary Journal of Universidad De Manila



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MESSAGE FROM THE University President

It is with great pride that I extend my warmest greetings to the readers, authors, researchers, reviewers, and members of the academic community on the publication of NILAD Journal, Volume 5, Issue No. 1 (2026).

This issue is especially significant as it features ten scholarly articles developed through Research Connect 2025, the research capability-building program of Universidad de Manila. The publication of these studies reflects the dedication of our faculty and academic personnel to advancing knowledge, strengthening professional practice, and contributing meaningfully to institutional and societal development.

Research remains a vital function of the University. It enables us to better understand the challenges confronting our communities, evaluate existing practices, develop responsive solutions, and make evidence-based decisions. As a public higher education institution, Universidad de Manila is responsible not only for providing accessible, high-quality education but also for cultivating scholarship that is relevant, ethical, and responsive to the needs of the City of Manila and the wider society.

The accomplishments represented in this volume demonstrate the value of sustained research capability development. Research Connect 2025 provided an avenue for participants to strengthen their competencies in research conceptualization, methodology, analysis, scholarly writing, and dissemination. More importantly, it encouraged a culture of collaboration, mentoring, perseverance, and continuous improvement. The transformation of these research initiatives into published scholarly works is a concrete expression of the University's commitment to developing a productive and sustainable research environment.

I commend the authors for their commitment to completing and refining their studies. I likewise acknowledge the URELIA – Research Unit, the editors and reviewers of NILAD Journal, the research mentors and facilitators, and all university officials and academic units whose support contributed to the successful implementation of Research Connect 2025 and the publication of this volume.

May the studies contained in this issue serve not only as academic outputs but also as sources of insight for policy development, educational improvement, institutional innovation, and future research. I encourage our faculty, administrative personnel, students, and research partners to continue asking relevant questions, pursuing rigorous inquiry, and translating evidence into actions that benefit our University and the communities we serve.

As Universidad de Manila continues to strengthen its research culture, may NILAD Journal remain an important platform for scholarly exchange, responsible knowledge production, and the dissemination of research that advances our collective pursuit of academic excellence and public service.

Congratulations to everyone who contributed to NILAD Journal, Volume 5, Issue No. 1 (2026). May this publication inspire further scholarship and reaffirm our shared commitment to making research an enduring pillar of Universidad de Manila.



MA. FELMA CARLOS-TRIA, Ed.D.
University President
Universidad de Manila



MESSAGE FROM THE Vice President for Academic Affairs

It is a privilege to join the Universidad de Manila academic community in celebrating the publication of NILAD Journal, Volume 5, Issue No. 1 (2026).

This volume is particularly meaningful because the ten articles featured in this issue were developed through Research Connect 2025, an institutional research capability-building initiative that reflects the University's continuing commitment to strengthening scholarship among its faculty and academic personnel. The completion and publication of these studies demonstrate how sustained mentoring, structured research development, and institutional support can translate ideas into meaningful scholarly outputs.

From the perspective of academic affairs, research is inseparable from quality instruction, curriculum development, professional growth, and institutional improvement. A university becomes more responsive and relevant when its academic decisions are informed by evidence, when faculty members actively contribute to knowledge production, and when research findings are brought back into teaching, policy, and practice. The studies presented in this volume, therefore, represent more than mere publications; they contribute to the broader academic mission of Universidad de Manila.

Research Connect 2025 has provided a valuable platform for strengthening competencies in research conceptualization, methodology, analysis, scholarly writing, collaboration, and dissemination. More importantly, it has encouraged participants to regard research as a continuing academic responsibility and a means of responding to institutional and societal concerns. The publication of these ten articles affirms the importance of creating developmental pathways that support researchers from the initial formulation of ideas to the communication of completed work.

I commend the authors for their perseverance and commitment to scholarly inquiry. I also recognize the invaluable contributions of the URELIA - Research Unit, the Editorial Board of NILAD Journal, the reviewers, mentors, research facilitators, and all academic and administrative units that supported the development and publication of this issue. Their collective efforts reflect the collaborative nature of a strong research culture.

As we move forward, I encourage our faculty members, researchers, and academic leaders to continue integrating research with teaching, extension, curriculum enhancement, and institutional planning. Research becomes most meaningful when it informs decisions, improves educational practice, addresses emerging concerns, and creates measurable value for learners, institutions, and communities.

May NILAD Journal, Volume 5, Issue No. 1 (2026) serve as a source of knowledge, inspiration, and further inquiry. May it also strengthen our resolve to cultivate an academic environment where research is supported, scholarship is valued, and evidence-informed practice remains central to the pursuit of academic excellence.

Congratulations to the authors and to everyone who contributed to this publication. May this issue mark another significant step in advancing the research and academic agenda of Universidad de Manila.



REJAN L. TADEO, Ph.D.
Vice President for Academic Affairs
Universidad De Manila



MESSAGE FROM THE Managing Editor

It is with great pleasure that I welcome our readers to NILAD Journal, Volume 5, Issue No. 1 (2026).

This issue is especially significant because it brings together ten scholarly articles developed through Research Connect 2025, the research capability-building program of Universidad de Manila. Their publication reflects a deliberate institutional effort to strengthen research participation, improve scholarly writing, and support the transformation of research ideas into completed and disseminated academic work.

For the Editorial Team, this volume represents more than the completion of another journal issue. It demonstrates the value of sustained research mentoring, editorial guidance, peer review, and institutional support in developing a stronger culture of scholarship. Each manuscript underwent refinement to improve clarity, methodological alignment, interpretation of findings, and overall contribution to academic discourse.

The studies in this volume cover diverse concerns, yet they are united by a common commitment to evidence-based inquiry. Collectively, they show how research can contribute to institutional improvement, professional practice, teaching and learning, policy development, and broader community engagement. They also reflect the growing willingness of members of the Universidad de Manila academic community to participate more actively in knowledge production and scholarly dissemination.

I extend my appreciation to all the authors for their persistence, openness to revision, and commitment to improving their manuscripts. I likewise acknowledge the reviewers, editors, research mentors, and members of the URELIA – Research Unit whose efforts helped ensure that the articles were developed with greater rigor and coherence. The support of the University administration has also been essential in sustaining the conditions necessary for research development and publication.

As Managing Editor, I view NILAD Journal as both a scholarly platform and a developmental space. Its role is not only to publish research, but also to help cultivate responsible academic writing, sound research practice, critical reflection, and meaningful scholarly exchange. Through this function, the journal contributes to strengthening institutional research capacity while providing researchers with an avenue to share findings that may inform future studies, programs, and decisions.

May the publication of Volume 5, Issue No. 1 (2026) encourage more faculty members, administrative personnel, students, and research collaborators to pursue meaningful inquiry and contribute to the expanding body of scholarship produced by Universidad de Manila.

On behalf of the Editorial Team, I congratulate all contributors to this issue and thank our readers for their continued support of NILAD Journal.


SILVIA C. AMBAG, DEM
Managing Editor

NNILAD – A Multidisciplinary Journal of Universidad De Manila



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Call for Papers

Volume 5, Issue No. 2, 2026

About the NILAD Journal

NILAD is the Universidad De Manila interdisciplinary, peer-reviewed publication. It is concerned with developing and producing new knowledge and innovations throughout Arts and Sciences, Business and Management, Criminal Justice, Education, Engineering and Technology, Health Sciences, and Law. Furthermore, the Journal considers new insights and innovations that would help enhance, advance, and progress the disciplines and research grounded in a local context but have global resonance.

NILAD is open to various perspectives, disciplines, strategies, and philosophies. The Journal encourages a range of techniques for empirical research (qualitative, quantitative, and mixed methodologies), as well as high-quality systematic reviews and meta-analyses.

Aims and Scope

NILAD publishes original research articles, systematic reviews, policy briefs, and meta-analyses in the following areas:

- Arts and Sciences
- Business and Management
- Criminal Justice
- Education
- Engineering and Technology
- Health Sciences
- Law
- Public Administration

Faculty Perceptions of the Effectiveness of Universidad de Manila's Professional Development Program

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ABSTRACT

This study assessed faculty perceptions of the effectiveness of the Universidad de Manila Professional Development Program and examined its timeliness, relevance, accessibility, institutional support, participation challenges, and perceived contribution to major faculty functions. A descriptive quantitative research design was employed, involving 76 faculty members from the General Education Department and seven colleges of the university. Data were summarized using frequencies, percentages, and weighted means. Findings showed that faculty participation was highest in curriculum mapping and syllabus design, pedagogy and instructional strategies, ICT and educational technology, and research writing and publication. The program received an overall weighted mean of 3.40, interpreted as Strongly Agree, indicating favorable perceptions of its content quality, learning outcomes, delivery methods, applicability, and contribution to academic responsibilities. Timeliness obtained the highest composite mean among the implementation dimensions at 3.18, followed by relevance at 3.14, accessibility at 3.07, and institutional support at 2.96. Institutional challenges, with a composite mean of 3.09, were perceived more strongly than personal challenges (2.77), particularly regarding financial assistance procedures, communication, workload, and institutional resources. Among faculty functions, teaching effectiveness received the highest perceived contribution at 3.13, followed by research engagement at 2.97, extension or expert service at 2.95, and professional growth and career progression at 2.94. The study concludes that the program is generally perceived as relevant and beneficial, but could be strengthened by differentiated, career-responsive programming, improved institutional support, streamlined funding mechanisms, accommodation of workloads, stronger research-to-publication support, enhanced recognition systems, and systematic monitoring of professional development outcomes.

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INTRODUCTION

Professional development is a central mechanism through which higher education institutions strengthen teaching practice, research capability, technological competence, and academic service. Evidence on effective professional learning consistently emphasizes relevance to actual work, active engagement, sustained duration, collaboration, feedback, and organizational support (Darling-Hammond et al., 2017; Desimone & Garet, 2015). In university settings, faculty also value professional development that is responsive to disciplinary needs, structured around meaningful collaboration, and sufficiently flexible to accommodate the complex responsibilities of academic work (Smith & Wyness, 2025).

Professional development is therefore not simply a sequence of training activities. Its effectiveness depends on the interaction among the faculty members, the institutional environment, and the characteristics of the learning activity itself. Opfer and Pedder (2011) argue that professional learning is best understood as a system in which individual needs, school or institutional conditions, and learning opportunities influence one another. This perspective is particularly relevant in higher education, where faculty are expected to perform multiple roles in instruction, research, extension, administration, and professional service.

Recent research in higher education indicates that pedagogical training can improve faculty perceptions of their teaching practices and professional growth, but the perceived usefulness of the training depends on whether the program is applicable to actual instructional demands (Fernandes et al., 2023). Digital professional learning also requires adequate infrastructure, flexible access, and organizational conditions that allow participants to translate training into practice (Montero-Mesa et al., 2023; Philipsen et al., 2021). In the Philippine context, teachers have similarly identified financial constraints, time limitations, motivation, and logistical support as barriers to sustained participation in professional development (Chin et al., 2022).

Universidad de Manila implements professional development activities intended to strengthen the teaching, research, technological, and service capabilities of its faculty. However, the existence or frequency of training does not by itself establish that a program is responsive to faculty needs. A meaningful institutional evaluation must examine not only participants' general satisfaction but also the timeliness, relevance, accessibility, institutional support, barriers to participation, and the program's perceived contribution to the different functions expected of faculty members.

The present study addresses this institutional need by examining faculty members' perceptions of the Universidad de Manila Professional Development Program. Rather than treating effectiveness as a causal outcome, the study evaluates perceived effectiveness and perceived contribution within a descriptive survey design. The findings are intended to provide evidence for improving the design, delivery, support mechanisms, and career alignment of future faculty development initiatives.

STATEMENT OF THE PROBLEM

Professional development is an essential component of faculty growth in higher education because it supports the continuous enhancement of teaching practices, research capability, professional competencies, and engagement in institutional and community functions. For a university, the value of professional development depends not only on the availability of training opportunities but also on how faculty members perceive their quality, relevance, accessibility, timeliness, and institutional support. Faculty participation may likewise be affected by personal and organizational conditions that influence their ability to attend, complete, and apply professional development activities.

At Universidad de Manila, various professional development activities have been provided to support faculty members in areas such as curriculum development, pedagogy, educational technology, research, community extension, and student support. However, there is a need to systematically document faculty perceptions of these activities and determine how they are experienced across the different dimensions of professional development. Information is needed regarding the extent to which faculty members perceive the program as effective, timely, relevant, accessible, and institutionally supported, as well as the challenges that may limit their participation.

It is also important to examine how faculty members perceive the contribution of professional development to their major academic functions. These include teaching effectiveness, research engagement, professional growth and career progression, and extension or expert service. Understanding these perceptions can provide an evidence-based basis for identifying strengths and areas of the program that may require improvement.

Accordingly, this study seeks to assess faculty perceptions of the Universidad de Manila Professional Development Program and generate recommendations to strengthen professional development initiatives at both the individual and institutional levels.

Specifically, the study seeks to answer the following research questions:

1. What is the profile of the respondents in terms of:
 - 1.1 sex;
 - 1.2 college or department;
 - 1.3 length of service; and
 - 1.4 professional development activities attended?
2. What is the level of perceived effectiveness of the Universidad de Manila Professional Development Program in terms of:
 - 2.1 quality of program content;
 - 2.2 clarity and attainment of learning outcomes;
 - 2.3 effectiveness of delivery methods;
 - 2.4 applicability of acquired skills to academic responsibilities; and
 - 2.5 perceived contribution to the University's academic excellence?
3. How do faculty members assess the Universidad de Manila Professional Development Program in terms of:
 - 3.1 timeliness;
 - 3.2 relevance;
 - 3.3 accessibility; and
 - 3.4 institutional support?
4. What personal and institutional challenges do faculty members encounter in participating in professional development activities?
5. What is the perceived contribution of professional development to faculty functions in terms of:
 - 5.1 teaching effectiveness;
 - 5.2 research engagement;
 - 5.3 professional growth and career progression; and
 - 5.4 extension or expert service?
6. Based on the findings of the study, what recommendations may be proposed to strengthen the Universidad de Manila Professional Development Program at the individual and institutional levels?

METHODOLOGY

The study employed a descriptive quantitative research design to examine faculty perceptions and experiences regarding the Professional Development Program of Universidad de Manila. A descriptive design is appropriate when the primary purpose is to characterize the attributes, experiences, opinions, or perceptions of a defined population without manipulating variables or establishing causal relationships (Siedlecki, 2020). Consistent with this design, the study focused on describing how faculty members assessed different dimensions of the professional development program rather than determining whether participation in the program directly caused changes in teaching performance, research productivity, career advancement, or other professional outcomes. Thus, the findings are interpreted in terms of perceived effectiveness and perceived contribution, which more accurately reflect the nature of the evidence generated by the study.

The analysis included 76 faculty members representing the General Education Department and seven colleges of Universidad de Manila. Respondents also varied in their length of service, providing perspectives from faculty members with different levels of institutional experience. Adequate descriptions of participants and sampling procedures are necessary to enable readers to assess the representativeness and transferability of quantitative findings (Appelbaum et al., 2018; Creswell & Creswell, 2018). However, information concerning the total eligible faculty population, sampling frame, sampling procedure, inclusion

and exclusion criteria, response rate, and specific period of data collection was not available in the submitted version of the study. The absence of these details limits the extent to which the representativeness of the 76 respondents can be evaluated and should therefore be addressed in the final documentation of the research.

Data were collected using a survey questionnaire that covered respondent characteristics, professional development activities attended, and faculty assessments of the program's general effectiveness, timeliness, relevance, accessibility, and institutional support. The questionnaire also examined personal and institutional challenges associated with participation in professional development, as well as the program's perceived contributions to teaching, research, career development, and extension or expert service. Because these dimensions represent constructs that cannot necessarily be observed directly, the quality of the measurement instrument is important to the credibility of the resulting interpretations. Boateng et al. (2018) emphasize that sound measurement requires clearly defined constructs, appropriate item development, content validation, pretesting, and evidence of reliability and validity. The available manuscript, however, does not indicate whether the questionnaire was adopted from an existing instrument, adapted from previous measures, or developed specifically for the study. Information regarding expert content validation, pilot testing, construct validation, and internal consistency reliability was likewise not reported. These psychometric properties should be documented to establish that the questionnaire adequately and consistently measured the intended dimensions of faculty perceptions.

The data were analyzed using descriptive statistical procedures consistent with the study's objectives and design. Frequencies and percentages were used to describe respondent characteristics and participation in professional development activities, while weighted means were used to summarize faculty responses concerning program effectiveness, institutional and personal challenges, and perceived professional contributions. Descriptive statistics provide numerical summaries of patterns within observed data but, in the absence of inferential statistical testing, do not establish whether observed differences between groups or mean scores are statistically meaningful (Appelbaum et al., 2018; Siedlecki, 2020). The study also employed verbal interpretations, such as "Agree" and "Strongly Agree," to interpret weighted means. For methodological transparency and reproducibility, the final manuscript should specify the exact Likert-type response scale, numerical anchors, scoring direction, and mean intervals corresponding to each verbal interpretation. Results and Discussion

RESULTS AND DISCUSSION

Respondent Profile of the Respondents

Table 1. Profile of the Respondents

Profile variable	Category	Frequency	Percentage
Sex	Male	38	50.00
	Female	36	47.37
	Prefer not to say	2	2.63
College/Department	General Education Department	28	36.84
	College of Education	11	14.47
	College of Arts and Sciences	9	11.84
	College of Business and Management	8	10.53
	College of Criminal Justice	8	10.53
	College of Public Policy and Governance	6	7.89
	College of Computing Studies	3	3.95
	College of Health and Sciences	3	3.95
	26 years and above	27	35.53

21 to 25 years	15	19.74
16 to 20 years	15	19.74
11 to 15 years	4	5.26
6 to 10 years	10	13.16
1 to 5 years	5	6.58

Table 1 presents the demographic and professional profile of the 76 faculty respondents included in the study. By sex, the distribution was nearly balanced, with 38 male respondents (50.00%) and 36 female respondents (47.37%) in the sample. Two respondents, or 2.63%, preferred not to disclose their sex. This relatively balanced representation provides perspectives from both male and female faculty members and reduces the likelihood that the descriptive results are overwhelmingly representative of only one sex. However, the distribution should be interpreted primarily as a characteristic of the sample rather than as evidence that male and female faculty members perceive the professional development program similarly. Recent higher education research suggests that demographic characteristics, including gender, may be associated with differences in perceived professional development needs in particular competency areas, although such differences must be established through appropriate inferential analysis rather than assumed from descriptive distributions alone (Zwolińska-Gładys et al., 2024).

The respondents were drawn from the General Education Department and seven academic colleges, indicating that the assessment captured faculty perspectives from multiple disciplinary and organizational units of the university. The largest proportion came from the General Education Department, with 28 respondents (36.84% of the total sample). This was followed by the College of Education with 11 respondents (14.47%), the College of Arts and Sciences with 9 respondents (11.84%), and the College of Business and Management and the College of Criminal Justice with 8 respondents each (10.53%). The College of Public Policy and Governance accounted for six respondents (7.89%), while the College of Computing Studies and the College of Health and Sciences each contributed three respondents (3.95%).

The distribution demonstrates institutional breadth but also shows uneven representation across academic units. More than one-third of all respondents were from the General Education Department, whereas some colleges were represented by only three faculty members. Consequently, the overall weighted means reported in succeeding tables may reflect the experiences of the more heavily represented academic units to a greater extent than those of units with fewer respondents. This consideration is important because professional development needs and experiences may vary across disciplinary contexts, teaching responsibilities, and organizational environments. Higher education research has increasingly emphasized that faculty professional learning should not rely exclusively on generic development activities but should recognize disciplinary contexts and locally situated professional needs (Al-Thani et al., 2023). Discipline-specific professional learning can be more relevant because faculty members encounter different pedagogical, research, technological, and professional expectations across fields. Thus, while the participation of faculty from eight units strengthens the study's institutional scope, the imbalance in representation should be considered when interpreting university-wide perceptions of program effectiveness.

The length-of-service profile provides another important dimension for interpreting the findings. The largest group consisted of faculty members who had served the university for 26 years or more, comprising 27 respondents (35.53% of the sample). Those with 21 to 25 years and 16 to 20 years of service each accounted for 15 respondents or 19.74%. Taken together, 57 of the 76 respondents, or 75.00%, had served for at least 16 years, while 42 respondents, equivalent to approximately 55.26%, had more than 20 years of institutional service. In comparison, faculty with 11 to 15 years of service accounted for 5.26%, those with 6 to 10 years accounted for 13.16%, and respondents with 1 to 5 years accounted for only 6.58%.

This distribution indicates that the study predominantly reflects the perspectives of experienced and long-serving faculty members. Such respondents potentially possess extensive institutional memory and may have participated in multiple iterations of university-sponsored professional development activities. Their assessments can therefore provide valuable insight into the continuity, relevance, and perceived evolution of the university's professional development efforts. At the same time, the predominance of senior faculty

means that the overall results may be less representative of the developmental priorities of newer faculty members. Professional development needs are not necessarily uniform throughout an academic career. Catanzano et al. (2022) emphasized that faculty development priorities differ across early-, middle-, and later-career stages, requiring institutions to consider career progression when designing professional support. More recent evidence similarly supports the development of career-stage-specific competency pathways, with early-career faculty requiring different forms of support than more established faculty members (Chon et al., 2025).

The strong representation of long-serving faculty also has implications for interpreting subsequent assessments of program relevance, accessibility, institutional support, and perceived professional contribution. Experienced faculty may evaluate professional development against a longer history of institutional practices and may have established professional identities, research interests, teaching routines, and career expectations that differ from those of faculty early in their careers. Zwolińska-Gładys et al. (2024) found that professional experience can influence how university employees assess developmental competencies and emphasized that staff development should be responsive to prior experience and individualized training needs. Accordingly, a professional development program may be perceived as generally effective at the institutional level yet still require differentiated offerings to address the distinct needs of faculty at different career stages.

Table 1 portrays a respondent group that is nearly balanced by sex, institutionally diverse in academic affiliation, but predominantly composed of long-serving faculty members. The profile provides a useful foundation for interpreting the succeeding findings on professional development experiences and perceived program effectiveness. Nevertheless, the uneven representation across academic units and career stages suggests that university-wide conclusions should be drawn with caution. Rather than assuming that a single professional development model will respond equally well to all faculty members, the profile supports consideration of a differentiated professional development framework in which institution-wide programs are complemented by discipline-responsive and career-stage-specific opportunities. Such an approach is consistent with contemporary research on higher education staff development that emphasizes needs assessment, contextual relevance, and customization based on faculty experience and professional responsibilities (Al-Thani et al., 2023; Chon et al., 2025; Zwolińska-Gładys et al., 2024).

Table 2. Professional Development Activities Attended

Training area	Frequency	Percentage
Curriculum mapping and syllabus design	53	69.74
Pedagogy and instructional strategies	49	64.47
ICT and educational technology training	48	63.16
Research writing and publication	46	60.53
Community extension leadership	26	34.21
Mental health and student support	26	34.21

Table 2 shows the types of professional development activities attended by the 76 faculty respondents. The pattern indicates that participation was concentrated primarily in areas closely associated with the university's core academic functions of curriculum development, teaching, technology integration, and research, while comparatively fewer respondents reported participation in activities related to community extension leadership and student mental health support. Because respondents could have participated in more than one type of professional development activity, the percentages are appropriately interpreted independently rather than as mutually exclusive categories.

The most frequently attended professional development activity was curriculum mapping and syllabus design, reported by 53 faculty members or 69.74% of the respondents. This suggests that curriculum-related professional development has been a prominent component of the university's faculty development efforts. Such emphasis is institutionally important because curriculum mapping and syllabus development

provide mechanisms for aligning course content, learning outcomes, assessment, and program-level expectations. In higher education, professional learning becomes more meaningful when it is connected to faculty members' actual disciplinary and instructional responsibilities rather than delivered solely through generic training. Al-Thani et al. (2023), for example, emphasized the importance of contextualized and discipline-responsive professional learning in supporting changes in teaching practice. The relatively high participation in curriculum-related training therefore indicates that a substantial proportion of UDM faculty members have been exposed to activities intended to strengthen the coherence and organization of instructional delivery.

This was followed by pedagogy and instructional strategies, attended by 49 respondents or 64.47%. The result reflects considerable institutional attention to the teaching role of faculty members and suggests that professional development has extended beyond curriculum documentation to include instructional practice. Continuous pedagogical development remains important in higher education because disciplinary expertise does not automatically translate into expertise in teaching. Faculty members benefit from opportunities to examine instructional strategies, learner engagement, assessment practices, and approaches appropriate to changing student needs. Al-Thani et al. (2023) observed that professional learning in higher education can support faculty members in introducing new pedagogical approaches when institutional structures, contextual support, and opportunities for collaborative learning are available. The level of participation reported in the present study is therefore consistent with an institutional orientation toward strengthening teaching quality, although the table shows only participation and does not establish whether the training subsequently changed classroom practice or student outcomes.

Training in information and communication technology and educational technology was attended by 48 respondents or 63.16%, making it the third most common professional development area. This relatively high participation is particularly relevant in contemporary higher education, where faculty members are expected to integrate learning management systems, digital resources, communication platforms, online assessment tools, and emerging technologies into teaching. Liesa-Orús et al. (2023), in a meta-analysis involving 7,470 university lecturers from Europe and Latin America, found that although university teachers generally expressed positive perceptions of technology, their levels of digital competence remained uneven and continued to present institutional and training challenges. The substantial participation of UDM faculty members in ICT and educational technology training may therefore reflect the university's response to the increasing importance of digital competence in academic work. At the same time, attendance should not be equated with digital proficiency. A more comprehensive evaluation would examine whether faculty members can effectively apply technology to instructional design, assessment, student engagement, and discipline-specific learning rather than simply documenting participation in technology-related seminars or workshops.

Research writing and publication was attended by 46 respondents, or 60.53%, indicating that more than half of the faculty members had participated in professional development aimed at strengthening scholarly activity. This is an important dimension of faculty development because higher education faculty are expected not only to teach but also to contribute to knowledge production, research dissemination, and institutional research culture. In the Philippine context, Amanonce et al. (2025) found that research productivity among teacher educators varied according to professional characteristics, including participation in research-related seminars, and recommended targeted professional development and mentoring to strengthen faculty research output. The participation rate observed at UDM therefore suggests a meaningful institutional investment in research capacity. Nevertheless, participation in research writing and publication activities should ultimately be evaluated alongside tangible outcomes, such as completed research projects, conference presentations, externally funded studies, submitted manuscripts, publications, citations, research utilization, and collaborative research activities. Training attendance by itself provides evidence of exposure to professional development but not necessarily of improved research productivity.

In contrast, community extension leadership was attended by only 26 respondents or 34.21%. This represents a substantial decrease compared with participation in curriculum, pedagogy, technology, and research-related activities. The result may indicate that professional development opportunities in extension and community engagement have been offered less frequently, have reached fewer faculty members, or have been perceived as less immediately relevant to faculty responsibilities. However, the table does not provide information on the number of programs offered in each area, faculty eligibility, or individual choices; consequently, lower participation should not be automatically interpreted as lower faculty interest. From an institutional perspective, the finding nevertheless suggests an opportunity to strengthen professional development in community engagement, especially because extension constitutes an important dimension of the public-service mission of higher education institutions. Such development could include community needs assessment, partnership building, project planning, monitoring and evaluation, impact assessment, and translating disciplinary expertise into community-responsive initiatives.

An equally low level of participation was reported for mental health and student support training, with 26 respondents (34.21%). This comparatively limited exposure warrants attention because contemporary faculty roles increasingly involve recognizing student difficulties, responding appropriately to academic and psychosocial concerns, and, when necessary, directing students to specialized university services. Faculty members are not expected to function as mental health professionals, but appropriate training can strengthen their capacity to recognize signs of distress, communicate supportively, observe institutional protocols, and make timely referrals. Research on university gatekeeper training has shown that faculty members who receive relevant training tend to report greater confidence in identifying and assisting students at risk (Sylvara & Mandracchia, 2019). More recent higher education literature also emphasizes the value of institution-wide approaches in which faculty and staff complement rather than replace professional counseling and mental health services. The relatively low participation in this area therefore suggests that student-support competencies may warrant greater representation in future faculty development programming.

Table 2 indicates that the Universidad de Manila Professional Development Program has primarily emphasized academic and instructional capacity, with approximately six to seven out of every ten respondents reporting participation in curriculum mapping, pedagogy, educational technology, or research-related training. This pattern is consistent with the traditional teaching and research responsibilities of university faculty and demonstrates reasonably broad exposure to professional learning in these areas. At the same time, the substantially lower participation in community extension leadership, mental health, and student support suggests that the program's reach across the broader dimensions of faculty responsibility may be uneven.

The findings therefore support a more balanced and differentiated professional development portfolio rather than simply increasing the number of training activities. Core areas such as curriculum, pedagogy, digital competence, and research should continue to receive attention because they remain central to academic quality. However, greater opportunities may also be needed in extension leadership, student well-being, mentoring, academic advising, and other forms of institutional and community engagement. Professional development is likely to be more meaningful when it combines university-wide priorities with faculty members' disciplinary, career-stage, and role-specific needs (Al-Thani et al., 2023). Future program evaluation should consequently move beyond documenting attendance and examine whether participation leads to application, changes in professional practice, completed outputs, and measurable contributions to teaching, research, extension, and student support.

Perceived General Effectiveness of the Program

Table 3. Perceived Effectiveness of the Program

Statement	Mean	Verbal interpretation
The programs provide high-quality content that enhances professional competencies.	3.4	Strongly Agree
The learning outcomes are clearly defined and successfully achieved.	3.46	Strongly Agree
The programs use effective delivery methods such as workshops and webinars.	3.4	Strongly Agree
The skills acquired are immediately applicable to current academic responsibilities.	3.42	Strongly Agree
The programs contribute to the University's academic excellence.	3.3	Strongly Agree
Overall weighted mean	3.4	Strongly Agree

Table 3 presents the faculty respondents' assessment of the general effectiveness of the Universidad de Manila Professional Development Program. The overall weighted mean of 3.40, verbally interpreted as Strongly Agree, indicates that respondents generally held highly favorable perceptions of the program across the five dimensions assessed. All individual indicators likewise received a Strongly Agree interpretation, with mean scores ranging only from 3.30 to 3.46. The relatively narrow range of scores suggests a consistent pattern of positive assessment of program content, learning outcomes, delivery methods, the applicability of acquired skills, and the perceived contribution to the university. These findings are consistent with contemporary higher education literature showing that well-designed faculty development programs can strengthen professional knowledge, competencies, teaching practices, and faculty confidence when learning activities are responsive to academics' professional responsibilities (Adams et al., 2023; Cotta et al., 2024).

The highest-rated statement was "The learning outcomes are clearly defined and successfully achieved," with a mean of 3.46. This finding suggests that respondents perceived the professional development activities as having sufficiently explicit purposes and that the intended learning expectations were generally realized from their perspective. Clear learning outcomes are important because they provide direction for professional learning activities and enable participants to understand the competencies or practices, they are expected to develop. In their evaluation of a professional development program for university teachers, Adams et al. (2023) demonstrated that faculty development organized around a defined competency framework could positively support the development of student-centered teaching competencies. Similarly, Sánchez-Tarazaga et al. (2024), in a systematic review of university teaching development programs, emphasized the importance of purposeful program design, relevant content, and clearly defined learning outcomes for structuring effective professional learning experiences. Thus, the high rating for this indicator may reflect faculty appreciation for programs in which objectives and expected outcomes are clearly communicated.

The second-highest assessment was obtained by the statement "The skills acquired are immediately applicable to current academic responsibilities," with a mean of 3.42. This result is particularly important because perceived applicability indicates that respondents recognized a connection between professional development activities and their existing roles as university faculty members. Professional development becomes more meaningful when participants can transfer what they learn to teaching, assessment, curriculum development, research, or other academic responsibilities. Adams et al. (2023) found that professional development can positively influence university teachers' competencies when training is connected to authentic dimensions of academic practice. Recent systematic evidence also indicates that faculty development programs can improve teaching-related behaviors, professional competencies, leadership, and self-evaluation, although the strength of outcomes varies with program design and context

(Cotta et al., 2024). The present finding therefore suggests that UDM faculty members generally perceive the program as professionally relevant rather than detached from their immediate academic responsibilities.

The statements concerning high-quality content and effective delivery methods, including workshops and webinars, both obtained a mean of 3.40. These ratings indicate that respondents generally viewed both what was delivered and how it was delivered favorably. The combination of content quality and delivery modality is significant because faculty development effectiveness is influenced not merely by the availability of training but by whether learning experiences are appropriately structured, engaging, relevant, and responsive to participants' developmental needs. Sánchez-Tarazaga et al. (2024) found considerable variation in the structure, duration, and content of higher education professional development programs and emphasized the importance of intentional program design and sustained developmental support. Similarly, Cotta et al. (2024) found positive effects of faculty development across different contexts but noted the continuing need to evaluate the specific competencies developed following program participation. Accordingly, the favorable ratings for content and delivery suggest that the formats used by UDM were well received by participants, but attendance and satisfaction with workshops or webinars alone should not be interpreted as evidence that professional practices subsequently changed.

The comparatively lowest, although still highly favorable, assessment was given to the statement "The programs contribute to the University's academic excellence," with a mean of 3.30. This result is noteworthy because it differentiates perceptions of immediate individual-level benefits from perceptions of broader institutional-level contribution. Respondents rated the clarity of learning outcomes, the practical applicability of skills, the content, and the delivery somewhat more favorably than the contribution of professional development to institutional academic excellence. The difference is small and was not tested inferentially; therefore, it should not be described as statistically significant. Nevertheless, descriptively, the pattern may suggest that faculty members can more readily recognize the immediate value of professional development to their own competencies and responsibilities than its longer-term effects on university-wide academic outcomes.

This distinction is consistent with the faculty development literature. Evidence of favorable participant reactions, improved knowledge, or enhanced professional competencies is generally easier to document than downstream institutional outcomes such as improved educational quality, research productivity, student achievement, organizational performance, or institutional reputation. Sánchez-Tarazaga et al. (2024) noted that empirical evidence concerning the broader effectiveness of professional development policies in higher education remains comparatively limited. Similarly, Adams et al. (2023) emphasized methodological challenges in tracing participation in professional development to subsequent changes in university teaching practice. Although Cotta et al. (2024) found overall positive effects of faculty development programs, they also recommended more specific evaluation of the competencies and outcomes produced following implementation. Therefore, the mean of 3.30 should not be interpreted negatively; rather, it highlights the need for UDM to more explicitly demonstrate how faculty development activities connect to institutional performance indicators.

Overall, the findings in Table 3 indicate a strong positive perception of the Universidad de Manila Professional Development Program, particularly regarding the clarity of learning outcomes, the applicability of acquired skills, content quality, and delivery methods. The results provide evidence that faculty respondents generally value the professional development opportunities provided by the university. However, because the data represent self-reported perceptions obtained through a descriptive survey, the overall weighted mean of 3.40 should be interpreted as evidence of perceived effectiveness rather than objectively demonstrated program effectiveness. Favorable perceptions are an important component of program evaluation because participants are more likely to engage in professional learning, they consider relevant and useful, but stronger evaluation would require evidence beyond satisfaction and perception.

Future evaluation of the program may therefore adopt a more comprehensive framework that examines whether favorable faculty perceptions translate into changes in teaching practice, curriculum development,

use of educational technology, research productivity, extension engagement, career development, student learning, and other institutional outcomes. Pre-program and post-program assessments, documentation of faculty outputs, classroom or instructional evidence, follow-up surveys, and institutional performance indicators could complement the present perception-based results. Such an approach would allow Universidad de Manila to move from determining whether faculty members perceive the professional development program positively to establishing whether participation produces sustained improvements in professional practice and contributes demonstrably to institutional academic excellence (Adams et al., 2023; Cotta et al., 2024).

Assessment of Timeliness, Relevance, Accessibility, and Institutional Support

Table 4. Assessment of Timeliness, Relevance, Accessibility, and Institutional Support

Dimension	Indicator	Mean	Interpretation
Timeliness	Training sessions are scheduled at times that do not conflict with teaching load.	3.2	Agree
	Program frequency is sufficient to keep pace with educational trends.	3.11	Agree
	Session duration is appropriate to topic complexity.	3.25	Strongly Agree
	Development opportunities are offered promptly when new needs arise.	3.1	Agree
	Certificates and materials are released within a reasonable time after activities.	3.25	Strongly Agree
	Composite mean	3.18	Agree
Relevance	Program topics align with the respondent's field of specialization.	3.16	Agree
	Content addresses current pedagogical challenges in higher education.	3.21	Agree
	Training level is suited to the respondent's career stage.	3.0	Agree
	Modules reflect current technological developments.	3.14	Agree
	Programs support the achievement of Universidad de Manila's institutional goals.	3.2	Agree
	Composite mean	3.14	Agree
Accessibility	Announcements are distributed through multiple accessible channels.	3.08	Agree
	Registration for professional development activities is easy to complete.	3.1	Agree
	Learning materials and recordings are available for asynchronous review.	3.01	Agree
	Physical or virtual venues are comfortable and technically stable.	3.28	Strongly Agree
	There are no restrictive barriers to participation.	2.89	Agree
	Composite mean	3.07	Agree

Institutional support	The administration clearly encourages faculty participation.	3.07	Agree
	Financial subsidies or registration fee support are available.	2.95	Agree
	Faculty members are granted official time to attend development activities.	3.01	Agree
	The university provides necessary software or hardware to apply new skills.	2.87	Agree
	Completion of professional development is recognized in annual performance evaluation.	2.88	Agree
	Composite mean	2.96	Agree

Table 4 presents the faculty respondents' assessment of the Universidad de Manila Professional Development Program in terms of timeliness, relevance, accessibility, and institutional support. All four dimensions received an overall verbal interpretation of "Agree," although the composite means ranged from 2.96 to 3.18. Timeliness received the highest composite mean at 3.18, followed by relevance at 3.14, accessibility at 3.07, and institutional support at 2.96. Although these numerical differences were not subjected to inferential statistical testing and therefore should not be interpreted as statistically significant, the descriptive pattern suggests that respondents evaluated the organization and content of professional development somewhat more favorably than the institutional conditions that facilitate sustained participation and application. This distinction is important because effective faculty development depends not only on the quality of training itself but also on whether faculty members are provided with adequate time, resources, flexibility, recognition, and organizational support to participate meaningfully and transfer learning into professional practice (Bélisle et al., 2024; Smith & Wyness, 2024).

Timeliness

Among the four dimensions, timeliness obtained the highest composite mean of 3.18, interpreted as Agree. The highest-rated indicators within this dimension were the appropriateness of session duration in relation to topic complexity and the timely release of certificates and learning materials, both with a mean of 3.25 and interpreted as Strongly Agree. These results indicate that respondents generally viewed the duration and administrative completion of professional development activities positively. Appropriate session duration is particularly relevant because professional development must provide sufficient time for meaningful engagement without creating additional demands that compete excessively with existing academic responsibilities. Smith and Wyness (2024), in an international systematic review of professional development for university teachers, emphasized that effective professional learning should be realistic, flexible, and sufficiently responsive to academics' competing responsibilities.

The scheduling of training sessions in relation to teaching loads also received a favorable assessment, with a mean of 3.20, while the perceived sufficiency of program frequency obtained a mean of 3.11. The lowest-rated indicator within the timeliness dimension was the prompt provision of development opportunities when new professional needs arise, with a mean of 3.10. Although all three indicators remained within the Agree category, these results suggest opportunities to make professional development more responsive to emerging educational demands and faculty schedules.

This is especially relevant in a rapidly changing higher education environment where faculty members must respond to developments in educational technology, artificial intelligence, assessment practices, curriculum reform, research requirements, and changing student needs. Professional development offered only according to a predetermined annual calendar may not always adequately respond to emerging competency requirements. Contemporary reviews of university faculty development increasingly characterize effective professional learning as continuous and developmental rather than episodic, requiring institutions to respond flexibly to changing academic contexts (Bélisle et al., 2024; Smith &

Wyness, 2024). Thus, while the timeliness results are generally favorable, UDM may further strengthen the program by maintaining scheduled development activities and creating rapid-response or just-in-time learning opportunities when significant educational or technological needs emerge.

Relevance

The relevance dimension recorded a composite mean of 3.14, indicating that respondents generally considered the professional development activities pertinent to their academic responsibilities. The highest-rated indicator concerned whether the content addressed current pedagogical challenges in higher education, with a mean of 3.21, followed closely by the perceived contribution of professional development to Universidad de Manila's institutional goals at 3.20. These results suggest that respondents generally perceived alignment between the program and both contemporary teaching demands and broader university priorities.

The perceived alignment of training topics with respondents' fields of specialization obtained a mean of 3.16, while the extent to which modules reflected current technological developments received a mean of 3.14. These findings are significant because faculty development tends to be more meaningful when it is connected to participants' academic disciplines, professional responsibilities, and actual teaching contexts. Bélisle et al. (2024), in a scoping review of 98 scholarly documents on the educational development of university teachers, emphasized that professional learning is highly contextual and shaped by disciplinary affiliation, experience, professional status, and institutional conditions. Consequently, professional development is unlikely to yield uniform benefits when all faculty members engage in identical activities without regard to disciplinary or professional differences.

The lowest-rated relevance indicator was whether the level of training was suited to the respondent's career stage, which obtained a mean of 3.00. Although still interpreted as Agree, this result warrants particular consideration given the respondent profile reported in Table 1, in which approximately three-quarters of the sample had at least 16 years of service. Experienced faculty members may require professional development that differs substantially from the needs of newly appointed or early-career academics. Senior faculty may benefit more from advanced research leadership, mentoring, academic governance, curriculum leadership, international collaboration, or specialized technological applications, whereas newer faculty may require stronger orientation to teaching, assessment, research processes, institutional policies, and career development.

The result therefore supports moving from a predominantly uniform professional development model toward differentiated learning pathways based on career stage, disciplinary context, existing competency, and professional role. Such differentiation is consistent with recent scholarship emphasizing that educational development should accommodate diverse faculty learning trajectories rather than presuming that academic staff begin from comparable levels of experience or require identical forms of support (Bélisle et al., 2024).

Accessibility

Faculty respondents also assessed the program positively in terms of accessibility, although its composite mean of 3.07 was lower than those obtained for timeliness and relevance. The strongest indicator concerned the suitability of physical or virtual venues, which received a mean of 3.28 and was interpreted as Strongly Agree. This suggests that respondents generally considered the environments in which activities were conducted comfortable and technically stable, an important condition for effective participation in both face-to-face and digitally mediated professional learning.

Registration procedures were also assessed favorably, with a mean of 3.10, while the use of multiple channels for disseminating announcements obtained a mean of 3.08. However, the availability of learning materials and recordings for asynchronous review received a relatively lower mean of 3.01. Providing asynchronous access can be particularly valuable for university faculty whose teaching, administrative, research, and extension responsibilities may prevent synchronous participation or may require them to

revisit complex training content after an activity. Flexible and blended professional development arrangements can help accommodate the diverse working conditions of faculty members and increase opportunities for sustained engagement (Smith & Wyness, 2024).

The lowest-rated indicator under accessibility was the statement that there are no restrictive barriers to participation, which obtained a mean of 2.89. Although this remains within the study's Agree category, it is among the lowest item means in the table. This suggests that some faculty members may continue to encounter barriers even when announcements, registration procedures, and venues are generally accessible. The present table does not identify the nature of these barriers; therefore, they should not be assumed to involve any specific cause without additional evidence. Possible issues for future investigation could include schedule conflicts, teaching assignments, administrative workloads, financial costs, eligibility requirements, technology access, or differences in the availability of development opportunities across colleges.

This interpretation is supported by recent evidence from the Philippines. Dio (2025), in a training-needs analysis involving graduate school faculty, identified workload, job responsibilities, cost, and time requirements as factors hindering participation in professional development, while relevant topics and convenient schedules were important motivators. The similarity between these concerns and the relatively low accessibility ratings in the present study suggests that UDM may benefit from examining the specific barriers to faculty participation, rather than assuming that providing training opportunities necessarily guarantees equitable access.

Institutional Support

Among the four dimensions, institutional support received the lowest composite mean, 2.96, although it was verbally interpreted as Agree. This finding is particularly important because professional development does not occur independently of organizational conditions. Faculty members may perceive training content as relevant and well delivered yet still encounter difficulty translating professional learning into sustained practice when institutional support is limited. Bélisle et al. (2024) emphasized that institutional conditions and available resources play a critical role in faculty educational development, while Smith and Wyness (2024) identified workload allocation, institutional recognition, flexibility, and organizational support as important conditions for effective university professional development.

The administration's encouragement of faculty participation received the highest mean within this dimension at 3.07, indicating that respondents generally perceived supportive institutional messaging regarding professional development. The granting of official time to attend activities obtained a mean of 3.01, while financial subsidies or registration support received a mean of 2.95. These results suggest that encouragement is present, but the material- and workload-related mechanisms that enable faculty members to participate may be perceived as comparatively less strong.

The two lowest indicators concerned whether completion of professional development is recognized in annual performance evaluation, with a mean of 2.88, and whether the university provides the necessary software or hardware to apply newly acquired skills, with a mean of 2.87. These results reveal an important distinction between providing access to learning and creating the institutional environment required for its application. Professional development may have limited practical value if faculty members acquire new competencies but lack the appropriate technological resources, organizational incentives, workload arrangements, or recognition mechanisms to apply them.

Smith and Wyness (2024) noted that university teachers may deprioritize professional development when institutional reward and career progression systems emphasize other responsibilities, such as research productivity, and fail to recognize engagement in professional learning. Their review further indicates that allocating workload, providing institutional support, and creating flexible opportunities are important conditions for sustained engagement. Consequently, the UDM findings suggest that strengthening faculty

development may require not merely offering more training but also ensuring that participation is institutionally enabled and professionally recognized.

The relatively low score for hardware and software provision is also relevant because earlier findings in Table 2 showed that 63.16% of respondents had participated in ICT and educational technology training. Training faculty members in educational technologies without ensuring access to the necessary software, hardware, licenses, connectivity, or technical assistance may limit the transfer of learning into actual teaching practice. Thus, professional development planning should ideally coordinate training provision with institutional resource planning so that newly acquired competencies can be implemented.

The findings in Table 4 reveal a generally favorable assessment of the Universidad de Manila Professional Development Program, but they also demonstrate that faculty perceptions are not equally strong across all dimensions of program implementation. The comparatively higher composite means for timeliness (3.18) and relevance (3.14) indicate that respondents generally considered the activities appropriately organized and relevant to their professional responsibilities. Accessibility (3.07) was also evaluated positively but showed possible areas for improvement concerning asynchronous resources and barriers to participation. The lowest composite mean for institutional support (2.96) suggests that the most important opportunities for program enhancement may lie not primarily in changing training content but in strengthening the organizational conditions surrounding participation and application.

This pattern is consistent with recent higher education literature emphasizing that successful professional development requires an interaction between individual learning opportunities and an enabling institutional environment. Faculty development is influenced by disciplinary context, experience, workload, organizational culture, resources, flexibility, and recognition; therefore, the provision of seminars and workshops alone is unlikely to produce sustained professional change (Bélisle et al., 2024; Smith & Wyness, 2024). Philippine evidence similarly suggests that faculty participation can be constrained by workload, time, cost, and limited institutional support even when academics recognize the value of continuous professional learning (Dio, 2025).

Accordingly, the findings support a shift toward a more integrated faculty development system at Universidad de Manila. Such a system could combine relevant and timely professional development content with career-stage differentiation, discipline-responsive activities, asynchronous access to learning resources, protected participation time, financial support where feasible, appropriate technological resources, and formal recognition of professional development within performance and career-development processes. Importantly, these recommendations stem from descriptive differences in respondents' perceptions and should be investigated further through follow-up surveys, qualitative interviews, or focus group discussions to identify the specific institutional barriers faculty members experience.

Challenges Encountered in Professional Development Participation

Table 5. Challenges Encountered in Professional Development Participation

Type	Challenge	Mean	Interpretation
Personal	Insufficient personal budget for advanced professional training.	2.91	Agree
	Family or personal commitments make after-hours or weekend sessions difficult.	2.82	Agree
	Difficulty balancing teaching duties and time for professional growth.	2.78	Agree
	Limited personal equipment such as reliable internet or an updated laptop.	2.83	Agree
	Limited motivation or interest in some topics currently offered.	2.53	Agree

Institutional	Composite mean	2.77	Agree
	Limited university budget for subsidies, registration fees, and travel grants.	3.04	Agree
	High teaching loads and administrative assignments limit time for training.	3.08	Agree
	Processes for requesting financial assistance or reimbursement are too complicated.	3.3	Agree
	Communication regarding upcoming opportunities is insufficient or delayed.	3.09	Agree
	Program offerings are not sufficiently diversified by field or academic rank.	2.95	Agree
	Composite mean	3.09	Agree

Table 5 presents the personal and institutional challenges encountered by faculty members in participating in professional development activities. Both categories received an overall verbal interpretation of *Agree*, indicating that respondents recognized barriers at both the individual and organizational levels. However, the institutional challenges obtained a higher composite mean of 3.09 compared with 2.77 for personal challenges. Although the difference was not subjected to inferential statistical testing and should therefore not be described as statistically significant, the descriptive pattern suggests that respondents perceived institutional conditions as more substantial constraints on participation in professional development than personal circumstances. This distinction is important because contemporary faculty development literature increasingly recognizes that participation is shaped not only by individual motivation but also by workload, institutional resources, organizational procedures, relevance of opportunities, and the extent to which universities formally support professional learning (Bélisle et al., 2024; Dio, 2025; Smith & Wyness, 2025).

Personal Challenges

The personal challenges obtained a composite mean of 2.77, interpreted as *Agree*. Among these challenges, insufficient personal budget for advanced professional training received the highest mean of 2.91. This result indicates that respondents perceived the financial cost of professional development as a meaningful barrier, particularly when participation requires registration fees, certification costs, transportation, accommodation, technology, or other expenses that may not be fully covered by the institution. This finding is consistent with recent evidence from the Philippines. Dio (2025), in a training-needs assessment of higher education faculty in the Visayas, identified the cost of training and limited institutional support as major factors hindering participation in professional development. The similarity between the findings suggests that financial accessibility remains an important consideration in designing sustainable faculty development programs within Philippine higher education institutions.

Limited access to personal equipment, reliable internet connectivity, or an updated laptop was the second-highest personal challenge, with a mean of 2.83. This finding is especially relevant because earlier results showed substantial faculty participation in ICT and educational technology training. Professional development involving digital pedagogy, online research resources, learning management systems, artificial intelligence, data analysis applications, or specialized software assumes that participants possess the technological resources necessary to apply newly acquired competencies. When personal access to hardware or connectivity is uneven, faculty members may benefit from training yet still face difficulties applying that learning in professional practice. Bélisle et al. (2024) emphasize that faculty professional development occurs within particular institutional and material contexts and that available resources can either support or constrain individual learning trajectories. Thus, access to technology should be considered part of the enabling environment for faculty development rather than solely an individual responsibility.

Family or personal commitments received a mean of 2.82, while difficulty balancing teaching duties with time for professional growth obtained a mean of 2.78. These results indicate that the time available for

development is affected by responsibilities that extend beyond the formal training activity itself. Faculty members often serve in multiple roles, including teaching, preparation, assessment, research, extension, administrative work, and personal or family responsibilities. Professional development offered outside regular working hours or during weekends may therefore increase access for some faculty members while creating additional barriers for others. Smith and Wyness (2025), in an international review of professional development for university teachers, found that professional learning is more likely to be valued and attended when it is flexible, realistically structured, relevant, and compatible with academics' existing responsibilities. The findings suggest that scheduling professional development outside teaching hours should not automatically be considered the most accessible arrangement; faculty workload and personal responsibilities should also be taken into account when determining program schedules.

The lowest-rated personal challenge was limited motivation or interest in some topics currently offered, with a mean of 2.53. Although still classified as *Agree* under the study's interpretation scheme, this was the least strongly perceived challenge in Table 5. The comparatively low rating is important because it suggests that a lack of motivation may not be the principal reason faculty members have difficulty participating in professional development. Rather, the results indicate that structural concerns involving financial resources, time, technology, and competing responsibilities may be more salient. Nevertheless, the finding also suggests that not all professional development topics are equally relevant to every faculty member. Smith and Wyness (2025) identified relevance to participants' professional contexts as an important factor affecting faculty engagement with professional learning. Accordingly, needs assessment and differentiated programming may help increase participation by ensuring that activities correspond to faculty members' disciplinary fields, career stages, responsibilities, and existing levels of competence.

Taken together, the personal challenge results suggest that barriers attributed to the individual are themselves partly shaped by the surrounding professional environment. Financial limitations may reflect the availability of institutional subsidies; time constraints may be affected by workload and scheduling; technology limitations may be reduced through university-provided infrastructure; and motivation may be influenced by the perceived relevance of program offerings. Thus, personal and institutional barriers should not be treated as completely independent categories.

Institutional Challenges

Institutional barriers received the highest composite mean, 3.09, indicating that respondents generally perceived organizational conditions as important constraints on participation in professional development. The highest-rated challenge in the entire table was the statement that processes for requesting financial assistance or reimbursement are too complicated, which obtained a mean of 3.30. This result is particularly significant because it suggests that access to professional development may be influenced not only by whether funding exists but also by the administrative accessibility of that funding.

Complex procedures may reduce the practical usefulness of institutional support if faculty members must navigate lengthy approval processes, multiple documentary requirements, uncertain reimbursement arrangements, or extended processing periods before accessing assistance. The finding therefore points to a distinction between the formal availability of support and the actual usability of support mechanisms. Faculty development systems may become more accessible when procedures are transparent, requirements are clearly communicated, approval timelines are predictable, and faculty members can readily determine which forms of assistance are available to them. The result complements the earlier finding in Table 4 that financial subsidies and registration support received a relatively modest rating, suggesting that the financial dimension of professional development may require attention at both the resource and procedural levels.

The second-highest institutional challenge was insufficient or delayed communication regarding upcoming professional development opportunities, with a mean of 3.09. Effective communication is essential because even well-designed professional development activities cannot achieve broad participation when faculty members receive information too late to adjust their schedules, secure approval, prepare requirements, or apply for financial assistance. Timely dissemination is particularly important for conferences, certification

programs, international activities, externally funded opportunities, and specialized training with fixed application deadlines. The result suggests that UDM may benefit from a centralized and predictable professional development communication system rather than relying primarily on individual announcements distributed close to activity dates.

Closely following this was the challenge of high teaching loads and administrative assignments that limited time for training, which had a mean of 3.08. This finding reinforces the interpretation that participation in professional development is partly a workload issue rather than exclusively an individual time-management concern. The result is also consistent with the Philippine findings of Dio (2025), where workload and job responsibilities were identified as major impediments to faculty participation in development activities. International scholarships similarly emphasize that educational development is strongly shaped by institutional conditions and that professional learning opportunities must accommodate the different responsibilities and trajectories of university teachers (Bélisle et al., 2024).

The result also has important implications for institutional policy. Encouraging faculty members to undertake continuous professional development while maintaining full teaching, research, extension, committee, and administrative responsibilities may create competing demands. Professional development becomes more feasible when institutions treat it as part of academic work rather than as an additional activity that faculty members must complete outside their regular responsibilities. Smith and Wyness (2025) emphasize that professional development needs to be realistic and flexible for university teachers to attend, reinforcing the importance of considering workload allocation when planning faculty development.

The perception that the university has a limited budget for subsidies, registration fees, and travel grants obtained a mean of 3.04. This finding aligns with the highest-rated personal barrier, insufficient personal funds, and further demonstrates the interconnected nature of personal and institutional financial constraints. When university support is limited, the financial responsibility for continuing professional development may shift toward individual faculty members. This arrangement can create unequal access because participation may depend in part on an individual's ability to cover registration fees, travel, technology, certification, or other professional expenses. Dio (2025) similarly identified limited support and training costs as barriers among Philippine higher education faculty. These findings support consideration of transparent and equitable professional development funding mechanisms, particularly for activities closely aligned with university priorities.

The lowest-rated institutional challenge was the perception that program offerings are insufficiently diversified by field or academic rank, with a mean of 2.95. Although this was the lowest institutional challenge, it remained within the *Agree* category and is consistent with the earlier Table 4 result in which respondents gave a comparatively lower rating to the suitability of professional development for their career stage. The recurrence of this issue across separate dimensions strengthens the descriptive indication that faculty members may perceive a need for greater differentiation in program offerings.

Bélisle et al. (2024), based on a review of 98 scholarly documents concerning the educational development of university teachers, concluded that professional learning trajectories are influenced by factors such as disciplinary affiliation, professional experience, academic status, and institutional context. Faculty development programs should therefore provide common institutional learning opportunities while also recognizing that an early-career faculty member, an experienced professor, a researcher, a program chair, and a faculty member from a specialized professional discipline may require different forms and levels of development.

An important interpretation emerging from Table 5 is that the separation between personal and institutional challenges is conceptually useful but not absolute. Several personal difficulties may be influenced directly by institutional arrangements. For example, insufficient personal funds may become less restrictive when adequate subsidies are available; difficulty balancing professional development with teaching can be reduced through workload adjustments or protected development time; limited personal technology can be mitigated through institutional equipment and software provision; and faculty motivation may improve when professional development activities are more closely aligned with disciplinary and career needs.

The higher composite mean for institutional challenges (3.09) than for personal challenges (2.77) suggests that improvements in professional development participation may require organizational-level intervention rather than relying predominantly on faculty members to overcome barriers individually. This interpretation is consistent with Bélisle et al. (2024), who argue that professional development is embedded within an institutional context and that resources and organizational conditions should accommodate diverse faculty learning trajectories. It is also consistent with Smith and Wyness (2025), whose international review found that effective professional development depends on factors including relevance, flexibility, structure, realistic participation requirements, and institutional context.

The results have direct implications for the Universidad de Manila Professional Development Program. The strongest barriers do not appear to concern unwillingness to learn. Instead, respondents identified administrative procedures, communication, workload, financial support, scheduling, and access to resources as important constraints. This pattern suggests that increasing the number of seminars and workshops alone may not substantially increase participation in professional development if the conditions surrounding participation remain unchanged.

A more responsive institutional strategy may therefore include simplifying procedures for financial assistance and reimbursement; establishing clear and predictable processing timelines; developing a centralized professional development calendar or information portal; providing announcements sufficiently in advance; considering professional development when allocating faculty workload; expanding financial subsidies according to transparent criteria; offering asynchronous or flexible participation options; providing institutional hardware, software, and connectivity where required; and developing professional learning pathways differentiated according to discipline, academic responsibility, career stage, and prior competence.

Table 5 demonstrates that the challenges associated with participation in professional development are multidimensional and interconnected, but the descriptive results place particular emphasis on institutional barriers. This finding complements Table 4, where institutional support received the lowest composite assessment across timeliness, relevance, and accessibility. Taken together, the two tables suggest a consistent pattern: faculty respondents generally perceive the professional development activities themselves positively, but the institutional mechanisms that enable participation, financing, access, and application appear comparatively less favorable. Consequently, future enhancements to the UDM Professional Development Program should address not only the content and delivery of professional learning but also the organizational environment in which faculty members are expected to participate and apply what they have learned.

Perceived Contribution to Faculty Functions

Table 6. Perceived Contribution to Faculty Functions

Faculty function	Indicator	Mean	Interpretation
Teaching effectiveness	Adoption of more student-centered teaching strategies.	3.14	Agree
	Improved ability to integrate digital tools into lessons.	3.11	Agree
	Improved ability to design diverse and effective assessments.	3.07	Agree
	Improved classroom management and student engagement skills.	3.19	Agree
	Improved ability to address diverse learning needs.	3.13	Agree
	Composite mean	3.13	Agree

Research engagement	Improved understanding of data analysis and research design.	3.05	Agree
	Greater motivation to publish in peer-reviewed journals.	2.84	Agree
	Improved ability to write research grant proposals.	3.08	Agree
	Updated knowledge of research ethics and citation management.	3.04	Agree
	Greater confidence in presenting research at academic conferences.	2.86	Agree
	Composite mean	2.97	Agree
Professional growth and career progression	Programs provide points or credentials for rank promotion.	2.79	Agree
	Improved leadership skills for additional responsibilities.	2.96	Agree
	Improved professional identity and job satisfaction.	2.99	Agree
	Stronger professional networks.	3.04	Agree
	Greater perceived competence relative to peers in other institutions.	2.92	Agree
	Composite mean	2.94	Agree
Extension or expert service	Improved ability to design community outreach projects.	2.97	Agree
	More frequent invitations as consultant or resource speaker.	2.72	Agree
	Improved ability to translate research into community solutions.	3.03	Agree
	More effective representation of the university in external professional organizations.	3.05	Agree
	Improved ability to provide technical advice to external stakeholders.	3.0	Agree
	Composite mean	2.95	Agree

Table 6 presents the respondents' assessment of the Universidad de Manila Professional Development Program's contribution to four major faculty functions: teaching effectiveness, research engagement, professional growth and career progression, and extension or expert service. All four dimensions received an overall interpretation of Agree, with composite means ranging from 2.94 to 3.13. Teaching effectiveness obtained the highest composite mean at 3.13, followed by research engagement at 2.97, extension or expert service at 2.95, and professional growth and career progression at 2.94. Although the numerical differences were not subjected to inferential statistical testing and should therefore not be interpreted as statistically significant, the descriptive pattern suggests that respondents perceived the most immediate contribution of professional development in relation to their teaching responsibilities, while benefits related to research, career advancement, and external service were perceived somewhat less strongly.

This pattern is consistent with the nature of university professional development, which often produces its most visible short-term effects in areas that faculty members can directly apply to their day-to-day academic practice. Smith and Wyness (2025), in an international review of professional development for university teachers, found that professional learning is particularly valued when it is relevant, meaningful, flexible, and transferable from theory to teaching practice. Bélisle et al. (2024) similarly emphasized that educational

development among university teachers is influenced by professional experience, disciplinary context, institutional resources, and opportunities to apply new learning. The findings in Table 6 therefore suggest that UDM faculty members recognize benefits across multiple dimensions of their work, although the strength and immediacy of those perceived benefits vary according to faculty function.

Teaching Effectiveness

Among the four faculty functions, teaching effectiveness received the highest composite mean of 3.13, interpreted as Agree. The highest-rated teaching indicator was the perceived improvement in classroom management and student engagement skills, with a mean of 3.19. This was followed by the ability to adopt more student-centered teaching strategies at 3.14, address diverse learning needs at 3.13, integrate digital tools into lessons at 3.11, and design diverse and effective assessments at 3.07.

The pattern indicates that respondents primarily associate the professional development program with improvements in the practical dimensions of teaching. The relatively high ratings of classroom management and student engagement suggest that faculty members recognize that professional development is useful in helping them respond more effectively to students during the teaching-learning process. Similarly, the rating for student-centered teaching indicates that respondents perceive the program as contributing to approaches that move beyond content transmission toward greater learner participation and engagement.

These results are consistent with recent scholarship emphasizing that professional development for university teachers is most useful when it facilitates the transfer of learning into actual pedagogical practice. Smith and Wyness (2025) concluded that effective professional development should be meaningful, relatable to participants' academic contexts, and structured to support movement from professional learning into practice. Bélisle et al. (2024) likewise found that the educational development of university faculty is closely connected to changes in teaching practices, professional identity, and institutional context.

The ratings for technology integration and assessment are also important. Faculty members increasingly operate in learning environments where digital platforms, artificial intelligence, online resources, learning management systems, and technology-supported assessment have become integral components of higher education. However, the mean of 3.07 for improved assessment design, the lowest among the five teaching indicators, may suggest that assessment literacy warrants additional attention within the professional development program. Effective assessment requires more than familiarity with assessment tools; it involves aligning assessment tasks with intended learning outcomes, designing valid and equitable measures of learning, providing useful feedback, and adapting assessment to changing educational environments.

The teaching results indicate that professional development is perceived as contributing positively to instructional practice, learner engagement, technological integration, assessment, and responsiveness to learner diversity. Because these measures are based on faculty perception, however, they should not be interpreted as direct evidence of improved teaching performance or student achievement. Future program evaluation could strengthen these findings by incorporating classroom observations, peer evaluations, teaching portfolios, evidence of course redesign, student feedback, and assessment artifacts.

Research Engagement

The second-highest composite mean was recorded for research engagement, at 2.97, which is also interpreted as Agree. The strongest research-related indicator was the perceived improvement in the ability to write research grant proposals, with a mean of 3.08, followed by improved understanding of data analysis and research design at 3.05 and updated knowledge of research ethics and citation management at 3.04. These results suggest that faculty members perceive professional development as contributing to several technical dimensions of research competence.

This is particularly relevant to the broader development of institutional research culture. Recent Philippine evidence indicates that faculty research productivity depends not on motivation or training alone, but on the

interaction among capability, research engagement, and institutional opportunity. Tamayo (2026), in a study involving faculty members from Philippine state universities and colleges, found that faculty capability was positively associated with research engagement and productivity and that mentoring, equitable access to resources, and supportive institutional conditions were important components of a productive research environment. The UDM findings similarly suggest that professional development can contribute to building research capability, but translating those competencies into scholarly outputs requires supportive institutional conditions.

Comparatively lower ratings were observed for confidence in presenting research at academic conferences (mean 2.86) and motivation to publish in peer-reviewed journals (mean 2.84). These results are noteworthy because they suggest that faculty respondents perceive greater benefits from acquiring specific research skills than from the later stages of research dissemination. Understanding research design or grant writing does not automatically translate into completing manuscripts, submitting papers, presenting at conferences, or sustaining scholarly productivity.

This distinction is supported by Heaton-Shrestha et al. (2023), whose systematic review of interventions designed to enhance research productivity among higher education academics found that institutions employ a wide range of strategies, including mentoring, research capacity building, protected research opportunities, collaboration, and research infrastructure. Their review also demonstrated that research productivity itself should be assessed through concrete outputs rather than assumed from participation in training. Accordingly, the UDM Professional Development Program may benefit from extending research training beyond introductory methodology and writing workshops toward a research-to-publication pathway that includes sustained mentoring, manuscript clinics, peer review, conference preparation, grant development, and assistance with journal selection and submission.

The relatively low publication motivation score should also be interpreted in light of the institutional barriers identified in Tables 4 and 5. Faculty members reported concerns regarding workload, financial support, administrative procedures, technological resources, and recognition. These conditions may influence whether knowledge and skills acquired through professional development are converted into actual research products. Thus, strengthening research engagement may require both capability development and an enabling institutional research environment.

Professional Growth and Career Progression

Professional growth and career progression had a composite mean of 2.94, the lowest among the four faculty functions, yet it remained within the Agree category. The highest-rated indicator within this dimension was the development of stronger professional networks, with a mean of 3.04, followed by improved professional identity and job satisfaction at 2.99, improved leadership skills at 2.96, and greater perceived competence relative to peers in other institutions at 2.92.

The relatively favorable assessment of professional networking suggests that faculty development activities may provide value beyond formal learning by creating opportunities for interaction, knowledge exchange, collaboration, and relationship building. Smith and Wyness (2025) emphasize that collegial interaction and professional communities are valued features of university professional development because they create opportunities for meaningful pedagogical dialogue and collaborative learning. Such networks can also facilitate research collaboration, mentoring, interdisciplinary initiatives, and access to professional opportunities.

The lowest-rated indicator was whether professional development programs provide points or credentials for rank promotion, with a mean of 2.79. This finding complements earlier results showing comparatively modest perceptions of whether professional development is formally recognized in annual performance evaluation. Taken together, the results indicate a possible disconnect between participation in professional learning and formal career-reward mechanisms.

This issue has practical implications for faculty engagement. Professional development may be perceived as beneficial for personal competence but less clearly connected to promotion, recognition, advancement, or formal institutional rewards. Bélisle et al. (2024) emphasized that educational development is influenced by institutional structures and professional trajectories, while Smith and Wyness (2025) noted that engagement in professional development can be affected by whether institutions recognize and value such participation within broader academic expectations.

Accordingly, UDM may consider reviewing how professional development is incorporated into faculty performance management and career development. This does not necessarily mean awarding promotion solely on the basis of seminar attendance. Rather, the institution could recognize demonstrated application and outcomes of professional development, such as curriculum innovation, improved teaching practice, mentoring, research output, leadership contributions, certifications, or the successful implementation of new academic initiatives.

Extension or Expert Service

The perceived contribution of professional development to extension or expert service obtained a composite mean of 2.95, interpreted as Agree. The highest-rated indicator was the perceived improvement in representing the university in external professional organizations, with a mean of 3.05, followed by the improved ability to translate research into community solutions at 3.03, to provide technical advice to external stakeholders at 3.00, and to design community outreach projects at 2.97.

These findings indicate that respondents generally perceive professional development as contributing to their capacity to engage beyond the university. This function is particularly important for a public higher education institution because faculty expertise can support communities, professional organizations, government agencies, civil society groups, schools, and other stakeholders through evidence-based extension and technical assistance.

Recent Philippine literature reinforces the importance of strengthening faculty capacity for extension. Angco (2026), in a meta-synthesis of Philippine higher education extension programs, found that effective extension initiatives contribute to community skill development, economic empowerment, social inclusion, sustainability, and leadership, while strengthening reciprocal relationships between higher education institutions and communities. These findings suggest that faculty development for extension should move beyond organizing outreach events toward developing competencies in community needs assessment, participatory program design, research translation, monitoring and evaluation, sustainability planning, and impact assessment.

The lowest item within this dimension was more frequent invitations as a consultant or resource speaker, with a mean of 2.72. This result is understandable because invitations from external organizations depend on factors that extend beyond participation in faculty development. External recognition may be influenced by professional reputation, expertise, networks, publications, prior engagements, institutional visibility, and demand for a particular specialization. Consequently, this indicator may represent a more distal outcome of professional development than competencies such as project design or technical advising.

The result should therefore not be interpreted as evidence that the professional development program is ineffective in developing faculty expertise. Rather, it suggests that external recognition and professional invitations may require longer-term accumulation of expertise, networks, scholarly outputs, and visibility. If UDM intends professional development to contribute to expert service, the university could complement internal training with faculty expertise directories, external partnership-building, participation in professional associations, public scholarship, policy engagement, and mechanisms to connect qualified faculty members with external stakeholders.

Table 6 demonstrates that faculty respondents generally perceive the Universidad de Manila Professional Development Program as making a positive contribution across the university's major faculty functions. However, the pattern suggests that the perceived benefits are strongest and most immediate in teaching,

while contributions to research dissemination, formal career advancement, and external professional recognition appear comparatively less pronounced.

The composite means follow a relatively narrow descriptive range: teaching effectiveness at 3.13, research engagement at 2.97, extension or expert service at 2.95, and professional growth and career progression at 2.94. These differences should not be described as statistically significant because no inferential comparison was made. Nevertheless, the pattern is analytically useful because it suggests that the program may currently be more effective at supporting proximal professional outcomes, such as improving teaching approaches or research-related knowledge, than distal outcomes, such as publication, promotion, consultancy, or broader external recognition.

This distinction is consistent with contemporary professional development scholarship. Professional learning may initially influence knowledge, confidence, skills, and professional practice, while broader outcomes depend on continuing institutional support and opportunities for faculty to apply their competencies (Bélisle et al., 2024; Smith & Wyness, 2025). Research productivity, for example, is shaped not merely by methodological competence but also by mentoring, resources, opportunity, research engagement, and institutional conditions (Heaton-Shrestha et al., 2023; Tamayo, 2026). Likewise, effective extension requires mechanisms that translate faculty expertise into meaningful and sustainable community engagement (Angco, 2026).

The findings therefore support a shift from viewing professional development primarily as a collection of training activities toward a faculty development pathway linked to the full range of academic functions. For teaching, this could include instructional innovation, assessment redesign, peer observation, and evidence of student engagement. For research, development could progress from methodology training to project implementation, grant writing, manuscript preparation, conference presentations, publication, and research utilization. For professional growth, training could be linked with mentoring, leadership opportunities, professional networks, credentials, and documented career development. For extension, professional development could include community needs assessment, research translation, project management, monitoring and evaluation, stakeholder engagement, and technical consultancy.

Table 6 provides evidence of perceived contribution rather than objectively demonstrated improvement. Future evaluation should therefore triangulate these faculty perceptions with measurable professional outcomes, including changes in teaching practice, completed research and publications, grants secured, promotion or leadership progression, extension projects implemented, external partnerships, consultancy engagements, and community outcomes. Such an approach would provide a stronger basis for determining how the Universidad de Manila Professional Development Program contributes not only to individual faculty learning but also to institutional performance across teaching, research, professional development, and public service.

Recommendations for Strengthening the Universidad de Manila Professional Development Program at the Individual and Institutional Levels

The study's findings provide a basis for strengthening the Universidad de Manila Professional Development Program through a combination of individual faculty development strategies and institutional support mechanisms. The results suggest that faculty members generally perceive the program as relevant and effective, particularly in supporting teaching-related competencies. However, the comparatively lower assessments of institutional support, research engagement, professional growth and career progression, and extension or expert service indicate that professional development should extend beyond training activities to a more integrated system that supports participation, application, recognition, and measurable professional outcomes.

At the individual level, faculty members may benefit from developing personalized professional development plans that align with their current competencies, disciplinary responsibilities, career stage, and intended professional trajectory. The respondent profile indicates considerable variation in length of

service, with a substantial proportion of participants belonging to the more experienced segment of the faculty. At the same time, the findings on program relevance showed that the suitability of training according to career stage received a comparatively lower assessment. These results suggest that faculty members should not necessarily follow identical development pathways. Bélisle et al. (2024) emphasized that the educational development of university teachers is influenced by disciplinary affiliation, professional experience, academic status, and institutional context, indicating the need for development opportunities that accommodate diverse professional trajectories. Individual development planning could therefore enable faculty members to identify priority competencies in teaching, research, leadership, technology, extension, or student support, and to select professional development activities that more directly address these needs.

Faculty members should likewise be encouraged to move from participation in training to the deliberate application of acquired competencies. The study found that teaching effectiveness received the highest perceived contribution among the four faculty functions, particularly in classroom management, student engagement, student-centered instruction, and technology integration. These strengths could be reinforced by encouraging faculty members to document how professional development translates into changes in classroom practice. Faculty teaching portfolios, redesigned syllabi, revised assessment strategies, technology-integrated learning activities, reflective teaching reports, peer observations, or evidence of instructional innovation could serve as tangible demonstrations of professional learning. Smith and Wyness (2025) emphasized that university professional development becomes more meaningful when it is relevant to academic work and facilitates the transfer of learning from professional development activities into practice.

Individual faculty development should also place greater emphasis on research completion and dissemination. Although respondents generally perceived professional development as contributing to research engagement, they reported lower ratings for motivation to publish in peer-reviewed journals and confidence in presenting at academic conferences. This pattern suggests that faculty members may require additional support in progressing from knowledge of research methodology to the completion and dissemination of scholarly work. Faculty members could therefore be encouraged to participate in research mentoring arrangements, writing groups, peer-review circles, manuscript development sessions, conference preparation activities, and collaborative research teams. Systematic research on mentoring in higher education indicates that effective mentoring can provide personalized professional learning and competence development when mentoring relationships are deliberately structured and supported (Nuis et al., 2023).

The development of research capability should also recognize that research productivity is rarely achieved through isolated workshops. Heaton-Shrestha et al. (2023), in a systematic review of interventions aimed at improving academic research productivity, identified mentoring, writing groups, capacity-building initiatives, and other multi-component interventions as strategies used by higher education institutions. Accordingly, faculty members should be supported in establishing realistic research milestones, including proposal preparation, ethics clearance, data collection and analysis, conference presentations, manuscript submission, and publication. The emphasis should shift from participation in research seminars toward completion of the research cycle.

Professional networking should similarly be strengthened as an individual development strategy. The findings indicate that the formation of stronger professional networks was among the more positively perceived contributions to professional growth. Faculty members may be encouraged to participate actively in disciplinary associations, research networks, collaborative projects, conferences, academic consortia, extension partnerships, and professional communities of practice. Such participation can broaden opportunities for co-authorship, research collaboration, leadership, consultancy, and knowledge exchange. However, networking opportunities should not be left entirely to individual initiative; institutional mechanisms should support faculty access to appropriate external professional communities.

At the institutional level, the findings strongly indicate that barriers to participation require organizational intervention. Institutional challenges received a higher composite assessment than personal challenges, with complicated procedures for financial assistance or reimbursement, delayed communication, high teaching and administrative workloads, and limited funding emerging as notable concerns. These findings suggest that improving participation in professional development requires more than encouraging faculty members to manage their time or to demonstrate greater initiative. Recent Philippine evidence similarly identifies workload, job responsibilities, training costs, time requirements, and limited support as barriers to faculty professional development (Dio, 2025). Institutional responses should therefore address the conditions that affect whether faculty members can realistically participate.

One priority is establishing protected or officially recognized professional development time. The results showed concerns regarding both teaching workload and the availability of official time for participation. UDM may therefore consider integrating professional development into workload planning rather than treating participation primarily as an additional responsibility undertaken outside regular faculty obligations. Depending on institutional feasibility, this may involve designated faculty development periods, flexible scheduling, advance adjustment of teaching assignments, asynchronous participation options, or recognition of workload for substantial certification and capability-building programs. International evidence indicates that workload allocation and institutional support are important factors affecting academics' engagement with professional development (Smith & Wyness, 2025).

The university may also strengthen its financial support mechanisms. Financial limitations appeared in both the personal and institutional challenge categories, while financial subsidies and registration support received a comparatively modest assessment under institutional support. Professional development funding could be organized through transparent criteria specifying the types of activities eligible for registration assistance, certification support, conference participation, research training, or travel funding. Equally important is simplifying the administrative process associated with accessing such support. Because complicated financial assistance and reimbursement procedures received the highest mean among the institutional challenges, streamlining forms, approval processes, documentation requirements, and reimbursement timelines may improve the practical accessibility of existing resources, even when the overall institutional budget cannot be increased immediately.

A centralized professional development information and communication system is also recommended. Respondents identified insufficient or delayed communication concerning development opportunities as an institutional challenge. The university could establish an annual or semester-based professional development calendar, supplemented by a centralized digital portal or official communication channel that provides internal and external training opportunities, eligibility requirements, application procedures, schedules, funding information, and deadlines. Advance communication would enable faculty members and academic units to plan participation around teaching, research, administrative, and personal responsibilities.

The findings also support the development of a differentiated professional development framework. While curriculum mapping, pedagogy, educational technology, and research training received relatively high participation rates, community extension leadership and mental health and student support activities had substantially fewer respondents. The program may therefore benefit from maintaining strong core academic offerings while expanding development opportunities in underrepresented areas. Faculty development pathways may be organized around teaching and learning, research and innovation, extension and community engagement, leadership and governance, digital transformation, student support, and professional or international engagement. Within these areas, activities may be further differentiated into introductory, intermediate, and advanced levels, as well as early-career, mid-career, and senior faculty needs. Bélisle et al. (2024) emphasize that professional development should account for diverse faculty learning trajectories rather than presume a uniform developmental pathway.

Particular attention should be given to strengthening the university's research-to-publication support system. The findings suggest that faculty members perceive gains in research design, analysis, ethics, and

grant writing, but somewhat weaker gains in motivation to publish and confidence in conference presentations. UDM could therefore complement research training with sustained mechanisms such as research mentoring, statistical consultation, methodological clinics, writing retreats, manuscript review panels, journal-selection guidance, publication ethics seminars, conference coaching, and institutional research groups. Heaton-Shrestha et al. (2023) found that research productivity interventions are often most effective when multiple forms of support are combined rather than implemented in isolation.

Another institutional priority is to more clearly connect professional development with recognition, performance evaluation, and career progression. The findings showed relatively low ratings for recognition of professional development in annual performance evaluations and for its contribution to rank promotion. The university may therefore review how meaningful professional learning is recognized within existing faculty evaluation and advancement systems. Recognition should not be based simply on the accumulation of certificates or seminar attendance. Greater value could be placed on demonstrated application, such as curriculum innovation, improved instructional materials, research publications, funded projects, mentoring contributions, academic leadership, extension outputs, professional certifications, or other documented outcomes arising from development activities. Such an approach would reinforce the principle that professional development is valuable because it enhances faculty contribution rather than because it generates attendance credentials.

The university should likewise ensure that faculty members have the technological resources necessary to apply newly acquired competencies. The relatively low assessment of institutional provision of software and hardware is particularly important given the substantial participation in ICT and educational technology training. Training faculty members to use digital platforms, research software, artificial intelligence applications, data-analysis tools, or other technologies may have limited practical effect if access to licenses, devices, connectivity, or technical support is inadequate. Professional development planning should therefore be coordinated with institutional technology planning and resource allocation.

The findings further support greater attention to extension, expert service, and external engagement. Participation in community extension leadership training was substantially lower than participation in teaching, technology, and research-related development. At the same time, respondents generally perceived professional development as contributing to their ability to represent the university externally, translating research into community solutions, and provide technical advice. UDM may build on this potential through capability development in community needs assessment, project design, stakeholder engagement, research translation, monitoring and evaluation, impact assessment, consultancy, and public scholarship. Faculty expertise directories and mechanisms that connect faculty specialists with government agencies, communities, professional associations, schools, and other external stakeholders may further strengthen the translation of professional competence into institutional and community service.

Mentoring should serve as a cross-cutting mechanism within the professional development system. Rather than limiting professional development to seminars and workshops, the university could establish structured mentoring relationships for teaching, research, leadership, and career development. Mentoring programs should have defined objectives, appropriate matching procedures, expectations for mentors and mentees, regular consultation, opportunities for feedback, and mechanisms for evaluating progress. Nuis et al. (2023), in a systematic review of 106 higher education mentoring studies, emphasized the need for deliberate mentoring structures and identified key characteristics to guide the design and evaluation of mentoring programs. This suggests that mentoring should be treated as a formal developmental process rather than an informal arrangement dependent solely on personal relationships.

Finally, the Universidad de Manila Professional Development Program should adopt a systematic monitoring and evaluation framework that moves beyond attendance counts and faculty satisfaction. The current findings provide valuable evidence of perceived effectiveness, relevance, accessibility, institutional support, barriers, and perceived contributions, but they do not demonstrate causal program outcomes. Future evaluation should therefore examine multiple levels of evidence, beginning with participation and faculty perceptions and extending to changes in competencies, application to professional practice,

completed outputs, and institutional contributions. Indicators could include redesigned courses, instructional innovations, research proposals, completed studies, publications, conference presentations, grants, certifications, leadership assignments, extension projects, external partnerships, and documented career progression. Follow-up assessments conducted several months after training could determine whether faculty members actually apply what they learned and identify conditions that facilitate or prevent sustained application.

The findings support the development of a comprehensive, differentiated, and institutionally enabled professional development system at Universidad de Manila. At the individual level, faculty members should be encouraged to establish development goals, participate in mentoring and professional networks, apply acquired competencies, and pursue tangible outcomes in teaching, research, career development, and extension. At the institutional level, the university should strengthen workload accommodation, financial assistance, communication systems, technological resources, differentiated programming, mentoring, recognition mechanisms, research-to-publication support, and program evaluation. Importantly, these recommendations should not shift responsibility for professional growth entirely to either the faculty member or the university. Contemporary higher education literature indicates that effective professional development emerges from the interaction between individual agency and an enabling institutional environment (Bélisle et al., 2024; Smith & Wyness, 2025). The findings of the present study therefore suggest that strengthening the UDM Professional Development Program requires both motivated faculty participation and institutional structures that make continuous professional learning accessible, relevant, applicable, and professionally consequential.

CONCLUSIONS

The findings of the study indicate that the Universidad de Manila Professional Development Program is generally perceived positively by faculty respondents and is regarded as a relevant institutional mechanism for supporting continuous professional growth. The respondents represented different colleges and departments and varied considerably in length of service, although the sample was predominantly composed of long-serving faculty members. This profile suggests that the assessment reflects the perspectives of faculty with substantial institutional experience, while the comparatively smaller representation of newer faculty and some academic units should be considered when interpreting the results.

Faculty participation in professional development activities was concentrated primarily in areas directly related to the university's core academic functions. Curriculum mapping and syllabus design, pedagogy and instructional strategies, ICT and educational technology, and research writing and publication were the most frequently attended training areas. In contrast, participation in community extension leadership, mental health, and student support was considerably lower. This pattern indicates that the existing professional development program has placed greater emphasis on instructional, curricular, technological, and research competencies, while opportunities related to extension leadership and student support may require further strengthening to achieve a more balanced faculty development portfolio.

The program was perceived as generally effective, as reflected in the high overall assessment of its content, learning outcomes, delivery methods, applicability, and contribution to academic responsibilities. Respondents particularly recognized the clarity and attainment of learning outcomes and the immediate applicability of acquired skills. These findings suggest that the professional development activities are generally considered relevant and useful to faculty members in performing their academic responsibilities. However, because the study is descriptive and based on self-reported perceptions, these findings should be interpreted as evidence of perceived effectiveness rather than objectively demonstrated program impact.

The assessment of timeliness, relevance, accessibility, and institutional support further indicates that respondents generally view the program favorably, although the strength of these perceptions varies across dimensions. Timeliness and relevance received comparatively higher assessments, suggesting that faculty

members generally consider the activities appropriately organized and responsive to their professional responsibilities. Accessibility was likewise viewed positively, particularly regarding registration and the suitability of physical or virtual venues. Nevertheless, relatively lower ratings for asynchronous access and the absence of restrictive barriers indicate that some faculty members may still experience difficulties participating in development activities.

Institutional support emerged as the comparatively least favorably assessed dimension. Although respondents generally agreed that the university encourages participation in professional development, weaker perceptions were observed regarding financial subsidies, official time for participation, availability of necessary software and hardware, and recognition of professional development in performance evaluations. These findings indicate that the principal opportunities for program improvement may lie not only in the content of training activities but also in strengthening the institutional conditions that enable faculty members to participate and apply what they have learned.

The analysis of challenges reinforces this conclusion. While respondents identified personal barriers such as financial limitations, family responsibilities, teaching demands, technological constraints, and varying interest in training topics, institutional challenges were perceived more strongly overall. Complicated procedures for financial assistance or reimbursement, delayed or insufficient communication regarding opportunities, heavy teaching and administrative workloads, limited financial support, and insufficient diversification of programs by field or academic rank were identified as important constraints. These findings suggest that barriers to participation in professional development are not primarily attributable to individual motivation. Instead, they are closely connected to institutional systems, workload arrangements, resource availability, communication mechanisms, and the alignment of training opportunities with faculty needs.

The findings also demonstrate that professional development is perceived to contribute positively to faculty members' major functions. The strongest perceived contribution was observed in teaching effectiveness, particularly in classroom management, student engagement, student-centered teaching, technology integration, assessment, and responsiveness to diverse learning needs. This suggests that faculty members most readily recognize the benefits of professional development in areas that can be applied directly to instructional practice.

The perceived contribution to research engagement was also positive, particularly in relation to research design, data analysis, research grant preparation, research ethics, and citation management. However, comparatively lower ratings were observed for motivation to publish in peer-reviewed journals and confidence in presenting research at academic conferences. This indicates that while professional development may strengthen research-related knowledge and skills, additional support may be necessary to help faculty members move from research capability development to actual dissemination, publication, and sustained scholarly engagement.

Professional development was likewise perceived as contributing to professional growth and career progression, although this dimension received the lowest composite assessment among the four faculty functions. Faculty members generally recognized benefits in leadership, professional identity, job satisfaction, competence, and professional networking. However, the relatively lower rating for the contribution of professional development to rank promotion suggests that participation in development activities may not yet be sufficiently connected to formal institutional systems of recognition, performance evaluation, or career advancement.

The findings concerning extension and expert service similarly indicate positive perceived contributions, particularly in representing the university in professional organizations, translating research into community solutions, providing technical advice, and designing outreach initiatives. The lower rating for external invitations as consultants or resource speakers suggests that broader professional recognition may depend on factors beyond participation in development programs, including sustained professional visibility, expertise, research productivity, and external networking.

Overall, the study concludes that the Universidad de Manila Professional Development Program is perceived by faculty members as relevant, useful, and supportive of their academic and professional functions, particularly in teaching. At the same time, the findings reveal that the effectiveness of professional development cannot be considered independently of the institutional environment in which faculty members participate and apply their learning. The principal areas for strengthening the program are therefore associated with institutional support, workload accommodation, financial assistance, communication, technological resources, differentiated programming, recognition mechanisms, research dissemination support, and broader development opportunities in extension and student support.

The findings further suggest that the university may benefit from moving toward a more integrated and differentiated faculty development system rather than relying primarily on individual training activities. Such a system should retain strong university-wide programs while incorporating professional development pathways responsive to disciplinary specialization, career stage, existing competencies, and faculty functions. Professional development should likewise be connected more explicitly to opportunities for application, mentoring, research and publication, extension engagement, leadership development, and formal institutional recognition.

Finally, the study's conclusions should remain within the limits of its descriptive design. The results demonstrate favorable faculty perceptions and reported experiences but do not establish that participation in the Professional Development Program directly caused improvements in teaching performance, research productivity, career advancement, extension outcomes, or institutional academic excellence. Future program evaluation should therefore complement perception-based assessment with evidence of actual professional outputs, changes in practice, longitudinal outcomes, and measurable institutional contributions.

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Ultimately, this study reflects the collective commitment of individuals and institutional units that recognize the value of research, continuous professional development, and evidence-informed academic practice. Their contributions affirm the important role of scholarly inquiry in strengthening institutional programs,

enhancing educational practice, and advancing Universidad de Manila's broader mission to serve its academic community and society.

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Financial Resource Allocation Patterns at Universidad de Manila: A Three-Year Analysis of FY 2023-2025 Budget Data

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ABSTRACT

This study examined financial resource allocation patterns at Universidad de Manila from fiscal year (FY) 2023 to FY 2025 using a descriptive quantitative secondary-data design. The analysis focused on changes in the reported total budget; the distribution of Personnel Services (PS) and Maintenance and Other Operating Expenses (MOOE); major expenditure drivers; expenditure concentration; and the limitations of using available budget data to infer institutional priorities, utilization, and efficiency. Results showed that the reported total budget declined by 0.49% in FY 2024 and increased by 5.09% in FY 2025, resulting in a net nominal increase of 4.58% over the period. PS rose by 11.29%, increasing its share of the total budget from 37.92% to 40.35%, while MOOE increased by only 0.48% and declined proportionally from 62.08% to 59.65%. Salaries and wages remained the dominant PS component, while Other Professional Services and Donations together accounted for approximately 77%-79% of MOOE, indicating a substantial concentration of expenditure. The findings suggest increasing personnel commitments and a concentrated operating expenditure structure, with possible implications for financial flexibility. However, the available data do not distinguish among appropriations, allotments, obligations, disbursements, or actual expenditures, nor do they link financial inputs to institutional outputs or outcomes. Consequently, the study cannot establish budget utilization or institutional efficiency. It recommends program-level expenditure mapping, performance-informed budgeting, execution monitoring, disaggregation of high-value categories, inflation-sensitive analysis, and integrated financial-performance reporting to strengthen evidence-based resource allocation and institutional accountability. These strategies may improve transparency and enable assessments to connect financial decisions with measurable institutional performance outcomes.

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INTRODUCTION

Financial management is fundamental to the sustainability and performance of higher education institutions because universities must continuously balance limited resources against expanding academic, research, administrative, technological, infrastructure, and student-support requirements. Financial management in higher education, therefore, involves more than determining the overall size of an institution's budget. It requires decisions concerning how resources are distributed, what institutional activities they support, and whether the resulting expenditure contributes to identifiable outputs and outcomes. The Organization for Economic Co-operation and Development (OECD, 2025) emphasizes that the financial sustainability of higher education depends on institutions' capacity to meet the costs of their current activities while maintaining sufficient resources to invest in the physical, human, and intellectual capital necessary to fulfill long-term strategic objectives. Consequently, the assessment of institutional finances should consider not only the availability of resources but also their allocation, utilization, and relationship to institutional performance.

This distinction is particularly important for public higher education institutions, which operate under conditions of public accountability and are expected to demonstrate responsible stewardship of government resources. An increase in institutional funding may strengthen capacity by supporting personnel, facilities, services, technology, and academic programs; however, a larger budget does not by itself establish greater effectiveness or efficiency. The World Bank (2023) argues that adequate education financing and effective public spending should be treated as complementary rather than competing concerns, noting that increased expenditure does not automatically translate into better educational outcomes. From a public financial management perspective, the critical issue is therefore not simply whether more resources are available but whether they are allocated and used in ways that address institutional needs and generate meaningful educational results.

The concept of efficiency further requires careful interpretation in higher education financial analysis. Institutional efficiency generally concerns the relationship between resources or costs and the outputs produced by those resources, rather than the proportion of expenditure allocated to a particular budget category. Johnes and Johnes (2009), for example, examined higher education efficiency through cost functions that relate institutional production to resource requirements. Within the Philippine context, Cuenca (2011) applied data envelopment analysis to 78 state universities and colleges by relating expenditure inputs to measurable outputs, including student enrolment, graduates, and institutional revenues. Such approaches demonstrate that expenditure data alone are insufficient for determining whether an institution is financially or technically efficient. Claims concerning efficiency require corresponding information on institutional outputs, service delivery, productivity, and other measurable results.

The Philippine public budgeting system provides an important framework for examining university financial allocations. Government expenditures and appropriations are classified by economic or expense categories, including Personnel Services (PS), Maintenance and Other Operating Expenses (MOOE), Capital Outlays (CO), and Financial Expenses (FinEx) (Department of Budget and Management [DBM], 2024). Personnel Services generally include salaries, wages, benefits, allowances, and other forms of compensation, while MOOE encompasses operating requirements such as utilities, supplies, maintenance, programs, activities, projects, professional services, assistance, and other current operating expenditures. These classifications are useful for understanding the economic composition of public expenditure, particularly the balance between personnel commitments and operational requirements.

However, economic classifications should not automatically be interpreted as functional classifications. Personnel expenditure may support teaching, research, student services, administration, extension, or other institutional functions, depending on the personnel involved. Similarly, MOOE may finance academic programs, information technology, student support, research activities, professional services, institutional operations, or community-oriented programs. Thus, the classification of an expenditure as PS or MOOE does not, by itself, establish whether the expenditure primarily supports academic, administrative, research, student-service, or extension functions. Meaningful assessment of institutional priorities requires additional information concerning the program, activity, project, cost center, beneficiary, or intended output associated with each expenditure.

This emphasis on results is consistent with contemporary public financial management in the Philippines. The DBM's Budget Operations Manual for Local Government Units, 2023 Edition emphasizes the integration of planning and budgeting and the importance of linking resource allocation with programs, projects, activities, performance indicators, and targets (DBM, 2023). Such an approach reflects the principles of performance-informed budgeting, in which financial resources are considered in relation to the results they are intended to achieve. For publicly funded institutions, this approach strengthens accountability because expenditures can be evaluated not only for compliance with financial classifications but also for their contribution to institutional objectives and public-service outcomes.

For a local public higher education institution such as Universidad de Manila (UDM), effective resource allocation requires balancing personnel obligations with operating requirements and institutional development priorities. The university must sustain its human resources while simultaneously supporting instructional delivery, student services, research, technology, facilities, extension activities, and

administrative operations. Changes in the relative shares of PS and MOOE may therefore provide useful information about the evolving structure of institutional financial commitments. In particular, a sustained increase in personnel expenditure relative to operating expenditure may have implications for financial flexibility, although such a pattern cannot be automatically characterized as inefficient without information on staffing requirements, workload, service demand, compensation policies, and corresponding institutional outputs.

Despite the importance of these considerations, analysis based solely on annual financial allocations has inherent limitations. Budget figures may represent different stages of the public expenditure process, including appropriations, allotments, obligations, disbursements, or actual expenditures, and these concepts should not be treated interchangeably. Likewise, allocation data do not establish budget utilization unless actual obligations or disbursements can be compared with authorized resources. Assessing institutional efficiency requires a further analytical step: relating financial inputs to outputs and outcomes, such as student enrolment and completion, instructional workload, licensure performance where applicable, research productivity, extension services, student-support coverage, and administrative service delivery (Cuenca, 2011; Johnes & Johnes, 2009).

Against this background, the present study examines the financial resource allocation patterns of Universidad de Manila from FY 2023 to FY 2025, focusing on changes in the reported total budget, the distribution between Personnel Services and Maintenance and Other Operating Expenses, and the concentration of selected major expenditure items. The three-year financial data provide an opportunity to identify changes in the size and composition of reported institutional resources and to determine whether particular expenditure categories account for substantial proportions of PS or MOOE. Such analysis can provide a descriptive foundation for financial planning by identifying patterns in personnel commitments, operating expenditures, and expenditure concentration.

The study does not, however, assume that expenditure concentration or changes in budget shares constitute evidence of institutional efficiency or inefficiency. The available dataset does not report corresponding program outputs and outcomes, functional beneficiaries of major expenditures, inflation-adjusted values, or sufficiently detailed information regarding budget execution. Accordingly, the analysis is deliberately limited to financial allocation patterns, expenditure composition, and concentration. By maintaining this distinction, the study seeks to provide a defensible assessment of the university's reported financial structure while identifying the additional financial and performance information necessary for more comprehensive evaluation of resource utilization, value for money, and institutional efficiency. In doing so, the study contributes to the broader objective of strengthening transparent, performance-informed, and evidence-based financial management in public higher education.

STATEMENT OF THE PROBLEM

Financial resource allocation is a critical component of institutional management in public higher education because it reflects how available resources are distributed among personnel, operations, and other institutional requirements. For Universidad de Manila, examining changes in the reported budget structure can provide useful information on the direction of financial commitments and the relative weight of major expenditure categories over time. In particular, the distribution between Personnel Services (PS) and Maintenance and Other Operating Expenses (MOOE) offers a descriptive view of how the institution allocates resources between personnel-related obligations and operating requirements.

However, changes in budget size or expenditure composition should not automatically be interpreted as evidence of improved or declining institutional efficiency. Meaningful assessment of financial efficiency requires information on how expenditures are translated into measurable institutional outputs and outcomes. In the present study, the available financial data permit an examination of reported allocation patterns, proportional shares, major expenditure items, and expenditure concentration from FY 2023 to FY 2025, but they do not provide sufficient information on program-level beneficiaries, budget execution, outputs, or outcomes.

Accordingly, the study seeks to examine the financial resource allocation patterns of Universidad de Manila from FY 2023 to FY 2025, with particular attention to changes in the reported total budget, the distribution of Personnel Services and MOOE, the concentration of major expenditure items, and the implications of these patterns for financial planning and flexibility. It also seeks to identify the limitations of the available financial data and to propose strategies that may strengthen the linkage between resource allocation and measurable institutional results.

Specifically, the study seeks to answer the following research questions:

1. What is the trend in the reported total budget of Universidad de Manila from FY 2023 to FY 2025 in terms of:
 - 1.1 annual budget amount;
 - 1.2 year-to-year percentage change; and
 - 1.3 overall change across the three-year period?
2. What changes occurred in the absolute amounts and proportional shares of:
 - 2.1 Personnel Services; and
 - 2.2 Maintenance and Other Operating Expenses from FY 2023 to FY 2025?
3. What are the major reported expenditure items under Personnel Services and MOOE, and what proportion of their respective expense classes does each item represent?
4. To what extent is the reported expenditure structure concentrated within major Personnel Services and MOOE categories, and what are the possible implications of this concentration for financial flexibility?
5. What limitations in the available budget data constrain the interpretation of:
 - 5.1 institutional priorities;
 - 5.2 budget utilization; and
 - 5.3 institutional efficiency?

Based on the findings, what financial management strategies may be proposed to strengthen the linkage between resource allocation and measurable institutional outputs and outcomes?.

METHODOLOGY

The study employed a descriptive quantitative secondary-data research design to examine the financial resource allocation patterns of Universidad de Manila across three consecutive fiscal years, from FY 2023 to FY 2025. Secondary-data analysis involves the systematic examination of existing information originally generated or collected for purposes other than the specific research questions being investigated and is appropriate when available records can be used to identify patterns, trends, and relationships relevant to a new inquiry (Kelly et al., 2024). In the present study, annual financial data were compared to describe changes in the reported total budget, the composition of major expense classes, and the distribution of selected expenditure items. The design is longitudinal only in the descriptive sense that comparable institutional financial categories were examined across successive fiscal years. It was not intended as a causal, experimental, or econometric assessment of institutional efficiency.

The financial dataset used in the analysis was reported as originating from official institutional financial records covering FY 2023, FY 2024, and FY 2025. The study focused specifically on the reported total budget and the two major expense classes available in the dataset: Personnel Services (PS) and Maintenance and Other Operating Expenses (MOOE). However, the available source documentation did not specify the exact titles of the financial reports, the responsible originating office, the approval or audit status of the records, or the accounting basis used in presenting the figures. More importantly, the available records did not establish whether the reported amounts represented appropriations, allotments, obligations, disbursements, or actual expenditures. These distinctions are material in public financial analysis because Philippine government financial reporting separately recognizes appropriations, allotments, obligations, and disbursements as different stages or measures of budget authority and execution (Department of Budget

and Management [DBM], 2023). Accordingly, the amounts examined in this study are consistently described as reported budget data, reported allocations, or reported financial amounts, rather than as budget utilization or actual expenditure, unless their status can be independently established.

The principal variables examined were the reported total budget, Personnel Services, Maintenance and Other Operating Expenses, and selected major expenditure items within each expense class. The reported PS items included Salaries and Wages, Bonus–Civilian, Retirement and Life Insurance Premiums (RLIP), and PhilHealth contributions. The selected MOOE items consisted of Other Professional Services, Donations, Office Supplies, Printing and Binding, and Security Services. These items were analyzed to determine their absolute amounts and relative contribution to their corresponding expense classes over the three-year period. Because the available tables contained only selected expenditure items rather than a complete functional disaggregation of the budget, the analysis was limited to identifying the concentration and movement of the reported categories.

Descriptive financial analysis was performed using absolute amounts, year-to-year percentage changes, proportional shares, percentage-point changes, and concentration measures. The year-to-year percentage change was calculated by subtracting the previous fiscal year's amount from the succeeding fiscal year's amount, dividing the difference by the previous year's amount, and multiplying the result by 100. The net change from FY 2023 to FY 2025 was similarly computed to determine the overall nominal movement across the study period. The compound annual growth rate (CAGR) was calculated across the two annual intervals between FY 2023 and FY 2025 to provide an annualized measure of change in the reported total budget, PS, and MOOE.

To determine changes in expenditure composition, the proportional share of PS and MOOE was calculated by dividing the amount assigned to each expense class by the reported total budget for the corresponding fiscal year and expressing the result as a percentage. Changes in these proportions were further expressed in percentage points to distinguish shifts in budget composition from percentage growth in absolute peso amounts. The selected PS and MOOE expenditure items were likewise expressed as proportions of their respective expense-class totals. Particular attention was given to the combined share of the largest MOOE categories to determine the degree to which reported operating expenditures were concentrated in a limited number of line items.

The analysis remained descriptive rather than inferential. No hypothesis tests were performed because the purpose of the study was to characterize changes within the available institutional financial series rather than to estimate population parameters from a sample. More importantly, no technical, allocative, cost, or overall efficiency coefficients were calculated because the available dataset did not include the corresponding institutional outputs or outcomes. Higher education efficiency analysis requires examining financial or other resource inputs relative to measurable institutional outputs, such as enrolment, graduates, research outputs, revenues, or other service outcomes (Cuenca, 2011; Johnes & Johnes, 2009). The absence of such output measures prevents the present study from determining whether a particular expenditure structure represents efficient or inefficient resource use.

Interpretation of the findings was further guided by the distinction between economic expense classification and the functional purpose of expenditure. Personnel Services and MOOE describe the economic nature of government expenditures, but they do not independently identify the institutional functions supported by those expenditures. Consequently, an expenditure classified under PS or MOOE cannot be characterized solely from its expense classification as academic, administrative, research-oriented, student-centered, extension-related, core, or noncore. Such interpretations require additional information on program, project, activity, cost center, responsible office, contract, or beneficiary. This methodological limitation is particularly important when interpreting large expenditure categories because their institutional contribution cannot be determined from the financial label alone.

The study also treated all reported amounts as nominal peso values because the source data were not adjusted for inflation. Consequently, increases across fiscal years represent changes in nominal monetary amounts and should not automatically be interpreted as equivalent increases in real purchasing power. This distinction is relevant to higher education finance because inflation can reduce the real value of institutional

resources even when nominal allocations increase. The OECD (2025) emphasizes the importance of considering the real costs of delivering higher education activities when assessing institutional financial sustainability. The three-year comparisons in the present study therefore describe only nominal financial trends.

Finally, several methodological boundaries were maintained to prevent conclusions that exceed what the available data can support. The study does not calculate budget utilization rates because the necessary relationship between authorized resources and their corresponding obligations or disbursements has not been established. It does not infer institutional priorities solely from the relative size of PS or MOOE, because functional beneficiaries and program purposes were unavailable. It likewise does not assess institutional efficiency, value for money, or causal effects because output and outcome measures were not included in the dataset. These limitations are consistent with the principles of secondary-data research, in which conclusions must remain responsive to the structure, completeness, original purpose, and measurement limitations of the available dataset (Kelly et al., 2024). Within these boundaries, the methodology provides a defensible basis for describing budget trends, expenditure composition, and financial concentration at Universidad de Manila from FY 2023 to FY 2025.

RESULTS and DISCUSSION

Trend in the Reported Total Budget of Universidad De Manila from FY 2023 to FY 2025

This section presents the findings on ICT-related activities undertaken by local government units (LGUs) and community-based organizations in District 1 of Makati City that fall under the coordination of cybersecurity policies and programs mandated by Section V of Republic Act No. 10844. The results reflect residents' awareness and perceptions of existing initiatives aimed at promoting cybersecurity at the community level.

Table 1. Trend in the Reported Total Budget of Universidad De Manila from FY 2023 to FY 2025

Fiscal year	Reported total budget (P)	Year-to-year change	Index (2023=100)	Comment
2023	424,350,952	—	100.00	Baseline
2024	422,288,176	-0.49%	99.51	Slight nominal decline
2025	443,765,308	+5.09%	104.58	Nominal rebound

Table 1 presents the trend in the reported total budget of Universidad de Manila from FY 2023 to FY 2025. The data indicate a relatively stable nominal budget over the three-year period, characterized by a slight decline in FY 2024 followed by a more pronounced rebound in FY 2025. The reported total budget for FY 2023 was ₱424,350,952, serving as the baseline year. In FY 2024, the reported budget decreased to ₱422,288,176, representing a year-to-year decline of 0.49%. The index value of 99.51 confirms that the FY 2024 budget was slightly below the FY 2023 baseline.

The decline from FY 2023 to FY 2024 amounted to approximately ₱2.06 million. In proportional terms, however, the decrease was modest. A reduction of less than one percent suggests that the university's reported financial resource envelope remained broadly stable during the period rather than undergoing a substantial contraction. Nevertheless, even relatively small nominal changes should be interpreted within the broader context of operating costs, compensation requirements, inflation, enrolment, service demand, and institutional obligations. The Organization for Economic Co-operation and Development (OECD, 2025) notes that the financial sustainability of higher education institutions depends not merely on maintaining nominal funding levels but also on whether available resources are sufficient to cover the actual costs of ongoing activities while preserving the capacity to invest in institutional priorities.

A different pattern emerged in FY 2025, when the reported total budget increased to ₱443,765,308. This represented a 5.09% increase from FY 2024, equivalent to approximately ₱21.48 million. The 2025 index of 104.58, using FY 2023 as the base of 100, indicates that the reported budget was approximately 4.58%

above its FY 2023 level. Thus, the increase recorded in FY 2025 not only recovered the modest reduction experienced in the preceding year but also raised the nominal budget above the original baseline.

Across the entire period, the reported total budget increased by approximately ₱19.41 million, from ₱424.35 million in FY 2023 to ₱443.77 million in FY 2025. This corresponds to an overall nominal increase of approximately 4.58%. Expressed as an annualized rate across the two-year interval, the pattern represents a compound annual growth rate of approximately 2.26%. The figures therefore indicate modest nominal expansion rather than rapid budget growth.

The three-year pattern is better characterized as a temporary nominal contraction followed by a financial rebound than as a continuous upward trend. This distinction is important because the available observations cover only three fiscal years. One year of substantial increase following a slight decline does not provide sufficient evidence to conclude that the university has entered a sustained period of budgetary expansion. A longer time series would be necessary to determine whether the FY 2025 increase represents the beginning of a persistent growth trajectory, a one-time adjustment, or normal year-to-year budget variation.

The increase in the reported budget should also not be automatically interpreted as an improvement in the university's actual financial capacity. The amounts reported in the table are nominal peso values and have not been adjusted for inflation. Nominal growth refers to an increase in the number of pesos allocated, whereas real growth considers whether those additional pesos provide greater purchasing power after accounting for changes in prices. This distinction is especially relevant in higher education, where personnel compensation, utilities, equipment, supplies, information technology, facilities maintenance, and professional services are all affected by changing costs. The OECD (2025) identifies real-term declines in public subsidies, particularly when inflation increases institutional operating costs, as a significant challenge to the financial sustainability of higher education. Consequently, the 4.58% nominal increase between FY 2023 and FY 2025 cannot, by itself, establish that Universidad de Manila had 4.58% more real resources available to support its institutional functions.

The findings also require a distinction between budget size and institutional effectiveness. A larger budget may expand the university's capacity to support personnel, academic programs, student services, research, technology, facilities, and other institutional activities, but the increase does not demonstrate that these resources were used efficiently or produced improved outcomes. The World Bank (2023) emphasizes that increasing education expenditure does not automatically yield better educational outcomes; adequate financing must be accompanied by the effective allocation and use of resources. Within Philippine higher education, Cuenca (2011) similarly assessed institutional efficiency by relating expenditure inputs to measurable outputs such as enrolment, graduates, and revenues rather than treating expenditure levels alone as indicators of performance.

Accordingly, the FY 2025 increase should be interpreted as an indication of greater reported nominal resource allocation, not as direct evidence of increased institutional efficiency, improved academic performance, or expanded service delivery. Establishing such relationships would require information on the outputs supported by the additional resources, including changes in faculty and staff complement, instructional delivery, student enrolment and completion, research productivity, student services, extension activities, infrastructure, technology, and other institutional outcomes.

Another important consideration is that the table reports the total budget amount without establishing the stage of budget execution represented by the figures. As indicated in the study methodology, the available source information does not establish whether the values constitute appropriations, allotments, obligations, disbursements, or actual expenditures. Therefore, the increase from ₱422.29 million in FY 2024 to ₱443.77 million in FY 2025 should be described as an increase in the reported budget or allocation, rather than in actual spending or budget utilization. A higher approved or reported allocation does not necessarily mean that the entire amount was obligated or disbursed during the fiscal year.

From a financial management perspective, the pattern shown in Table 1 provides an important starting point but not a complete assessment of Universidad de Manila's fiscal position. The slight decline in FY 2024

followed by the FY 2025 rebound demonstrates that the university's nominal resource envelope remained relatively stable and ultimately increased over the period. However, the more important management question concerns how the additional resources were distributed and what institutional requirements they were intended to support. The OECD (2025) emphasizes that sustainable higher education financing requires institutions to understand the costs of their activities, maintain adequate resources for strategic objectives, and link funding decisions with the activities and outputs expected from the institution.

The subsequent analysis of Personnel Services and Maintenance and Other Operating Expenses is therefore necessary to determine whether the overall increase in the reported budget was accompanied by changes in the composition of expenditures. The total budget may increase while some expenditure categories remain stagnant or decline, altering the institution's financial flexibility and capacity to respond to competing priorities. Examining the relative growth of PS and MOOE can consequently provide a more informative picture of how the university's financial commitments changed during the period.

Overall, Table 1 indicates that Universidad de Manila experienced limited nominal budget movement between FY 2023 and FY 2024 followed by a stronger nominal increase in FY 2025. The net result was a 4.58% increase relative to the FY 2023 baseline. The finding demonstrates a recovery and modest expansion of the reported budget but should not be interpreted as evidence of equivalent growth in real purchasing power, improved budget utilization, or greater institutional efficiency. A more comprehensive assessment would require inflation-adjusted financial data, clear identification of the stage of budget execution, longer-term financial trends, and explicit linkage between expenditures and measurable institutional outputs and outcomes (Cuenca, 2011; OECD, 2025; World Bank, 2023).

Changes occurred in the absolute amounts and proportional shares of Personnel Services and MOOE

This section examines the extent to which adherence to Section V of Republic Act No. 10844 has contributed to the establishment and maintenance of a secure ICT environment in the communities of District 1, Makati City, with specific emphasis on data privacy and protection. The findings reflect residents' trust in local government practices related to personal data handling and cybersecurity safeguards.

Table 2. Distribution Between Personnel Services and MOOE

Year	PS (₱)	PS share	PS YoY	MOOE (₱)	MOOE share	MOOE YoY
2023	160,918,666	37.92%	—	263,432,286	62.08%	—
2024	167,174,454	39.59%	+3.89%	255,113,722	60.41%	-3.16%
2025	179,079,991	40.35%	+7.12%	264,685,317	59.65%	+3.75%

Table 2 presents the distribution of the reported Universidad de Manila budget between Personnel Services (PS) and Maintenance and Other Operating Expenses (MOOE) from FY 2023 to FY 2025. The results reveal a gradual but consistent change in the composition of the reported budget. While MOOE remained the larger expense class throughout the period, the share allocated to PS increased each year. This pattern indicates that personnel-related financial commitments grew more rapidly than operating expenditure, resulting in a modest shift in the university's reported resource structure toward Personnel Services.

In FY 2023, Personnel Services amounted to ₱160,918,666, representing 37.92% of the reported total budget. MOOE, at ₱263,432,286, accounted for the remaining 62.08%. Thus, at the beginning of the study period, approximately three-fifths of the reported resource envelope was classified under operating expenditures, while slightly more than one-third was allocated to personnel-related requirements. Under the Philippine public budgeting framework, Personnel Services generally covers salaries, benefits, allowances, and other forms of employee compensation, whereas MOOE finances day-to-day government operations, programs, activities, projects, supplies, utilities, maintenance, and other operating requirements (Department of Budget and Management [DBM], 2024). The distribution, therefore, provides an economic classification of the university's reported resources but does not, by itself, identify the specific academic or administrative functions supported by those expenditures.

A notable divergence between the two expense classes occurred in FY 2024. Personnel Services increased to ₱167,174,454, representing a year-to-year growth of 3.89%, while MOOE declined to ₱255,113,722, equivalent to a reduction of 3.16%. In absolute terms, PS increased by approximately ₱6.26 million, while MOOE decreased by approximately ₱8.32 million. As a consequence, the PS share of the reported total budget increased from 37.92% to 39.59%, a rise of approximately 1.67 percentage points, while the MOOE share fell correspondingly from 62.08% to 60.41%.

This pattern helps explain why the university's reported total budget declined slightly in FY 2024 despite an increase in personnel expenditure. The growth in PS was insufficient to offset the reduction in MOOE. More importantly, the result demonstrates that changes in the total budget can conceal meaningful differences in the movement of individual expense classes. An institution may experience little change in its overall resource envelope while simultaneously undergoing a substantial rebalancing of the resources available for personnel and operating requirements. Financial analysis should therefore examine both the absolute amounts and proportional composition of expenditures rather than relying solely on changes in the total budget.

In FY 2025, both expense classes increased, although Personnel Services again grew more rapidly. PS reached ₱179,079,991, representing a year-to-year increase of 7.12%, while MOOE increased to ₱264,685,317, or 3.75% above its FY 2024 level. The increase in PS amounted to approximately ₱11.91 million, compared with approximately ₱9.57 million for MOOE. Consequently, the proportion allocated to PS increased further to 40.35%, while the MOOE share declined to 59.65%.

The FY 2025 results therefore indicate that the rebound in the university's total reported budget was shared between personnel and operating requirements, but the rate of increase was again stronger for Personnel Services. The additional 0.76 percentage-point increase in the PS share between FY 2024 and FY 2025 continued the compositional shift that began during the preceding year. Across the full three-year period, the PS share increased by approximately 2.43 percentage points, from 37.92% to 40.35%, while the MOOE share declined by the same magnitude, from 62.08% to 59.65%.

The contrast becomes more evident when the absolute changes between FY 2023 and FY 2025 are considered. Personnel Services increased by approximately ₱18.16 million, equivalent to 11.29%, during the period. MOOE, by comparison, increased by only approximately ₱1.25 million, or 0.48%, relative to its FY 2023 amount. Thus, almost all of the net nominal growth in the reported resource envelope over the three-year period was attributable to increased personnel-related allocations rather than sustained expansion in operating expenditure.

The increase in Personnel Services should not, however, be interpreted automatically as evidence of excessive personnel expenditure or declining institutional efficiency. Higher education is inherently dependent on human resources because teaching, research, academic administration, student services, extension, and institutional management are largely carried out by faculty and staff. The OECD (2025) identifies personnel costs as a major component of expenditure in higher education institutions and notes that rising wage bills constitute an important source of cost pressure across higher education systems. The significance of a rise in PS therefore depends on the underlying reasons for the increase, which may include salary adjustments, benefits, staffing requirements, additional positions, changes in employment arrangements, or other personnel-related obligations.

The available financial data do not permit these possible explanations to be distinguished. Consequently, the observed 11.29% increase in PS should be interpreted as evidence of a growing personnel-related financial commitment rather than inefficiency. Determining whether this increase represents appropriate or excessive expenditure would require additional information such as the number of faculty and staff positions, compensation adjustments, employee classifications, faculty workload, student enrolment, student-faculty ratios, service demand, and corresponding institutional outputs.

Similarly, the relatively limited growth in MOOE warrants careful interpretation. Although MOOE recovered from ₱255.11 million in FY 2024 to ₱264.69 million in FY 2025, its FY 2025 level was only 0.48% higher

than in FY 2023 in nominal terms. Because the amounts were not adjusted for inflation, the almost unchanged nominal level does not necessarily imply that the university maintained the same real operating capacity throughout the period. Rising prices for utilities, supplies, maintenance, professional services, information technology, transportation, and other operating requirements can reduce the purchasing power of a relatively stable MOOE allocation. The OECD (2025) identifies inflation-driven increases in institutional operating costs and declines in the real value of funding as important financial sustainability challenges in higher education. Thus, the near-stagnation of MOOE in nominal terms may warrant closer monitoring even though the present study cannot determine its inflation-adjusted value.

The changing balance between PS and MOOE also has implications for financial flexibility. Personnel expenditures often represent ongoing institutional commitments because salaries, benefits, and related obligations must be covered on a recurring basis. By contrast, portions of operating expenditure may provide institutions with greater capacity to respond to changing needs involving equipment, technology, supplies, maintenance, professional services, academic initiatives, research support, and other operational requirements. As PS consumes an increasingly large share of a relatively stable resource envelope, the amount available for other operating priorities may become increasingly constrained unless the overall budget grows sufficiently to accommodate both personnel and operational requirements.

This interpretation should nevertheless remain cautious. A rising PS share is not inherently undesirable if the increase supports the hiring of needed faculty, appropriate compensation, improved student services, specialized technical personnel, research capacity, or other productive institutional functions. Likewise, a higher MOOE share is not inherently preferable, as the value of operating expenditures depends on the programs, activities, services, and beneficiaries they support. The more appropriate management concern is, therefore, whether the balance between personnel and operating expenditures aligns with institutional needs and measurable results.

The World Bank (2023) similarly emphasizes that the effectiveness of education financing cannot be determined solely by the amount of spending. Additional resources generate value when they address important constraints and contribute to improved educational outcomes. In the Philippine higher education context, Cuenca (2011) demonstrated that institutional efficiency requires consideration of financial inputs together with outputs such as enrolment, graduates, and revenues. Applied to the present findings, determining whether the growing PS allocation represents productive investment would require linking personnel expenditure to indicators such as faculty workload, instructional capacity, student outcomes, research productivity, service delivery, and other institutional outputs.

The results also reinforce the importance of distinguishing expense classification from institutional function. According to DBM (2024), PS and MOOE are economic classifications of government expenditure. A faculty salary and an administrative employee salary may both fall under Personnel Services, while instructional supplies, student programs, professional services, research activities, or administrative operating expenses may all potentially appear under MOOE. Therefore, the declining MOOE share cannot be automatically interpreted as declining support for academic programs, just as the increasing PS share cannot be automatically characterized as increased administrative expenditure. Such conclusions require program-level or cost-center information that is not available in the current dataset.

Overall, Table 2 demonstrates a progressive shift in the reported budget structure toward Personnel Services between FY 2023 and FY 2025. PS increased by 11.29% over the period and expanded its share of the reported total budget from 37.92% to 40.35%. MOOE, in contrast, declined in FY 2024 and subsequently recovered in FY 2025, but its three-year nominal increase was only 0.48%, while its share declined from 62.08% to 59.65%. The principal financial implication is therefore not that one expense class is inherently more efficient than the other, but that personnel commitments increased substantially faster than operating resources.

For financial planning, this trend warrants continued monitoring, as sustained growth in personnel expenditure without a comparable expansion in operating resources could gradually reduce budgetary flexibility. However, a definitive assessment requires the university to relate changes in PS and MOOE to staffing requirements, inflation, workload, program delivery, operating costs, and measurable institutional

outputs. The findings therefore support a performance-informed approach in which changes in expenditure composition are evaluated according to the institutional activities and results they finance rather than according to expense shares alone (DBM, 2024; OECD, 2025).

Major Reported Expenditure Items under Personnel Services and MOOE

Table 3. major Personnel Services Drivers

Category	2023 (P)	2023 % PS	2024 (P)	2024 % PS	2025 (P)	2025 % PS
Salaries and Wages	110,951,208	68.95%	115,264,092	68.95%	120,610,788	67.35%
Bonus - Civilian	18,491,868	11.49%	19,210,682	11.49%	20,101,798	11.23%
RLIP	13,314,145	8.27%	13,831,692	8.27%	14,473,295	8.08%
PhilHealth	2,464,025	1.53%	2,861,668	1.71%	2,987,109	1.67%
Listed items as a share of PS	—	90.25%	—	90.43%	—	88.33%

Table 3 presents the major reported components of Personnel Services (PS) at Universidad de Manila from FY 2023 to FY 2025. The results show that PS was highly concentrated in salaries and wages, followed by civilian bonuses, Retirement and Life Insurance Premiums (RLIP), and PhilHealth contributions. Collectively, these four reported items accounted for 90.25% of PS in FY 2023, 90.43% in FY 2024, and 88.33% in FY 2025, indicating that the table captures most of the university's reported personnel-related financial commitments during the period.

The largest component was consistently Salaries and Wages, amounting to ₱110.95 million in FY 2023, ₱115.26 million in FY 2024, and ₱120.61 million in FY 2025. In absolute terms, salaries and wages increased by approximately ₱9.66 million, or 8.71%, between FY 2023 and FY 2025. Despite this increase, their proportional share of total PS declined slightly from 68.95% in both FY 2023 and FY 2024 to 67.35% in FY 2025. This means that salaries and wages continued to dominate Personnel Services, but other PS components grew faster by the end of the period.

The dominance of salary expenditure is consistent with the labor-intensive nature of higher education. Universities depend heavily on academic, administrative, technical, and support personnel to deliver instruction, conduct research, provide student services, manage institutions, and perform other functions. The OECD (2025) reports that staff compensation represents a major component of tertiary education expenditure across higher education systems, reflecting the central role of human resources in institutional operations. However, the international expenditure measure is not directly comparable to UDM's Personnel Services classification, and the present data do not specify how much of the university's salary expenditure was attributable to academic, administrative, technical, or other personnel. The finding should therefore be interpreted as evidence of the financial importance of human resources rather than as an indication of any particular staffing pattern.

The second-largest reported PS component was Bonus–Civilian, which increased from ₱18.49 million in FY 2023 to ₱19.21 million in FY 2024 and ₱20.10 million in FY 2025. This represents an overall increase of approximately 8.71% across the three-year period. Its share of PS remained relatively stable, at 11.49% in FY 2023 and FY 2024, before declining slightly to 11.23% in FY 2025. The close correspondence between the growth of salaries and wages and civilian bonuses suggests that these two components moved broadly together during the period. Nevertheless, the available data do not identify the specific compensation policies, number of eligible employees, or administrative basis underlying these changes. Consequently, the increases should be described as observed expenditure patterns rather than attributed to a particular salary or bonus policy.

Retirement and Life Insurance Premiums (RLIP) constituted the third-largest reported component. RLIP increased from ₱13.31 million in FY 2023 to ₱13.83 million in FY 2024 and ₱14.47 million in FY 2025,

representing an overall increase of approximately 8.71%. Its proportional share declined modestly from 8.27% in FY 2023 and FY 2024 to 8.08% in FY 2025. RLIP represents an employer-related personnel benefit obligation within government budgeting and is generally linked to employee compensation and covered positions (Department of Budget and Management [DBM], 2019). Its broad parallel movement with salaries and wages is therefore not unexpected, although the dataset does not provide sufficient information to determine the precise formula or employee base used by the university for each fiscal year.

Among the listed components, PhilHealth contributions exhibited the fastest proportional increase. The reported amount rose from ₱2.46 million in FY 2023 to ₱2.86 million in FY 2024 and ₱2.99 million in FY 2025. This represents an increase of approximately ₱523,084, or 21.23%, from FY 2023 to FY 2025. Its share of PS rose from 1.53% in FY 2023 to 1.71% in FY 2024, then eased slightly to 1.67% in FY 2025.

The movement in PhilHealth expenditure occurred during a period when the statutory premium contribution rate for direct contributors increased from 4.5% in 2023 to 5.0% in 2024 and remained at 5.0% in 2025, while the corresponding income ceiling also increased under the Universal Health Care contribution schedule (Philippine Health Insurance Corporation [PhilHealth], 2025). This national policy context provides a plausible explanation for part of the increase in institutional PhilHealth obligations. However, the UDM dataset does not provide employee-level salary information, membership counts, employer-share computations, or contribution schedules. The observed 21.23% increase, therefore, cannot be attributed solely to changes in PhilHealth premium rates. Changes in employee numbers, salary levels, covered personnel, or other payroll-related factors could also have contributed.

An important finding is the relative stability of the proportional structure of the four major PS categories during the first two fiscal years. In FY 2023 and FY 2024, salaries and wages accounted for exactly 68.95% of PS, bonuses for 11.49%, and RLIP for 8.27%. This stable composition suggests that the growth in Personnel Services during this interval was not caused by a single unusually large expenditure category. Rather, the principal listed components increased in a broadly proportional manner. This supports the interpretation that the rise in PS reflected general growth in personnel-related commitments rather than a one-time concentration in one major line item.

The pattern changed somewhat in FY 2025. Although all four listed categories continued to increase in peso terms, their combined share of total PS declined from 90.43% in FY 2024 to 88.33% in FY 2025. Salaries and wages, bonuses, and RLIP all lost a small proportion of the PS total despite increasing in absolute amounts. This indicates that other personnel-related categories not presented separately in Table 3 grew faster in aggregate during FY 2025.

The residual PS categories not individually shown in the table amounted to approximately ₱15.70 million in FY 2023, ₱16.01 million in FY 2024, and ₱20.91 million in FY 2025. Their combined share consequently increased from approximately 9.75% of PS in FY 2023 to 11.67% in FY 2025. This increase warrants further disaggregation because it contributed to the overall growth of Personnel Services and partly explains why the proportional share of salaries and wages declined despite their continued nominal increase. Without information on these remaining categories, however, it would be inappropriate to infer what specific benefits, allowances, contributions, or personnel obligations accounted for the additional growth.

From a financial management perspective, the concentration of PS in salaries and related employee benefits is not inherently problematic. Higher education requires substantial investment in human capital, and appropriate compensation and statutory benefits are necessary to attract, retain, and support qualified personnel. The OECD (2025) notes that staffing levels, compensation, student-staff ratios, institutional scale, and the organization of academic activities are among the factors that strongly influence higher education costs. Consequently, the appropriateness of UDM's personnel expenditure cannot be assessed solely from the fact that salaries constitute the majority of PS.

The more relevant management issue concerns whether the growth in personnel expenditure is aligned with staffing needs and institutional outputs. Between FY 2023 and FY 2025, total PS increased by 11.29%, while the university's total reported budget increased by only 4.58%. As established in the preceding analysis, this caused the PS share of the total budget to rise from 37.92% to 40.35%. If this pattern

continues, personnel expenditure could consume an increasing proportion of the university's available resources. Whether this represents an appropriate investment or a constraint on financial flexibility depends on factors not available in the current dataset, including faculty and staff numbers, salary adjustments, staffing vacancies, workload, enrolment, student-faculty ratios, service requirements, and productivity.

Accordingly, personnel expenditure should ideally be evaluated alongside human-resource and institutional performance indicators. For academic personnel, relevant measures may include faculty numbers, teaching loads, student-faculty ratios, courses delivered, research outputs, extension participation, and student outcomes. For administrative and support personnel, relevant indicators may include staffing levels, service demand, transaction volumes, processing times, and service quality. Such linkage would make it possible to determine whether increases in PS are accompanied by corresponding changes in institutional capacity and performance.

The findings also illustrate why Personnel Services should not be treated as a homogeneous functional expenditure category. Salaries, bonuses, RLIP, and health-insurance contributions are economic classifications associated with employees, but the personnel receiving these benefits may contribute to teaching, research, student services, extension, administration, information technology, facilities management, or other institutional functions. Thus, a high PS share cannot be equated automatically with excessive administrative expenditure. Functional conclusions require employee-level or cost-center information identifying where personnel are assigned and what institutional services they provide.

Table 3 indicates that the increase in Personnel Services from FY 2023 to FY 2025 was supported by broad growth across the major reported personnel components, with salaries and wages remaining the dominant driver. Salaries, civilian bonuses, and RLIP each increased by approximately 8.71%, while PhilHealth contributions rose more rapidly at approximately 21.23%. At the same time, the combined share of the four listed categories declined to 88.33% in FY 2025, indicating faster growth in other PS components that are not separately reported.

The appropriate interpretation is therefore that UDM experienced a broadening personnel cost base rather than growth attributable to a single isolated line item. For stronger financial assessment, future reporting should disaggregate the remaining PS categories and relate changes in personnel expenditure to staffing levels, compensation policies, academic and administrative workload, and measurable institutional outputs. Such information would permit the university to determine whether rising personnel commitments are proportionate to changes in institutional capacity and service requirements rather than relying solely on expenditure shares as indicators of financial performance.

Table 4. Major MOOE Drivers

Category	2023 (P)	2023 % MOOE	2024 (P)	2024 % MOOE	2025 (P)	2025 % MOOE
Other Professional Services	90,000,000	34.16%	90,000,000	35.28%	90,000,000	34.00%
Donations	117,540,000	44.62%	111,572,000	43.73%	113,970,000	43.06%
Office Supplies	8,000,000	3.04%	8,000,000	3.14%	8,000,000	3.02%
Printing and Binding	5,000,000	1.90%	5,000,000	1.96%	5,000,000	1.89%
Security Services	6,524,162	2.48%	6,524,162	2.56%	7,769,208	2.94%
Listed items as share of MOOE	—	86.19%	—	86.67%	—	84.91%
Professional Services + Donations	—	78.78%	—	79.01%	—	77.06%

Table 4 presents the major reported components of Maintenance and Other Operating Expenses (MOOE) at Universidad de Manila from FY 2023 to FY 2025. The results show a highly concentrated expenditure structure, with Other Professional Services and Donations accounting for the majority of reported MOOE in all three fiscal years. The five listed items collectively accounted for 86.19% of total MOOE in FY 2023, 86.67% in FY 2024, and 84.91% in FY 2025, indicating that the table captures most of the reported operating expenditure, with a relatively small residual distributed across other MOOE categories.

The largest single reported MOOE component was Donations, amounting to ₱117.54 million in FY 2023, ₱111.57 million in FY 2024, and ₱113.97 million in FY 2025. Its proportional share declined gradually from 44.62% of MOOE in FY 2023 to 43.73% in FY 2024 and 43.06% in FY 2025. In absolute terms, Donations decreased by approximately ₱5.97 million, or 5.08%, between FY 2023 and FY 2024, before recovering by approximately ₱2.40 million, or 2.15%, in FY 2025. Despite the partial recovery, the FY 2025 amount remained approximately 3.04% below the FY 2023 level.

This pattern indicates that Donations remained the dominant operating expenditure category despite a modest decline in both the peso amount and its proportional share over the study period. However, the category requires careful interpretation. The available financial data do not identify the beneficiaries, the program purpose, the legal basis, or the institutional function associated with the reported Donations amount. Consequently, the expenditure cannot be classified, based on the available information, as academic, administrative, student-centered, community-oriented, or noncore. The Unified Accounts Code Structure used in Philippine public financial management is designed to classify and consolidate government financial transactions, but a meaningful functional interpretation still requires sufficient information on programs, activities, beneficiaries, and organizations (Department of Budget and Management [DBM], 2014).

The second largest MOOE component was Other Professional Services, which remained fixed at ₱90.00 million across all three fiscal years. Because total MOOE changed from year to year, its proportional share varied slightly, accounting for 34.16% in FY 2023, 35.28% in FY 2024, and 34.00% in FY 2025. The higher proportional share in FY 2024, therefore, did not result from an increase in the peso allocation for professional services; rather, it reflected a decline in total MOOE during that fiscal year.

The fixed nominal value of ₱90.00 million across three consecutive years is analytically noteworthy. It may indicate a recurring contractual, programmatic, or operating requirement, but the dataset does not provide sufficient information to determine the nature of these services. Other Professional Services could potentially support a wide range of activities, including specialized academic services, consultancy, information technology, technical support, accreditation, institutional operations, or other professional requirements. Therefore, its consistently large share of MOOE cannot be interpreted as evidence of excessive administrative expenditure without further disaggregation.

The combined importance of Other Professional Services and Donations is the most striking feature of Table 4. Together, these categories accounted for 78.78% of MOOE in FY 2023, 79.01% in FY 2024, and 77.06% in FY 2025. Thus, approximately four out of every five pesos reported under MOOE were concentrated in only two-line items during the first two years, with the proportion remaining above three-fourths in FY 2025. This indicates a relatively concentrated operating expenditure structure.

Expenditure concentration can affect budgetary flexibility because a large proportion of available operating resources is committed to a small number of expenditure categories. If the largest items represent contractual, statutory, or recurring obligations, the portion of the budget available for discretionary or emerging needs may be comparatively constrained. However, concentration alone does not establish financial rigidity or misallocation. The OECD (2025) emphasizes that assessing higher education financial sustainability requires understanding what institutional activities actually cost and whether the available resources are aligned with the outputs and strategic objectives they are expected to support. Accordingly, the significance of UDM's MOOE concentration depends on what the two dominant categories finance and whether those expenditures contribute to institutional priorities.

Office Supplies remained constant at ₱8.00 million throughout FY 2023 to FY 2025. Its share of MOOE was 3.04% in FY 2023, increased marginally to 3.14% in FY 2024, and declined to 3.02% in FY 2025. Similarly, Printing and Binding remained fixed at ₱5.00 million annually, accounting for between 1.89% and 1.96% of MOOE. The apparent stability of these categories in nominal terms should not automatically be interpreted as stability in real purchasing capacity. Because the figures are not adjusted for inflation, the same nominal amount may purchase fewer supplies or services over time as prices increase. The OECD (2025) identifies inflation-related increases in operating costs as a significant challenge to the financial sustainability of higher education, reinforcing the need to distinguish nominal allocations from their real value.

In contrast, Security Services remained unchanged at ₱6.52 million in FY 2023 and FY 2024, then increased to ₱7.77 million in FY 2025. This represents an increase of approximately 19.08% from FY 2023 to FY 2025, making Security Services the fastest-growing category among the five listed MOOE items. Its share of MOOE consequently increased from 2.48% in FY 2023 to 2.56% in FY 2024 and 2.94% in FY 2025. Although the increase is substantial in percentage terms, Security Services remained a relatively small component of total MOOE compared with Donations and Other Professional Services.

The reasons for the increase in Security Services cannot be determined from the current dataset. Possible explanations could include changes in contractual rates, service coverage, staffing requirements, minimum wage adjustments, additional facilities, or revised security arrangements, but none of these factors is documented in the available financial records. The finding should therefore be limited to the observed financial change rather than attributed to a specific operational cause.

The five reported categories together amounted to approximately ₱227.06 million in FY 2023, ₱221.10 million in FY 2024, and ₱224.74 million in FY 2025. The remaining unlisted MOOE categories therefore accounted for approximately ₱36.37 million, ₱34.02 million, and ₱39.95 million, respectively. Their proportional share increased from approximately 13.81% in FY 2023 to 15.09% in FY 2025. This increase indicates that other MOOE categories not individually presented in Table 4 became somewhat more prominent in FY 2025, even though the overall structure remained dominated by the two largest reported items.

From a financial management perspective, the concentration shown in Table 4 warrants further program-level disaggregation. The DBM's Unified Accounts Code Structure is intended to promote transparency, consolidation, and accountability in government financial reporting by linking financial transactions with standardized codes and classifications (DBM, 2014). For institutional decision-making, however, economic classifications should ideally be supplemented with information on programs, activities, projects, responsible offices, beneficiaries, and expected outputs. Without this detail, a high-value MOOE line item provides information about financial concentration but offers limited evidence regarding institutional purpose or effectiveness.

The OECD (2025) likewise emphasizes that sustainable higher education financing requires an understanding of the activities institutions deliver, the costs associated with those activities, and the resources necessary to achieve specific strategic objectives. Applied to the UDM data, this means that a ₱90 million allocation for Other Professional Services or a ₱113.97 million allocation for Donations cannot be evaluated solely on the basis of amount. Their financial significance depends on whether they support instruction, research, student services, information technology, extension, facilities, administration, or other institutional priorities, and on whether measurable outputs or outcomes are associated with the expenditures.

The concentration pattern also reinforces the distinction between economic expenditure classification and institutional priority. A large MOOE category should not automatically be labeled as nonacademic or administrative simply because it falls outside Personnel Services. The DBM framework recognizes MOOE as an economic classification encompassing a broad range of government operating requirements, programs, projects, and services. Therefore, conclusions regarding the strategic alignment of the largest MOOE items require more detailed functional information than the current table provides.

Overall, Table 4 demonstrates that Universidad de Manila's reported MOOE structure was highly concentrated but relatively stable in composition from FY 2023 to FY 2025. Donations remained the largest category, although its share declined gradually from 44.62% to 43.06%. Other Professional Services remained fixed at ₱90.00 million annually and consistently represented approximately one-third of MOOE. Together, these two categories accounted for between 77.06% and 79.01% of total MOOE, indicating that most reported operating resources were concentrated in a small number of expenditure lines.

At the same time, the data do not establish whether such concentration is appropriate, excessive, or inefficient. The interpretation is constrained by the absence of information regarding the specific purposes, beneficiaries, contracts, programs, and outputs associated with the two dominant categories. The appropriate financial management response is therefore not to assume that these expenditures are noncore, but to strengthen functional transparency and program-level reporting. Disaggregating high-value MOOE categories by activity, beneficiary, responsible office, and expected institutional result would enable UDM to determine whether concentrated operating expenditures are strategically justified and aligned with institutional objectives

Concentration of the Reported Expenditure Structure and Implications for Financial Flexibility

The findings indicate that the reported expenditure structure of Universidad de Manila was substantially concentrated within a small number of Personnel Services and MOOE categories from FY 2023 to FY 2025. Concentration was evident in Personnel Services because salaries and wages alone accounted for approximately two-thirds of PS, while salaries and civilian bonuses together represented close to four-fifths of the expense class. A similar pattern was observed in MOOE, where Donations and Other Professional Services together consistently accounted for more than three-fourths of total reported operating expenditure.

To summarize this pattern, a simple two-category concentration ratio (CR2) was computed by adding the proportional shares of the two largest reported categories within each expense class. This descriptive measure does not constitute a formal efficiency or competition index; rather, it indicates how much of each expense class was concentrated in its two largest reported components.

Table 5. Summary of Reported Expenditure Concentration, FY 2023–FY 2025

Concentration indicator	FY 2023	FY 2024	FY 2025
Personnel Services			
Salaries and Wages share of PS	68.95%	68.95%	67.35%
Two largest PS items: Salaries and Wages + Bonus–Civilian (CR2)	80.44%	80.44%	78.58%
Four listed PS items as share of PS	90.25%	90.43%	88.33%
Other/unlisted PS categories	9.75%	9.57%	11.67%
Maintenance and Other Operating Expenses			
Donations share of MOOE	44.62%	43.73%	43.06%
Two largest MOOE items: Donations + Other Professional Services (CR2)	78.78%	79.01%	77.06%
Five listed MOOE items as share of MOOE	86.19%	86.67%	84.91%
Other/unlisted MOOE categories	13.81%	13.33%	15.09%

Note. Percentages are based on the reported expense-class totals. CR2 represents the combined share of the two largest reported categories. Because the available dataset does not provide a complete disaggregation of all expenditure categories, more comprehensive concentration indices were not estimated.

The Personnel Services structure was particularly concentrated in Salaries and Wages, which accounted for 68.95% of PS in FY 2023 and FY 2024, and 67.35% in FY 2025. When civilian bonuses are added, the

two largest categories accounted for 80.44% of PS in both FY 2023 and FY 2024 and 78.58% in FY 2025. Furthermore, the four identified PS components—Salaries and Wages, Bonus—Civilian, Retirement and Life Insurance Premiums, and PhilHealth—collectively represented between 88.33% and 90.43% of the total PS allocation. These figures demonstrate that the majority of reported personnel expenditure was concentrated on compensation and related employee obligations.

Such concentration is structurally understandable in higher education because universities are highly dependent on human resources. The OECD (2025) notes that tertiary education is labor-intensive and that staff compensation constitutes a substantial component of institutional expenditure across higher education systems. Accordingly, the concentration of UDM's PS in salaries and employee-related costs should not be interpreted as inherently problematic. Rather, it indicates that a substantial portion of Personnel Services is tied to ongoing personnel commitments that are generally less discretionary in the short term.

The financial flexibility implication arises from the interaction between this concentration and the broader budget trend. Total Personnel Services increased from ₱160.92 million in FY 2023 to ₱179.08 million in FY 2025, representing an 11.29% increase, while its share of the reported total budget rose from 37.92% to 40.35%. As personnel-related commitments occupy a larger proportion of the resource envelope, a smaller proportional share may remain available for other expenditure requirements unless the overall institutional budget expands at a comparable or faster rate.

This does not mean that rising personnel expenditure necessarily reduces institutional effectiveness. Additional personnel resources may be necessary to accommodate enrolment, improve student-faculty ratios, retain qualified faculty, meet statutory compensation requirements, strengthen research capacity, or expand student and administrative services. The relevant issue is whether the growth in personnel expenditure is supported by corresponding changes in staffing requirements, workload, service demand, and measurable institutional outputs. The OECD (2025) emphasizes that staffing ratios, employment arrangements, institutional scale, teaching activities, and research intensity are among the factors that influence higher education cost structures. Consequently, financial flexibility cannot be evaluated solely from the PS share.

The MOOE structure exhibited a comparable level of concentration but presents a different interpretive issue. Donations and Other Professional Services together represented 78.78% of MOOE in FY 2023, 79.01% in FY 2024, and 77.06% in FY 2025. Thus, approximately four-fifths of reported MOOE was concentrated in only two categories during FY 2023 and FY 2024, and more than three-fourths remained concentrated in these categories in FY 2025. The five listed MOOE components collectively accounted for 86.19%, 86.67%, and 84.91% of MOOE across the three fiscal years.

The concentration ratio declined modestly in FY 2025. The combined share of the two largest MOOE categories fell from 79.01% in FY 2024 to 77.06% in FY 2025, while the residual share represented by other MOOE categories increased from 13.33% to 15.09%. A similar modest decline occurred in PS concentration, where the two largest categories declined from 80.44% to 78.58%. These changes indicate a slight broadening of the reported expenditure structure in FY 2025, but the magnitude is insufficient to characterize the budget as substantially diversified. Both expense classes remained concentrated in a relatively small number of line items.

From a financial management perspective, concentration can affect financial flexibility when a large portion of available resources is already committed to recurring, contractual, statutory, or otherwise difficult-to-adjust expenditures. Financial flexibility, in this context, refers to the institution's capacity to redirect or mobilize resources in response to changing academic priorities, unforeseen requirements, technological developments, infrastructure needs, research opportunities, student-service demands, or other emerging institutional pressures.

The OECD (2025) emphasizes that financially sustainable higher education institutions must not only cover the costs of their ongoing activities but also maintain sufficient capacity to invest in the physical, human,

and intellectual resources required to achieve strategic objectives. When a large proportion of the budget is committed to a limited number of expenditure categories, the amount readily available for new priorities may become more constrained, particularly when total revenues or allocations do not increase correspondingly.

This concern is most readily understood in relation to Personnel Services. Salaries, benefits, retirement premiums, and mandatory employee contributions generally represent continuing obligations. Once staffing and compensation commitments are established, they may be difficult to reduce or redirect in the short term. Consequently, sustained growth in PS relative to the total budget can create a structural expenditure commitment, potentially limiting the resources available for operating activities, equipment, technology, research, maintenance, student support, and other development priorities.

The implications of MOOE concentration are less certain because the current dataset does not reveal whether the two dominant items represent similarly fixed commitments. Other Professional Services remained at ₱90 million annually, suggesting a recurring expenditure requirement, while Donations remained above ₱111 million in each year. However, the nature, duration, beneficiaries, contractual arrangements, and institutional purposes of these expenditures are not identified. It would therefore be inappropriate to conclude that these allocations necessarily restrict financial flexibility in the same manner as personnel obligations.

This distinction is critical. If Other Professional Services represents multi-year contracts or essential outsourced operations, a large portion of MOOE may effectively be committed before other operating priorities are considered. Conversely, if these expenditures are adjustable from year to year, the university may retain greater budgetary discretion than the concentration percentages imply. Similarly, the financial significance of Donations cannot be evaluated without identifying its recipients, legal basis, institutional objectives, and whether the expenditure is mandatory, recurring, discretionary, or program-specific.

The Department of Budget and Management's performance-informed budgeting framework emphasizes the importance of connecting financial resources with programs, activities, performance indicators, and expected results (DBM, 2023). Applied to the current findings, expenditure concentration should therefore be examined not merely in terms of how many categories consume the budget but in terms of what those concentrated expenditures finance and what institutional results they produce.

For example, a highly concentrated professional-services allocation may be strategically justified if it finances critical information technology systems, specialized academic services, accreditation requirements, laboratory operations, research services, or other high-value institutional functions. Conversely, even a more diversified expenditure structure would not necessarily represent superior financial management if expenditures were poorly aligned with institutional objectives. Concentration is therefore best viewed as a financial planning signal requiring further examination, rather than as direct evidence of either efficiency or inefficiency.

The findings also demonstrate the limitations of using economic classifications alone to assess financial flexibility. PS and MOOE indicate the economic nature of expenditure but not necessarily its functional purpose. According to the Philippine public financial management framework, expenditures can also be examined according to organizational, programmatic, and functional classifications (DBM, 2023). Such disaggregation would allow UDM to identify how much of its concentrated expenditure supports instruction, research, student services, extension, information technology, administration, facilities, and other institutional functions.

A more comprehensive assessment of financial flexibility would therefore require a program-level and cost-center analysis. For Personnel Services, expenditures should be linked with the number and distribution of academic, administrative, technical, and support personnel; faculty workload; student-faculty ratios; vacancies; compensation policies; and service demand. For MOOE, major categories should be disaggregated according to program, responsible office, contract, beneficiary, funding purpose, duration,

and expected output. These additional data would reveal whether the observed concentration reflects unavoidable commitments, strategic investments, or areas where resources may be redirected.

The findings further suggest the value of establishing a financial flexibility indicator or dashboard for future institutional monitoring. Such a system could distinguish between relatively fixed and discretionary expenditures, recurring and nonrecurring commitments, contractual obligations, available balances, and resources that may be redirected to emerging priorities. It could also link these financial measures with academic and operational indicators. The OECD (2025) emphasizes that understanding the actual costs of different higher education activities requires more detailed cost information, with approaches such as activity-based costing providing a means of more transparently attributing direct and indirect costs to institutional functions.

The use of activity- or function-based costing would be especially useful for UDM because the current economic classifications cannot determine which institutional activities receive the largest expenditures. For instance, personnel costs could be distributed across teaching, research, extension, student services, and administration according to staff assignments or workload, while professional services could be allocated to the programs or functions they support. This would improve the institution's capacity to assess whether expenditure concentration reflects strategic priorities and whether sufficient flexible resources remain for other objectives.

Overall, the findings demonstrate that the reported expenditure structure of Universidad de Manila was highly concentrated in a limited number of categories within both Personnel Services and MOOE. The two largest PS categories accounted for approximately 78.58% to 80.44% of Personnel Services, while the two largest MOOE categories accounted for approximately 77.06% to 79.01% of operating expenditure. Although concentration declined modestly in FY 2025, the overall expenditure structure remained substantially concentrated.

The principal implication for financial flexibility is that a large portion of the university's reported resources may be associated with a relatively small set of financial commitments. This is particularly relevant for Personnel Services, where compensation and employee-related expenditures are likely to represent recurring institutional obligations. For MOOE, however, the degree to which concentration restricts flexibility cannot be determined without additional information on the purposes and contractual characteristics of Other Professional Services and Donations.

Accordingly, the findings do not support the conclusion that UDM's concentrated expenditure structure is inherently inefficient. Instead, they demonstrate the need for greater functional transparency, expenditure disaggregation, and performance linkage. The university would benefit from distinguishing fixed from discretionary costs, disaggregating high-value expenditure categories, and linking concentrated resources to measurable institutional outputs. Such an approach would provide a stronger basis for determining whether the existing expenditure structure preserves sufficient financial flexibility while supporting the university's academic and strategic priorities (DBM, 2023; OECD, 2025).

Limitations of the Available Budget Data in Interpreting Institutional Priorities, Budget Utilization, and Institutional Efficiency

The financial data analyzed in the study provide a useful descriptive picture of how the reported budget of Universidad de Manila changed from FY 2023 to FY 2025 and how the available amounts were distributed between Personnel Services (PS), Maintenance and Other Operating Expenses (MOOE), and selected expenditure items. However, the dataset has important limitations that restrict the conclusions that can be drawn from the observed expenditure patterns. In particular, the available information is insufficient to confidently establish the university's institutional priorities, determine actual budget utilization, or measure institutional efficiency. These three concepts require different forms of financial and performance evidence that extend beyond the economic classifications and annual amounts reported in the present dataset.

Institutional Priorities

The first limitation concerns the interpretation of institutional priorities. Budget allocation can provide evidence of organizational priorities when expenditures are explicitly linked to programs, activities, projects, organizational units, strategic objectives, and intended beneficiaries. In the present study, however, the available data are primarily organized according to economic expense classifications, particularly Personnel Services and MOOE. These classifications identify the economic nature of expenditure but do not establish the institutional function it supports.

This distinction is critical. Personnel Services may finance faculty members, administrative personnel, technical staff, student-service personnel, researchers, or other employees whose functions span teaching, research, extension, student support, administration, and institutional management. Similarly, MOOE may support academic programs, laboratories, information technology, student activities, professional services, extension initiatives, research operations, utilities, maintenance, security, or administrative requirements. Consequently, the relative size of PS and MOOE cannot be used on its own to determine whether the university prioritizes teaching, research, student services, administration, extension, or any other institutional function.

The limitation is particularly evident in the two largest MOOE categories. Other Professional Services and Donations together accounted for 78.78% of MOOE in FY 2023, 79.01% in FY 2024, and 77.06% in FY 2025, yet the available data do not identify the specific programs, beneficiaries, contracts, activities, or institutional objectives associated with these expenditures. Their large financial shares, therefore, demonstrate expenditure concentration but do not establish which institutional priorities they represent. It would be methodologically inappropriate, for example, to characterize these expenditures as predominantly administrative or nonacademic without further functional information.

The same concern applies to Personnel Services. Salaries and wages accounted for approximately two-thirds of PS during the study period, but the dataset does not distinguish salary expenditures by academic, administrative, research, technical, or support personnel. Therefore, the growing PS share of the total reported budget cannot automatically be interpreted as an increasing emphasis on administration or, conversely, as increased investment in academic personnel.

The Philippine public financial management framework supports a more detailed approach to interpreting priorities. The Department of Budget and Management (DBM, 2023) emphasizes the linkage of budgetary resources with programs, activities, projects, performance indicators, and targets. Under performance-informed budgeting, the meaning of an allocation is strengthened when resources can be connected to the output and results they are intended to produce. Accordingly, a more defensible assessment of UDM's institutional priorities would require financial data organized not only by economic expense but also by program, cost center, responsible office, functional area, beneficiary, and strategic objective.

The present data, therefore, allow the study to state that the university allocated increasing resources to personnel-related expenditure and maintained a highly concentrated MOOE structure, but they do not establish the underlying strategic priorities behind those allocations. To determine institutional priorities more accurately, future analyses should map PS, MOOE, Capital Outlays, and other expenditures to teaching, research, extension, student services, information technology, facilities, administration, and other strategic functions.

Budget Utilization

The second major limitation concerns the interpretation of budget utilization. The figures reported for FY 2023 to FY 2025 do not clearly identify whether they represent appropriations, allotments, obligations, disbursements, or actual expenditures. These categories refer to different stages of the public budget process and should not be treated as interchangeable.

An appropriation represents legislative authorization to spend for specified purposes, whereas an allotment constitutes authority released to an agency or operating unit to incur obligations. Obligations refer to commitments arising from acts that bind the government to pay for goods, services, personnel, or other authorized expenditures, while disbursements generally refer to the actual settlement or payment of those obligations. The DBM's public financial reporting framework distinguishes these concepts precisely because each provides different information about budget authority and execution (DBM, 2023).

Because the present dataset does not specify which stage the reported amounts correspond to, the study cannot calculate a valid budget utilization rate. A utilization measure ordinarily requires both an authorized resource base and a measure of the amount actually obligated or disbursed. For example, an obligation utilization rate would require comparing obligations with corresponding allotments, while a disbursement measure would require appropriate expenditure execution data. Without both the numerator and the denominator, a defensible percentage of utilization cannot be computed.

This distinction is important because a budget allocation does not necessarily indicate that the entire amount was actually spent. An institution may receive an appropriation or allotment but obligate or disburse only a portion of it during the fiscal year. Conversely, changes in annual allocation may not fully reflect the timing of obligations, payments, continuing appropriations, or prior-year commitments. Consequently, the reported increase in UDM's budget from approximately ₱424.35 million in FY 2023 to ₱443.77 million in FY 2025 establishes a change in the reported financial amount but does not demonstrate that actual spending or utilization increased by the same magnitude.

The absence of execution data also prevents identification of possible underutilization, delayed utilization, or differences in execution across expense categories. For example, PS may have a relatively predictable execution pattern because salaries and employee benefits recur regularly, whereas some MOOE items may depend on procurement timelines, contracts, program implementation, or administrative approvals. Without obligation and disbursement data, these differences remain unknown.

For future analysis, the university should therefore report appropriations, allotments, obligations, and disbursements separately by fiscal year and major expenditure category. This would permit calculation of obligation and disbursement utilization rates, comparison of execution across programs and expense classes, identification of unutilized balances, and examination of whether allocated resources are translated into actual institutional activities within the intended fiscal period.

Institutional Efficiency

The third and most significant limitation concerns the assessment of institutional efficiency. The present dataset contains financial inputs but does not provide corresponding institutional outputs or outcomes. As a result, expenditure levels and expenditure shares cannot be used to determine whether Universidad De Manila operated efficiently during the three-year period.

Efficiency is fundamentally relational. It concerns the extent to which an institution converts available inputs into outputs or outcomes. In higher education, financial expenditure may be one input, but evaluating efficiency requires corresponding measures of institutional production. These may include enrolment, graduates, course delivery, faculty workload, research outputs, publications, externally funded projects, student retention, licensure performance where applicable, extension beneficiaries, student-service coverage, or administrative service outputs.

Cuenca (2011), for example, examined the efficiency of Philippine state universities and colleges by relating expenditure inputs to measurable outputs, such as enrolment, graduates, and internally generated revenues, using data envelopment analysis. Johnes and Johnes (2009) similarly approached higher education efficiency as a relationship between institutional costs and the outputs produced rather than as a simple comparison of expenditure categories. These approaches demonstrate why the proportion assigned to PS or MOOE cannot, by itself, establish efficiency.

The present findings clearly illustrate this limitation. Personnel Services increased by 11.29% between FY 2023 and FY 2025, considerably faster than the 4.58% growth in the total reported budget. This may indicate increasing personnel commitments, but it does not establish whether the additional resources generated proportionate improvements in institutional capacity. If the increase supported additional qualified faculty, improved student-faculty ratios, expanded course delivery, stronger student services, increased research productivity, or other institutional improvements, the additional personnel expenditure may represent productive investment. Conversely, if output remained unchanged despite substantial increases in personnel costs, the financial implication would be different. The current data do not allow either conclusion.

The same limitation applies to MOOE concentration. Other Professional Services and Donations together accounted for approximately 77% to 79% of MOOE over the period, but concentration alone does not indicate whether these resources were used efficiently or inefficiently. Their efficiency can only be evaluated if the services, beneficiaries, objectives, and resulting outputs are identified.

The World Bank (2023) emphasizes that greater education spending does not automatically produce better outcomes, and that adequacy and effectiveness of spending must be considered together. Similarly, the OECD (2025) argues that financial sustainability and resource management in higher education require understanding both the costs of institutional activities and the value they deliver. These principles support the conclusion that expenditure composition is necessary but insufficient evidence for assessing institutional efficiency.

Another limitation is that the reported amounts are nominal rather than adjusted inflation. This is relevant because an apparent increase in financial input may partly reflect higher prices rather than an increase in the real volume of resources available to the institution. Without adjusting for inflation, the 4.58% increase in the total reported budget from FY 2023 to FY 2025 cannot be interpreted as an equivalent increase in real purchasing power. Similarly, the nearly unchanged MOOE allocation over the period may reflect a decline in real operating capacity if the costs of goods and services have increased.

The short observation period also constrains the interpretation of efficiency. Three fiscal years provide sufficient information to describe recent changes but are insufficient to identify long-term financial and productivity trends. A stronger efficiency assessment would require a longer panel of comparable financial and institutional performance data and, where appropriate, analytical methods such as data envelopment analysis, stochastic frontier analysis, or cost-function approaches. Such methods should only be applied when sufficiently comparable input and output measures are available.

The limitations demonstrate that institutional priorities, budget utilization, and institutional efficiency represent three analytically distinct questions that cannot be answered from expenditure amounts alone. The available dataset provides credible evidence regarding the size, composition, growth, and concentration of the reported budget, but it does not provide the functional, execution, and performance information required to answer these broader financial management questions.

For institutional priorities, the missing information concerns where resources are used and for what institutional purposes. For budget utilization, the missing information concerns whether authorized resources were actually obligated and disbursed. For institutional efficiency, the missing information concerns what measurable outputs and outcomes were produced from the resources used.

Table 7. Data Requirements for More Comprehensive Financial Assessment

Area of interpretation	What the current data show	Key information missing	What stronger analysis would require
Institutional priorities	Distribution across PS, MOOE, and selected line items	Programs, functions, beneficiaries, cost centers,	Functional and program-level expenditure mapping

		responsible offices, strategic objectives	
Budget utilization	Reported annual financial amounts	Appropriations, allotments, obligations, disbursements, balances	Obligation and disbursement utilization rates
Institutional efficiency	Financial input levels and expenditure composition	Academic, research, student-service, extension, and administrative outputs and outcomes	Input-output analysis, cost indicators, and appropriate efficiency methods
Real resource capacity	Nominal changes across FY 2023–FY 2025	Inflation-adjusted expenditure values	Constant-price or real expenditure analysis
Long-term financial performance	Three-year financial pattern	Longer comparable time series	Multi-year trend and longitudinal analysis

The distinction summarized in Table 6 has direct implications for future financial reporting at Universidad de Manila. The university would benefit from developing an integrated financial management framework in which economic classifications are connected with functional purposes, budget execution measures, and performance indicators. Such a system would allow the institution to move progressively from answering how much was allocated to where resources were directed, how much was actually utilized, what outputs were produced, and whether the relationship between resources and outcomes represents efficient institutional performance.

Overall, the available financial data are adequate for describing allocation patterns and expenditure concentration, but insufficient to draw definitive conclusions about institutional priorities, budget utilization, or efficiency. Accordingly, the present study appropriately limits its claims to observed financial patterns. Stronger conclusions would require program-level disaggregation, complete budget-execution data, inflation adjustment, measurable institutional outputs and outcomes, and a longer period of observation. This cautious interpretation is consistent with performance-informed budgeting and with contemporary approaches to higher education financial analysis, which emphasize that financial inputs acquire meaning only when they can be linked to the institutional activities and results they support (DBM, 2023; OECD, 2025).

Financial Management Strategies for Strengthening the Linkage Between Resource Allocation and Measurable Institutional Outputs and Outcomes

The findings of the study indicate that strengthening financial management at Universidad de Manila requires moving beyond the monitoring of expenditure classifications toward a results-oriented resource management system. The three-year analysis shows that the university's reported total budget increased modestly, Personnel Services grew more rapidly than MOOE, and a substantial proportion of both expense classes was concentrated in a small number of expenditure categories. At the same time, the available financial data do not identify the specific institutional outputs and outcomes generated by these resources. Consequently, the principal financial management challenge is not simply determining whether particular expenditure categories should increase or decrease, but establishing a transparent mechanism through which resources can be traced from allocation, to execution, to institutional activity, and ultimately to measurable results.

This direction is consistent with performance-informed budgeting, which links financial resources with programs, performance indicators, and tangible targets. The Department of Budget and Management (DBM, 2023) defines performance-informed budgeting as an approach that uses performance information to link funding with results and support more informed resource allocation and management. The Philippine Public Financial Management Reforms Roadmap 2024–2028 likewise emphasizes strengthened program structures, performance indicators, targets, monitoring, and evaluation as part of contemporary public

financial management reform (DBM, 2024). For Universidad de Manila, adopting these principles would provide a stronger basis for evaluating whether financial resources contribute to teaching, research, student services, extension, administration, and institutional development.

Table 8. Proposed Financial Management Strategies Based on the Study Findings

Study finding or limitation	Proposed financial management strategy	Illustrative outputs or indicators
PS increased faster than the total budget and MOOE	Link personnel expenditure with workforce and productivity indicators	Faculty and staff complement, teaching load, student-faculty ratio, courses delivered, research outputs, service volume
MOOE is highly concentrated in Other Professional Services and Donations	Disaggregate high-value MOOE categories by purpose, program, beneficiary, contract, and responsible office	Type of service, beneficiaries reached, deliverables completed, contract outputs, program results
Economic classifications do not reveal institutional functions	Establish program-level, functional, and cost-center reporting	Expenditure for teaching, research, student services, extension, administration, ICT, facilities
Budget figures do not distinguish stages of execution	Report appropriations, allotments, obligations, disbursements, and balances separately	Obligation rate, disbursement rate, unobligated balance, aging of obligations
Expenditures are not linked with outputs and outcomes	Adopt performance-informed budgeting	Output indicators, outcome indicators, annual targets, actual accomplishments, cost per output
Current data do not permit efficiency assessment	Develop input-output and unit-cost indicators	Cost per student, cost per graduate, cost per research output, cost per beneficiary or service
Three-year figures are nominal	Incorporate inflation-adjusted and multi-year analysis	Nominal versus real expenditure growth, projected cost pressures, medium-term funding requirements
Financial performance data are fragmented	Develop an integrated financial-performance dashboard	Budget, execution, outputs, outcomes, variance, trends, and management alerts

The first strategy is to establish a program-level, functional, and cost-center reporting structure that complements the existing PS and MOOE economic classifications. The current expenditure categories are useful for determining the economic nature of spending, but they do not show which institutional functions benefit from the resources. Salary expenditure, for example, may support teaching, research, student services, administration, extension, or technical operations, while professional services under MOOE may support information technology, accreditation, academic programs, research, or administrative services. Consequently, the university should develop a crosswalk that associates major expenditures with organizational units, programs, activities, beneficiaries, and institutional objectives.

A functional reporting structure could classify expenditures by major university functions, such as instruction, research and innovation, student support, extension and community engagement, academic administration, general administration, information technology, facilities and infrastructure, and institutional development. Each function could then be linked to responsible offices and measurable deliverables. Such reporting would allow university management to determine not only that ₱179.08 million was classified under Personnel Services in FY 2025, but also the proportion of personnel expenditure supporting instruction, research, student support, administration, and other institutional functions.

The need for more detailed cost attribution is supported by recent international literature on higher education finance. The OECD (2025) notes that expenditure data become considerably more useful when institutions can attribute direct and indirect costs to specific activities. Activity-based costing approaches

used in some higher education systems allocate institutional expenditure to functions such as teaching, research, and other activities, enabling management to identify the full economic costs associated with institutional delivery. Although UDM need not immediately implement a highly complex activity-based costing system, a light-touch functional costing framework could substantially improve the interpretation of its current financial data.

A second strategy is to formally adopt performance-informed budgeting at the institutional level. Each major budgetary program or activity should be accompanied by clearly defined output indicators, outcome indicators, baselines, annual targets, and actual accomplishments. DBM (2023) emphasizes that performance-informed budgeting aligns financial resources with measurable performance indicators and tangible targets, thereby strengthening transparency and accountability. The DBM's Public Financial Management Reforms Roadmap 2024–2028 similarly highlights the continuing development of results-based monitoring and performance-informed budgeting within Philippine public financial management (DBM, 2024).

For UDM, this approach means that budget proposals should explicitly state what each allocation is expected to produce. Resources for instruction, for example, could be linked to indicators such as courses offered, teaching loads delivered, student enrolment, student retention, completion, and licensure performance where applicable. Research allocations could be associated with completed studies, peer-reviewed publications, conference presentations, research grants, intellectual property, or research utilization. Student-service expenditures could be linked to the number of students served, scholarship beneficiaries, counseling interventions, health services, guidance activities, and service satisfaction. Extension resources could be related to implemented projects, communities reached, beneficiaries served, established partnerships, and documented community outcomes.

Such indicators should distinguish between outputs and outcomes. Outputs represent the immediate goods and services produced by institutional activities, while outcomes reflect the broader changes or results arising from those outputs. For example, the number of faculty development activities conducted is an output, whereas measurable improvement in teaching competence or instructional practice represents an outcome. Similarly, the number of research projects completed is an output, while increased research utilization, citation impact, policy contribution, or community application represents a higher-level outcome. Distinguishing these levels would prevent the university from treating activity completion alone as evidence of institutional effectiveness.

A third strategy is to strengthen budget execution monitoring by reporting appropriations, allotments, obligations, disbursements, and balances separately. One of the principal limitations identified in the study is that the available figures do not indicate which stage of the budget process they represent. Consequently, the present analysis cannot determine whether financial resources were fully utilized or whether significant balances remained unobligated or undischursed.

Future institutional financial reports should therefore include, at minimum, the approved or authorized budget, allotments received, obligations incurred, disbursements made, and remaining balances for each major program and expense category. This would permit the calculation of obligation utilization rates and disbursement rates and would enable management to identify programs with persistent under-execution. Monitoring should also examine the timing of utilization, as an allocation fully disbursed only near the end of the fiscal year may indicate implementation or procurement delays, even if the final annual utilization rate appears high.

This approach is consistent with the broader direction of Philippine public financial management reform, which emphasizes not only budget preparation but also stronger execution, monitoring, evaluation, and digital financial management systems (DBM, 2024). For UDM, linking execution information to outputs would enable management to distinguish between a program that failed to produce expected results because resources were never released or utilized, and one in which resources were fully utilized but outputs remained below target.

A fourth priority is the disaggregation and performance review of high-value MOOE categories, particularly Other Professional Services and Donations. These two categories together accounted for approximately 77%-79% of reported MOOE during the study period. Their concentration makes them financially significant, yet the current dataset does not specify which services were purchased, which programs were supported, which beneficiaries were served, or which outputs were generated.

The university should therefore require high-value MOOE items to be reported according to purpose, responsible office, program or project, beneficiary, supplier or service type where appropriate, period of engagement, expected deliverable, actual accomplishment, and associated institutional objective. For professional services, management should be able to determine whether expenditures supported academic services, information technology, technical consultancy, accreditation, research, administrative operations, facilities, or other functions. For Donations, the institution should identify the recipients, the purpose, the authority, the intended public or institutional benefit, and the measurable results.

Such disaggregation should not be undertaken merely to reduce these expenditures. The findings do not establish that either category is excessive or unnecessary. Instead, the objective is to determine whether concentrated resources are strategically justified and performance-linked. A ₱90 million professional-services allocation may represent sound financial management if it delivers critical institutional services at an appropriate cost; conversely, its effectiveness cannot be demonstrated without information on the services purchased and the outputs delivered.

A fifth strategy concerns Personnel Services planning. PS increased by 11.29% between FY 2023 and FY 2025, rising from 37.92% to 40.35% of the total reported budget. Rather than treating this increase as inherently unfavorable, the university should evaluate personnel expenditures alongside workforce composition and institutional productivity. Higher education is inherently labor-intensive, and the OECD (2025) notes that staff costs constitute a major share of tertiary education expenditure. The appropriate management question is therefore whether increases in personnel costs correspond to changes in institutional requirements and outputs.

UDM could develop a personnel expenditure and productivity dashboard integrating financial and human-resource information. Indicators could include the number of academic and nonacademic personnel, filled and vacant positions, full-time-equivalent faculty, teaching loads, student-faculty ratios, class sizes, research participation, research productivity, extension involvement, administrative transaction volume, service response times, and personnel costs per relevant unit of output. Such indicators would allow management to determine whether personnel growth is associated with expanded or improved institutional capacity.

This linkage is important because a rising PS share may reduce financial flexibility if personnel costs increase more rapidly than institutional resources. However, the significance of this trend depends on the value created by the additional expenditure on personnel. If higher PS supports greater instructional capacity, improved faculty qualifications, additional research activity, strengthened student services, or necessary institutional expansion, the increase may represent strategic investment rather than financial rigidity.

A sixth strategy is to introduce unit-cost and activity-cost analysis for major university functions. The OECD (2025) identifies activity-based costing as a useful approach for understanding the actual costs of different higher education activities because it assigns direct and indirect costs to specific functions. For UDM, unit-cost measures could initially be developed using readily available financial and performance data rather than immediately constructing a sophisticated costing system.

Illustrative measures may include cost per enrolled student, cost per graduate, instructional cost per student credit or course where feasible, research expenditure per completed study or publication, student-service cost per beneficiary, extension expenditure per project or beneficiary, and administrative cost per transaction or service unit. Such indicators should be interpreted cautiously because educational quality

cannot be reduced to cost minimization. Nevertheless, unit-cost measures can reveal trends, identify unusually high or rising costs, and provide a basis for examining whether resource growth is accompanied by expanded outputs.

Importantly, lower cost should not automatically be equated with better performance. An institution may legitimately spend more to improve educational quality, support laboratory-intensive programs, strengthen research, or serve students with greater support needs. The OECD (2025) emphasizes that higher education costs vary according to the nature, scale, quality, and combination of activities undertaken. Unit-cost measures should therefore be evaluated alongside quality and outcome indicators rather than used solely as cost-reduction targets.

A seventh strategy is to introduce a multi-year and inflation-sensitive financial planning framework. The present study uses nominal values and covers only three fiscal years. Consequently, increases in peso allocations cannot automatically be interpreted as equivalent increases in real purchasing power. Future financial analysis should present both nominal and, where feasible, inflation-adjusted expenditure trends. This would help management determine whether operating resources are actually expanding in real terms or whether nominal increases are primarily compensating for higher prices.

Medium-term financial planning could also project expected personnel, utility, maintenance, technology, contractual, and other cost pressures over a three- to five-year horizon. Scenario analysis could estimate the implications of alternative assumptions regarding enrolment, compensation, inflation, staffing, technology investment, and major contractual obligations. This is particularly important given the study's finding that PS is growing faster than MOOE. Forward projections could determine whether continuation of this pattern would constrain operating resources and identify when corrective planning may become necessary.

An eighth strategy is to establish an integrated institutional financial and performance dashboard. Financial data should not remain separate from academic and operational performance information. A dashboard could combine budget allocation, obligation, disbursement, expenditure concentration, cost indicators, and performance measures for teaching, research, student services, extension, and administration. Each major program could display the allocated budget, percentage utilized, targeted outputs, achieved outputs, observed outcomes, and significant variances.

For example, a research program dashboard could report its annual allocation, obligation rate, number of projects funded, projects completed, publications generated, external funding secured, and research utilization. A student-support dashboard could report on allocated and utilized funds, along with the number of beneficiaries, service coverage, completion rates, and relevant student outcomes. This type of integrated reporting would enable university leaders to examine financial performance and institutional performance simultaneously.

The DBM's current public financial management reform direction supports this type of integrated results orientation. The PFM Reforms Roadmap 2024–2028 identifies performance indicators, monitoring of program progress alongside budget releases, and stronger results-based monitoring and evaluation among ongoing reform priorities (DBM, 2024). At the institutional level, a similar approach would allow UDM to identify not merely whether resources were spent but whether expected outputs were delivered.

A ninth strategy is to institutionalize periodic budget and performance reviews. Linking resources to results should not occur only during annual budget preparation. Academic and administrative units should periodically review financial execution and performance indicators during the fiscal year. Quarterly or semester-based reviews could compare planned allocations, actual obligations and disbursements, output targets, actual accomplishments, emerging risks, and projected year-end performance.

Such reviews could use a simple variance framework. A unit that has utilized 80% of its annual allocation but achieved only 40% of its output target would require examination, as would a unit that has achieved

most of its target while using considerably fewer resources than expected. The purpose should not be an automatic reward or sanction, but rather a managerial diagnosis: identifying procurement delays, unrealistic targets, changes in demand, inefficient processes, resource shortages, or opportunities for reallocation.

A tenth strategy is to strengthen data governance and accountability for financial-performance information. The quality of performance-informed budgeting depends on reliable data. Each financial and performance indicator should therefore have a clear definition, source, responsible office, reporting frequency, calculation method, and verification procedure. Financial records from accounting and budget offices should be reconciled with accomplishment data from academic and administrative units. This would reduce the risk of inconsistent reporting and ensure that management decisions are based on comparable information.

These strategies support an institutional transition from expense-centered financial reporting toward performance-linked financial management. The current financial data primarily answer the question: How much was allocated, *and under what economic classification*? A stronger system should progressively answer additional questions, such as: *For what program or function was the resource allocated? How much was actually obligated and disbursed? What outputs were delivered? What outcomes were achieved? What did those outputs cost? Were the results consistent with institutional priorities?*

A useful results chain for UDM financial management may therefore be expressed as:



Figure 1. UDM Financial Management Results Chair

Under this approach, financial management becomes a continuous feedback process rather than a once-a-year allocation exercise. Performance information from one fiscal period can inform resource allocation in subsequent periods, allowing university management to strengthen high-performing programs, address implementation constraints, reconsider poorly performing expenditures, and respond to emerging academic and institutional priorities.

Overall, the findings support adopting a performance-informed, functionally transparent, and evidence-based financial management framework at Universidad de Manila. The most important strategy is not the indiscriminate reduction of Personnel Services or MOOE, but an improved understanding of what these expenditures support and what they produce. Program-level costing, performance indicators, budget-execution monitoring, disaggregation of major expenditure categories, personnel productivity analysis, unit-cost measures, inflation-sensitive planning, integrated dashboards, and periodic performance reviews would collectively strengthen the connection between financial inputs and institutional results.

Such an approach is consistent with Philippine public financial management reforms that seek to make budget allocation increasingly results-oriented (DBM, 2023, 2024) and with contemporary higher education

finance literature emphasizing that sustainable financial management requires institutions to understand the costs of their activities, determine which outputs matter, and adjust resources and activities when institutional objectives and available resources become misaligned (OECD, 2025). For Universidad de Manila, strengthening these linkages would provide a more defensible foundation for future judgments concerning institutional priorities, budget utilization, financial flexibility, and efficiency

CONCLUSIONS

The analysis of Universidad de Manila's reported financial data from FY 2023 to FY 2025 indicates a generally stable nominal resource envelope with a gradual shift in expenditure composition toward Personnel Services. The total reported budget declined slightly in FY 2024, then increased in FY 2025, resulting in a net nominal increase of 4.58% over the three-year period. This pattern suggests modest budgetary growth rather than sustained rapid expansion. However, because the figures are expressed in nominal terms and were not adjusted for inflation, the observed increase should not be interpreted automatically as an equivalent improvement in the university's real purchasing power.

A more significant finding concerns the changing balance between Personnel Services and Maintenance and Other Operating Expenses. Personnel Services increased from ₱160.92 million in FY 2023 to ₱179.08 million in FY 2025, equivalent to an increase of 11.29%, while its share of the reported total budget rose from 37.92% to 40.35%. MOOE, in contrast, increased by only 0.48% over the same period and declined as a share of total from 62.08% to 59.65%. The principal compositional change was therefore the growing weight of personnel-related expenditure relative to operating resources. This trend does not, by itself, indicate inefficiency, but it suggests that personnel commitments are expanding more rapidly than operating resources and may warrant continued monitoring of staffing needs, workload, service demand, and institutional outputs.

Within Personnel Services, the expenditure structure was highly concentrated in salaries and related employee obligations. Salaries and Wages consistently accounted for approximately 67% to 69% of PS, while Salaries and Wages, Bonus–Civilian, RLIP, and PhilHealth together represented approximately 88% to 90% of total Personnel Services. The data therefore show that most personnel expenditure was concentrated in compensation and statutory or employment-related commitments. At the same time, the declining combined share of the listed PS items in FY 2025 suggests that other personnel-related categories not separately identified in the available data grew more rapidly during the final year of the analysis.

MOOE exhibited a similarly concentrated structure. Other Professional Services and Donations together accounted for 78.78% of MOOE in FY 2023, 79.01% in FY 2024, and 77.06% in FY 2025. The five listed MOOE categories collectively accounted for approximately 85% to 87% of reported MOOE over the period. These findings demonstrate substantial concentration within operating expenditure, but the institutional significance of this pattern cannot be determined from the financial labels alone. The available data do not identify the specific beneficiaries, contractual purposes, programs, or institutional functions associated with the largest MOOE categories. Therefore, these expenditures cannot be characterized defensibly as academic, administrative, student-centered, noncore, or inefficient without further program-level information.

The concentration observed in both Personnel Services and MOOE has possible implications for financial flexibility. A large proportion of PS is associated with recurring personnel-related obligations, while a substantial share of MOOE is concentrated in a small number of high-value categories. Such concentration may reduce the proportion of resources that can be readily redirected toward emerging priorities if the dominant expenditure items are fixed, recurring, contractual, or otherwise difficult to adjust. However, the present data do not establish the degree to which the major MOOE categories are discretionary or committed. Accordingly, expenditure concentration should be treated as a financial planning signal rather than as direct evidence of rigidity or misallocation.

The study further concludes that the available data are insufficient to determine institutional priorities with precision. PS and MOOE are economic expense classifications and do not identify the functional purpose

of expenditures. Without information on program, project, activity, cost center, organizational unit, beneficiary, or strategic objective, the relative size of an expense class cannot indicate whether the university is prioritizing teaching, research, student services, extension, administration, information technology, or other institutional functions. A stronger interpretation of institutional priorities requires financial reporting that connects economic classifications with the specific purposes and beneficiaries of expenditure.

The study also concludes that the reported figures do not permit a valid assessment of budget utilization. The available records do not establish whether the amounts represent appropriations, allotments, obligations, disbursements, or actual expenditures. Since these represent different stages of the public budgeting and expenditure process, the reported amounts cannot be used interchangeably. In the absence of clearly identified budget authority and execution data, obligation and disbursement utilization rates cannot be calculated. Thus, the study can describe reported allocations but cannot determine whether the resources were fully or efficiently utilized during each fiscal year.

Similarly, the available financial data do not provide a defensible basis for determining institutional efficiency. Efficiency requires the relationship between financial or other inputs and measurable institutional outputs or outcomes. The present dataset does not include corresponding information on enrolment, graduates, teaching workload, research productivity, student-service coverage, extension outputs, administrative service delivery, or other institutional results. Consequently, the observed expenditure patterns cannot establish whether UDM became more or less efficient during the study period. The findings are sufficient to describe allocation patterns and expenditure concentration but not to estimate technical, allocative, cost, or overall institutional efficiency.

Taken together, the findings indicate that the principal financial management issue is not simply whether Personnel Services or MOOE should be increased or reduced. The more important concern is whether resources are transparently linked to institutional functions, properly executed, and associated with measurable outputs and outcomes. The study therefore supports the adoption of a more integrated financial management framework in which allocations are mapped to programs and cost centers, high-value expenditure categories are disaggregated by purpose and beneficiary, appropriations and execution data are reported separately, and financial inputs are linked with performance indicators across teaching, research, student services, extension, administration, and institutional development.

A useful direction for the university is to institutionalize a results-oriented financial management cycle consisting of Resource Allocation → Budget Execution → Institutional Activity → Output → Outcome → Performance Review → Resource Reallocation. Such a framework would allow financial decisions to be informed not only by historical spending patterns but also by evidence on what programs actually deliver. In this way, succeeding budget decisions could be based more explicitly on institutional performance, emerging needs, and strategic priorities.

The study concludes that Universidad de Manila's FY 2023 to FY 2025 financial data reveal modest nominal budget growth, rising personnel-related commitments, and a substantial concentration in major PS and MOOE categories. These patterns are important for financial planning but do not, by themselves, demonstrate misallocation, poor utilization, or inefficiency. The current reporting structure is adequate for describing the economic composition of financial resources but insufficient to determine whether expenditures are strategically aligned, fully utilized, or productive. Strengthening program-level disaggregation, execution monitoring, inflation-sensitive analysis, and performance-linked budgeting would provide the university with a more reliable basis for evaluating financial sustainability, flexibility, accountability, and institutional performance.

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Socio-Political Engagement Among Universidad de Manila Students: Patterns, Perceived Motivators, and Demographic Differences

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ABSTRACT

This study examined socio-political engagement among undergraduate students of Universidad de Manila and assessed the perceived conditions associated with their participation. Using a descriptive-correlational, cross-sectional survey design, data were obtained from 496 students representing six academic colleges. The study measured traditional, digital, and organizing forms of socio-political involvement together with four perceived motivating conditions: Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. Results showed slight involvement across all three modalities, with digital engagement obtaining the highest composite mean ($M = 2.59$), followed by traditional engagement ($M = 2.18$) and organizing engagement ($M = 2.11$). Students generally agreed that Cause ($M = 2.81$), Government Weakness ($M = 2.78$), Outside Assistance or Support ($M = 2.62$), and Leadership Influence ($M = 2.57$) were relevant conditions associated with participation. A strong positive relationship was found between the aggregated perceived motivating-condition score and socio-political involvement, $r(494) = .685$, $p < .001$. Significant omnibus differences were reported across academic programs and year levels, while age, sex at birth, and academic status showed no significant differences. However, the submitted regression model treated the four predictor constructs as categorical contrasts, limiting interpretation of their independent effects. The findings indicate modest but differentiated socio-political engagement, with greater participation through digital and discussion-oriented activities. The study recommends reanalysis using validated composite measures, full regression diagnostics, appropriate post hoc tests, and strengthened ethical safeguards for politically sensitive student data. These results provide institutional evidence for nonpartisan civic education, responsible student development, and privacy-conscious approaches to understanding youth participation.

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INTRODUCTION

Political and civic participation among university students encompasses a broad range of behaviors through which young people express views, respond to public issues, engage with institutions, and participate in collective action. These activities may include political discussion, petition signing, membership in civic or political organizations, participation in community forums, advocacy campaigns, demonstrations, electoral activities, and various forms of digitally mediated engagement. Contemporary student participation should therefore not be understood solely in terms of highly visible activities such as rallies or street demonstrations. Rather, political engagement increasingly occurs across a continuum of conventional, collective, organizational, and digital practices, with individuals moving between different forms of participation depending on the issue, available resources, perceived risks, social networks, and opportunities for involvement.

The increasing importance of digital media has further expanded the repertoire of youth political participation. Social networking platforms enable users to obtain political information, discuss public issues,

circulate advocacy materials, sign petitions, organize campaigns, connect with like-minded individuals, and mobilize support across geographic boundaries. Boulianne and Theocharis (2020), in a meta-analysis of 106 survey-based studies on young people and digital media, found that politically oriented uses of digital media were positively associated with civic and political engagement. Importantly, their findings indicate that online political participation does not necessarily displace offline engagement. Instead, activities such as consuming political news, engaging in online political discussions, and participating in digital advocacy may complement more conventional forms of civic and political involvement. Political participation among contemporary youth is therefore increasingly characterized by the interaction of online and offline forms of engagement.

This transformation is particularly relevant in the Philippine context, where social media occupies a prominent place in political communication, information exchange, advocacy, and public debate. Marcaida (2020), in a mixed-methods study of Filipino college students, found that using social media as a source of political news was associated with participation in digital activism. The study also observed that digital forms of participation generally required fewer resources and less physical effort than traditional protest activities, making them potentially more accessible to students who may not participate in street-based activism. These findings suggest that variations in the intensity or visibility of participation should not automatically be interpreted as political indifference.

More recent Philippine evidence further demonstrates that digital platforms have become important components of youth activism. Agojo et al. (2023) found that young Filipino activists use social media to communicate political information, broaden the reach of advocacy, develop networks, and sustain political engagement beyond physical spaces. Their study emphasizes that social media has altered how activism is organized and communicated, while also acknowledging the limitations and risks associated with digital participation. Consequently, online activities such as sharing advocacy materials, discussing policies, participating in digital campaigns, or supporting online petitions should not automatically be dismissed as slacktivism. Their significance depends on the purpose, context, and relationship of digital practices to broader forms of political and civic engagement.

Political participation is also influenced by the social environments in which students are embedded. Universities can expose students to new ideas, organizations, peer networks, public issues, and opportunities for collective participation. Crossley (2008) demonstrated that social networks formed within university settings can have a politicizing effect by connecting students with individuals and organizations that facilitate participation. This perspective is relevant to the study of university students because political involvement may emerge not only from pre-existing attitudes but also from interactions with peers, student organizations, academic environments, and broader networks encountered during university life.

Philippine research likewise suggests that youth participation is shaped by experiences of political socialization and perceptions of political institutions. Bautista (2021), examining Filipino youth participation in the context of the Sangguniang Kabataan, demonstrated that institutional experiences and perceptions can influence how young people understand and engage with formal political structures. Such evidence underscores the complexity of youth political participation: dissatisfaction with institutions may motivate some individuals to engage, while political cynicism, mistrust, or perceptions of limited efficacy may lead others to withdraw. It is therefore inappropriate to assume that dissatisfaction automatically translates into greater activism or that limited observable participation necessarily indicates apathy.

The complexity of political participation is further explained by theories of collective action. Resource Mobilization Theory emphasizes that collective action depends not only on grievances or dissatisfaction but also on access to organizations, leadership, networks, material resources, communication structures, and external support (McCarthy & Zald, 1977). Individuals may share similar concerns yet differ in their capacity to participate because opportunities and resources for collective action are distributed unevenly. From this perspective, leadership structures and outside assistance can facilitate participation by providing coordination, information, social connections, logistical support, and opportunities for involvement.

Social psychological approaches complement this organizational perspective by examining the motivational processes underlying participation. Van Zomeren et al. (2008), through a quantitative synthesis of collective-action research, identified perceived injustice, collective efficacy, and social identity as important and distinct processes associated with collective action. Their Integrative Social Identity Model of Collective Action suggests that participation becomes more likely when individuals perceive injustice, believe collective action can produce meaningful results, and identify with groups connected to the issue. These processes illustrate why personally meaningful causes, perceptions of institutional shortcomings, social relationships, and opportunities for collective participation may operate together rather than independently.

Drawing from these perspectives, the present study examines socio-political engagement among undergraduate students of Universidad de Manila (UDM) through three modalities of self-reported participation: traditional engagement, digital engagement, and organizing engagement. Traditional engagement includes more physically situated forms of participation such as rallies, community forums, and distribution of advocacy materials. Digital engagement encompasses political expression and participation mediated through online platforms, while organizing engagement involves leadership, recruitment, logistical coordination, and educational activities associated with collective action. Examining these modalities separately allows the study to capture differences in how students participate rather than reducing socio-political involvement to a single form of activism.

The study further examines four perceived conditions that students may associate with participation: Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. Cause broadly refers to the perceived importance of issues, values, social justice, and human rights concerns. Leadership Influence concerns perceptions of the credibility, organization, and role of movement leadership. Government Weakness reflects perceptions concerning transparency, accountability, responsiveness, and institutional performance, while Outside Assistance or Support refers to external networks, resources, and opportunities that may facilitate participation. These constructs correspond conceptually with selected elements of collective-action and resource-mobilization perspectives, but they are treated as study-specific constructs rather than assumed to be equivalent to established, validated theoretical dimensions.

Examining these conditions is important because endorsing potential motivation is analytically distinct from actual participation. A student may agree that social injustice or lack of government accountability can motivate activism without personally becoming highly involved. Similarly, students may recognize leadership, external support, or social networks as important to political participation without these factors independently predicting their own behavior. The present study therefore distinguishes between perceived motivating conditions, statistical association, and independent prediction, particularly because the cross-sectional design does not permit causal conclusions.

The study is institutionally relevant because understanding the forms and conditions of student socio-political engagement can inform civic education, student development, media and information literacy, democratic dialogue, and responsible institutional engagement with student organizations. Universities provide important spaces where students encounter diverse perspectives, develop civic identities, deliberate on public issues, and learn how to engage in democratic participation responsibly. Evidence concerning student engagement may therefore help institutions create opportunities for informed, nonpartisan civic learning without directing students toward particular political positions.

At the same time, research involving political attitudes and activism requires heightened attention to research ethics, privacy, and student autonomy. Political participation is sensitive personal information, and students should not be identified, profiled, monitored, or disadvantaged because of lawful political beliefs or activities. Institutional research on student engagement should therefore rely on voluntary participation, appropriate informed consent, confidentiality or anonymity protections, and aggregate reporting. Within these boundaries, the present study seeks to provide an evidence-based account of socio-political engagement among UDM students by examining the forms of participation they engage in, the conditions they perceive as relevant to participation, the associations between these perceptions and involvement, and possible demographic differences in engagement.

STATEMENT OF THE PROBLEM

Socio-political engagement among university students may take different forms, ranging from participation in face-to-face civic and political activities to digitally mediated advocacy and organizational involvement. Understanding these forms of engagement is important because students may participate differently depending on the issues they consider important, the influence of leaders and social networks, their perceptions of government institutions, and the availability of external support or opportunities for collective action.

At Universidad de Manila, there is a need to document the extent and forms of students' socio-political engagement and to examine the conditions that students perceive as associated with their participation. In particular, it is important to distinguish traditional forms of engagement from digital and organizing activities because contemporary youth participation may occur through multiple channels and should not be assessed solely on the basis of highly visible forms of activism.

The study also seeks to examine whether students' perceptions regarding cause-related motivation, leadership influence, government weakness, and outside assistance or support are associated with their level of socio-political involvement. Since these factors represent conceptually distinct conditions, their relationships with engagement should be examined separately and collectively using an appropriately specified multivariable model. In addition, differences in socio-political involvement across demographic groups may provide further insight into how engagement varies among university students.

Accordingly, this study seeks to describe the patterns of socio-political engagement among undergraduate students of Universidad de Manila and examine the perceived conditions and demographic characteristics associated with such engagement.

Specifically, the study sought to answer the following research questions:

1. What is the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 sex at birth;
 - 1.3 academic program;
 - 1.4 year level; and
 - 1.5 current academic status?
2. What is the level of students' self-reported socio-political involvement in terms of:
 - 2.1 traditional engagement;
 - 2.2 digital engagement; and
 - 2.3 organizing engagement?
3. What is the level of students' perceived agreement with the following possible conditions associated with socio-political participation:
 - 3.1 cause-related motivation;
 - 3.2 leadership influence;
 - 3.3 government weakness; and
 - 3.4 outside assistance or support?
4. Is there a significant relationship between students' perceived motivating conditions and their level of socio-political involvement?
5. To what extent do cause-related motivation, leadership influence, government weakness, and outside assistance or support independently explain variation in students' socio-political involvement when examined simultaneously in an appropriately specified multivariable model?
6. Is there a significant difference in students' socio-political involvement when grouped according to profile?

METHODOLOGY

The study employed a descriptive-correlational, cross-sectional survey design to examine socio-political engagement among undergraduate students of Universidad de Manila. The descriptive component was used to characterize respondents according to selected demographic variables and to summarize their self-reported involvement in traditional, digital, and organizing forms of socio-political engagement. It also described students' perceptions of four possible motivating conditions associated with participation, namely Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. The correlational component examined the statistical association between these perceived motivating conditions and students' reported level of socio-political involvement, while group-comparison procedures were used to determine whether engagement differed across selected demographic characteristics. Because the study was observational and cross-sectional, the results can establish patterns, associations, and group differences but cannot demonstrate causal relationships. Accordingly, terms such as effect, influence, determines, or drives should be interpreted cautiously unless supported by an appropriate causal research design.

The study involved 496 undergraduate students representing six academic colleges of Universidad de Manila. The source manuscript states that proportional quota sampling was used to obtain representation across the participating academic units. However, the total eligible undergraduate population, the basis for determining the overall sample size, the computation of the proportional quotas, and the number of respondents assigned to each sampling stratum were not reported. Information regarding the recruitment procedure, inclusion and exclusion criteria, number of students invited, response rate, and period of data collection was likewise unavailable in the source documentation. These details are necessary for assessing the adequacy of the sampling process, the extent to which the sample reflects the underlying student population, and the possibility of selection or nonresponse bias. Consequently, although the sample includes students from multiple academic programs and year levels, the representativeness of the 496 respondents cannot be fully assessed based on the available information.

Data were collected using a researcher-developed questionnaire consisting of demographic items, socio-political involvement measures, and perceived motivating-condition measures. The socio-political involvement component contained 12 items organized into three modalities: traditional engagement, digital engagement, and organizing engagement. Traditional engagement included physical demonstrations, distribution of advocacy materials, community forums, and mobilization efforts. Digital engagement included sharing advocacy content, participating in online discussions, signing online petitions or digital campaigns, and creating original advocacy content. Organizing engagement included leadership roles, logistical mobilization, recruitment, and facilitation of educational or advocacy activities.

The involvement items were measured on a five-point scale ranging from 1 (Not Involved at All) to 5 (Very Highly Involved). A separate set of 16 items measured the four perceived motivating constructs: Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. These items used a four-point agreement scale. The Cause construct encompassed issue-related and value-based considerations, including social justice and human rights concerns. Leadership Influence reflected perceptions regarding movement leadership and organizational credibility. Government Weakness represented perceptions of transparency, accountability, responsiveness, and institutional performance, while Outside Assistance or Support addressed external networks, resources, and opportunities that may facilitate participation.

The source manuscript reports that the instrument underwent face validation, content validation, and pilot testing. However, important details concerning these procedures were not documented. The number and qualifications of the validators, the criteria used to evaluate the items, the pilot-test sample size, the revisions undertaken after pilot testing, and evidence of construct validity were not reported. Reliability coefficients were also not provided for the Traditional, Digital, Organizing, Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support subscales. Because these dimensions consist of multiple items and were subsequently used to generate composite measures, an appropriate internal-consistency estimate, such as Cronbach's alpha or another defensible reliability coefficient, should be

reported for each subscale before composite scores are interpreted in correlational or multivariable analyses. The lack of reported psychometric evidence limits the extent to which the instrument's internal consistency and construct quality can currently be evaluated.

For data analysis, frequencies and percentages were used to summarize respondents' demographic characteristics, including age, sex at birth, academic program, year level, and academic status. Means were used to describe students' level of involvement across the traditional, digital, and organizing modalities and their level of agreement with the four perceived motivating conditions. The use of descriptive statistics provided an overview of the distribution and relative prominence of the measured forms of socio-political engagement and perceived motivational conditions.

A Pearson product-moment correlation was reported to examine the relationship between an aggregated perceived-predictor score and overall socio-political involvement. However, combining Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support into a single score obscures the separate associations between each conceptually distinct construct and socio-political involvement. A more informative analysis would report individual zero-order correlations between each construct and the outcome before proceeding to a multivariable model.

The source manuscript also reports a multiple regression analysis intended to examine whether the four proposed predictor constructs independently explain variation in socio-political involvement. However, the submitted regression output indicates that the constructs were entered as categorical contrasts rather than as continuous composite measures, despite the instrument describing them as multi-item Likert-type constructs. Consequently, the reported coefficients cannot presently be interpreted as conventional standardized effects of the four predictor scales. The basis for categorizing these variables should therefore be documented and justified. If psychometric evidence supports the formation of continuous composite scores, the regression model should be re-estimated using those scores and accompanied by the appropriate model diagnostics.

Demographic group differences were examined using independent-samples *t* tests and Welch's analysis of variance. The *t* tests were used for variables consisting of two groups, whereas Welch's ANOVA was reported for demographic characteristics involving more than two groups. For statistically significant omnibus comparisons, appropriate post hoc procedures should be reported to determine which specific groups differ. This is especially important for academic program and year level, where an omnibus significant result alone does not identify the groups responsible for the observed difference. Group means, confidence intervals, effect sizes, and post hoc comparisons should therefore accompany the inferential findings.

Several analytical details were not reported in the source documentation and should be specified before final publication. These include the statistical software and version used, treatment of missing data, scoring and coding procedures, assumption checks, confidence intervals, effect-size measures, multicollinearity assessment, regression residual diagnostics, and post hoc procedures. Their inclusion would strengthen transparency, reproducibility, and the interpretability of the statistical findings.

Because socio-political attitudes and participation constitute politically sensitive information, ethical and privacy safeguards are also essential to the methodology. The available manuscript does not state whether formal ethics clearance or institutional authorization was secured, how informed consent was obtained, whether participation was voluntary and anonymous, how confidentiality was maintained, or how the research data were stored and protected. These procedures should be explicitly documented in the final manuscript. In particular, reporting should ensure that individual students cannot be identified, monitored, profiled, or disadvantaged because of lawful political beliefs, expressions, or activities.

The methodology provides an appropriate framework for describing socio-political engagement and examining statistical associations among the measured variables. Nevertheless, the credibility of the inferential findings depends on fuller documentation of the sampling process, the psychometric properties of the researcher-developed instrument, the analytical procedures, the regression specification, the demographic post hoc comparisons, and the ethical safeguards. Until these details are established, the

findings should be interpreted principally as descriptive and correlational evidence rather than causal explanation of student socio-political engagement.

RESULTS AND DISCUSSION

Respondents Profile

Table 9. Demographic Profile of the Respondents

Variable	Category	n	%
Age	18-20	293	59.1
	21-23	179	36.1
	24-26	21	4.2
	26 and above	3	0.6
Sex at birth	Female	265	53.4
	Male	231	46.6
Academic program	College of Arts and Sciences	68	13.7
	College of Business and Public Management	95	19.2
	College of Computing Studies	89	17.9
	College of Criminal Justice	69	13.9
	College of Education	86	17.3
	College of Health and Sciences	89	17.9
Year level	1st year	109	22.0
	2nd year	185	37.3
	3rd year	144	29.0
	4th year	57	11.5
	5th year	1	0.2
Academic status	Good status	465	93.8
	Warning status	31	6.3

Table 1 presents the demographic profile of the 496 undergraduate students who participated in the study. The respondents were described according to age, sex at birth, academic program, year level, and current academic status. Overall, the sample was composed predominantly of students aged 18–23, was relatively balanced by sex at birth, represented six academic colleges, was concentrated in the second and third years of study, and consisted largely of students in good academic standing. These characteristics provide important context for interpreting the subsequent findings on socio-political engagement but should not, by themselves, be taken as evidence that particular demographic groups are more or less politically involved.

By age, 293 respondents (59.1%) were 18–20 years old, while another 179 (36.1%) were 21–23 years old. Taken together, 95.2% of the respondents were between 18 and 23 years of age, indicating that the study primarily represents students within the developmental period commonly associated with emerging adulthood and early participation in formal civic and political processes. Only 21 respondents, or 4.2%, were 24–26 years old, while 3 respondents, or 0.6%, were 26 years old or older.

The predominance of younger respondents is particularly relevant to the study because contemporary political participation among Filipino youth increasingly occurs through a combination of interpersonal, conventional, and digitally mediated channels. Ladia and Panao (2024), in their study of Filipino undergraduate students during the 2022 Philippine presidential elections, found that political knowledge, interest, efficacy, and pandemic-related experiences were associated with different forms of offline, interpersonal, and online political participation. More recently, Ladia (2025) demonstrated that political socialization through family, peers, schools, media, and social networks remains relevant to the political participation of Filipino university students. The age profile of the UDM respondents, therefore, places study within a population in which political attitudes and participation may be developing through continued

exposure to academic environments, peer relationships, digital communication, elections, and broader public issues.

However, the dominance of respondents aged 18–23 also limits the extent to which the findings can be generalized to older university students. The small numbers in the 24–26 and 26-and-above categories mean that estimates for these groups are based on substantially fewer observations. Consequently, later comparisons across age categories should be interpreted cautiously. A lack of statistically significant age differences, for example, should not automatically be taken as evidence that age has no relationship with socio-political engagement, particularly when some age groups contain very few respondents.

In terms of sex at birth, the sample was relatively balanced. Female respondents accounted for 265, or 53.4%, of the sample, while male respondents comprised 231, or 46.6%. The difference between the two groups was only 6.8 percentage points, suggesting that the overall findings are not overwhelmingly derived from respondents of one sex. This balance is useful for subsequent comparative analysis because both groups are represented in substantial numbers.

Nevertheless, the nearly balanced distribution should not be interpreted as evidence that male and female students necessarily demonstrate similar patterns of socio-political participation. Philippine research suggests that gender may interact with the form and issue context of political engagement. Dayrit et al. (2022), for example, found differences in specific forms of social media political participation among young Filipino netizens, with female respondents reporting higher participation in certain gender-related political activities. Their study also demonstrated that digital competence and the ways young people use online platforms may be important alongside demographic characteristics. Thus, sex at birth should be considered one possible contextual variable rather than presumed to determine political engagement.

The academic program distribution indicates that the sample included students from six colleges, providing relatively broad disciplinary representation. The College of Business and Public Management contributed the largest number of respondents, at 95 (19.2%). This was followed by the College of Computing Studies and the College of Health and Sciences, with 89 respondents each (17.9%), the College of Education with 86 (17.3%), the College of Criminal Justice with 69 (13.9%), and the College of Arts and Sciences with 68 (13.7%).

The spread across academic programs is analytically relevant because university experiences can function as important settings for political socialization. Students encounter different disciplinary perspectives, curricular content, professional orientations, peer networks, student organizations, and public issues, depending in part on their academic environments. Ladia (2025) emphasizes that the political participation of Filipino university students is shaped by socialization processes involving schools, peers, families, media, and social capital. It is therefore reasonable to examine whether socio-political involvement varies across academic programs.

The distribution according to year level was more uneven. Second-year students constituted the largest group, with 185 respondents (37.3%), followed by third-year students with 144 (29.0%). First-year students accounted for 109 respondents or 22.0%, while fourth-year students comprised 57 or 11.5%. Only *one* fifth-year student, representing 0.2% of the entire sample, was included.

Second- and third-year students accounted for 66.3% of respondents, indicating that the findings are particularly representative of students in the middle stages of their undergraduate education. This may be relevant because continued exposure to university environments can broaden students' opportunities to interact with peers, organizations, public issues, curricular experiences, and civic activities. Philippine research on university political socialization underscores that interpersonal relationships and social capital within and beyond university settings can shape traditional, interpersonal, and online participation (Ladia, 2025). The year-level distribution therefore provides an appropriate basis for exploring whether socio-political involvement varies across stages of study.

The single fifth-year respondent, however, presents a substantial statistical limitation for subsequent year-level comparisons. A group containing only one observation cannot provide a meaningful estimate of within-

group variability and cannot support a stable comparison with the much larger first- through fourth-year groups. Accordingly, the fifth-year category should be reviewed before inferential analysis. Depending on the academic and methodological justification, the authors may need to determine whether the case should be excluded from the year-level comparison, combined with another defensible category, or otherwise handled transparently. Any regrouping must be reported explicitly and should not be undertaken simply to produce a desired statistical result.

The respondents were also overwhelmingly classified as being in good academic status, accounting for 465 students (93.8%), compared with only 31 in warning status (6.3%). This distribution indicates that the subsequent findings concerning socio-political engagement predominantly represent students who were academically in good standing at the time of data collection. The small warning-status group does not prevent statistical comparison, but the substantial imbalance in group sizes should be considered when interpreting differences.

Academic status may be relevant as a contextual characteristic because student engagement occurs alongside academic responsibilities and broader university experiences. However, there is no basis in Table 1 for assuming that academic standing predicts political participation. Political and civic engagement among Filipino students has been shown to be influenced by multiple factors, including political efficacy, social capital, political knowledge, digital media use, and opportunities for participation, rather than by a single demographic characteristic (Ladia & Panao, 2024). Accordingly, the relationship between academic status and socio-political engagement should be determined empirically through appropriate comparative analysis rather than inferred from the distribution of profiles.

More broadly, the demographic characteristics demonstrate why student socio-political engagement should not be understood through a monolithic conception of youth. Even within a single university, students differ in age, academic discipline, stage of study, academic standing, social networks, digital practices, and experiences of political socialization. Philippine research increasingly reflects this complexity. Agojo et al. (2023) showed that young Filipino activists use social media in different ways to communicate information, connect with wider audiences, and sustain advocacy, while Ladia and Panao (2024) found that different political attitudes were associated with different modes of youth political participation. Dayrit et al. (2022) likewise demonstrated that demographic and digital characteristics can be related differently to particular forms of political engagement. These studies support examining demographic characteristics as contextual variables while avoiding assumptions that membership in a particular group automatically leads to higher or lower activism.

Table 1 indicates that the sample is characterized by a predominantly young student population, a near-balance between female and male respondents, representation from six academic colleges, a strong concentration in the second and third years of study, and a predominance of students in good academic standing. These characteristics provide an appropriate descriptive foundation for interpreting the study's subsequent findings. Nevertheless, the uneven distribution across certain categories, particularly age, year level, and academic status, requires caution in group comparisons. Most importantly, the demographic profile should not be used independently to characterize particular students or groups as politically active, disengaged, or predisposed toward activism. Such conclusions require direct analysis of the measured socio-political involvement variables and appropriate inferential evidence.

Level of Students' Self-Reported Socio-Political Involvement

Table 10. Self-Reported Socio-Political Involvement

Modality	Indicator	Mean	Rank within modality	Interpretation
Traditional	Attending physical rallies or street demonstrations	2.0	4	Slightly Involved
	Distributing physical educational materials	2.25	2	Slightly Involved

Digital	Participating in face-to-face community forums	2.41	1	Slightly Involved
	Joining student-led walkouts or mobilization activities	2.05	3	Slightly Involved
	Composite mean	2.18		Slightly Involved
	Sharing socio-political advocacy content on social media	2.86	1	Moderately Involved
	Signing online petitions or joining digital awareness campaigns	2.51	3	Slightly Involved
	Engaging in online discussions regarding government policies	2.71	2	Moderately Involved
Organizing	Creating original digital advocacy content	2.28	4	Slightly Involved
	Composite mean	2.59		Slightly Involved
	Taking a leadership role in a student-led advocacy group	2.18	1	Slightly Involved
	Planning or mobilizing logistics for protest or social action	2.05	4	Slightly Involved
	Recruiting students to socio-political organizations	2.06	3	Slightly Involved
	Facilitating educational discussions or orientations	2.13	2	Slightly Involved
	Composite mean	2.11		Slightly Involved

Table 2 presents the respondents' self-reported involvement in three forms of socio-political engagement: traditional, digital, and organizing activities. All three composite means fall within the study's Slightly Involved category. Digital engagement had the highest descriptive mean at 2.59, followed by traditional engagement at 2.18 and organizing engagement at 2.11. Although this ordering suggests that respondents reported greater participation in digitally mediated activities than in face-to-face mobilization or organizing activities, the differences among the three composite means were not subjected to an inferential comparison. They should therefore be interpreted as descriptive patterns rather than statistically established differences.

The overall pattern indicates that the surveyed UDM students were not highly involved in socio-political activities, regardless of modality. However, the findings also demonstrate that low overall involvement does not mean complete disengagement. Students reported varying levels of participation depending on the type of activity, with relatively accessible forms of expression and discussion receiving higher ratings than activities that require physical presence, organizational responsibility, or sustained mobilization. This distinction is important because contemporary youth political participation increasingly occurs through differentiated and interconnected modes rather than through a single conventional form of activism. Ladia and Panao (2024), examining Filipino youth during the 2022 Philippine elections, similarly distinguished among offline, interpersonal, and online forms of political participation and found that distinct political and contextual factors were associated with each form of engagement.

Traditional Socio-Political Engagement

Traditional engagement had a composite mean of 2.18, interpreted as "Slightly Involved". Among the four indicators, participation in face-to-face community forums received the highest mean, at 2.41, followed by the distribution of physical educational materials at 2.25. Joining student-led walkouts or mobilization activities had a mean of 2.05, while attending physical rallies or street demonstrations received the lowest mean at 2.00.

The ranking suggests that respondents were somewhat more inclined toward dialogue-oriented and informational forms of face-to-face participation than toward public protest or collective mobilization. Community forums allow students to engage with public issues through discussion and exchange of ideas without necessarily assuming the visibility, time commitment, logistical demands, or perceived risks associated with street demonstrations. Similarly, distributing educational materials is an advocacy activity that can be undertaken without the same degree of public exposure as rallies or organized mobilization.

The comparatively low rating for rallies and demonstrations should not automatically be interpreted as political apathy. Participation in street-based activism generally requires greater commitment of time, physical presence, coordination, and willingness to assume potential social or political costs. Young people may support particular causes while choosing other forms of participation that they consider more feasible or appropriate. Agojo et al. (2023) observed that contemporary Filipino youth activism extends beyond physical protest spaces and increasingly incorporates digital communication and networked advocacy. Thus, limited participation in rallies does not necessarily indicate an absence of political awareness or civic concern.

The finding may also reflect the broader diversification of political repertoires among younger citizens. Rather than treating traditional participation as the benchmark against which all other forms of political engagement are measured, contemporary research increasingly recognizes that political participation occurs through multiple channels. Ladia and Panao (2024) found that Filipino youth participated through offline, interpersonal, and online activities, with different predictors operating across these forms. The UDM results similarly suggest that physical collective action represents only one component of students' broader socio-political repertoire.

Digital Socio-Political Engagement

Digital engagement received the highest composite mean among the three modalities at 2.59, although it remained within the study's overall "Slightly Involved" category. Two individual activities reached the "Moderately Involved" range: sharing socio-political advocacy content on social media, with the highest mean of 2.86, and engaging in online discussions regarding government policies, with a mean of 2.71. Signing online petitions or participating in digital awareness campaigns had a mean of 2.51, while creating original digital advocacy content had the lowest mean at 2.28.

The pattern suggests that respondents were more willing to share, discuss, and circulate existing political information than to create original advocacy material. Sharing political content generally requires less time, specialized knowledge, and public commitment than producing original material, which may involve research, message construction, graphic or video production, and greater personal identification with a political position. The results therefore indicate differing levels of participation even within the digital environment.

This finding is consistent with recent Philippine research. Velasco et al. (2024), examining political engagement among Filipino Generation Z social media users, identified multiple forms of online political participation and emphasized that digital platforms have become important spaces in which young Filipinos encounter political information, express political views, and participate in public discourse. Their findings support the interpretation that youth digital engagement is not a uniform behavior but consists of different levels and forms of participation.

The UDM pattern also parallels the findings of Agojo et al. (2023), who documented how young Filipino activists use social media to disseminate information, expand advocacy networks, communicate with broader audiences, and sustain participation beyond physical protest settings. Social media can reduce some of the spatial and logistical barriers associated with traditional activism, enabling students to participate in socio-political discussions without being physically present at collective events.

More broadly, Boulianne and Theocharis (2020), in a meta-analysis survey of 106 studies, found that politically oriented digital media activities were positively associated with civic and political participation.

Their analysis further showed strong relationships between online political actions, such as joining political groups and signing petitions, and offline participation. Consequently, the higher descriptive mean for digital engagement among UDM respondents should not be interpreted automatically as evidence of **slacktivism** or superficial participation. The present instrument measures the frequency or level of engagement in particular activities; it does not measure the sincerity, effectiveness, political impact, or depth of those activities.

The findings are therefore more appropriately interpreted as indicating that digitally mediated participation is the most accessible or most commonly reported mode of socio-political engagement among the surveyed students. Whether such digital participation leads to complements or results from offline engagement cannot be determined from the present cross-sectional data.

Organizing Engagement

Organizing activities received the lowest composite mean of 2.11, which is interpreted as “Slightly Involved”. Taking a leadership role in a student-led advocacy group had the highest mean within this modality at 2.18, followed by facilitating educational discussions or orientations at 2.13. Recruiting students to socio-political organizations received a mean of 2.06, while planning or mobilizing logistics for protests or social action received the lowest mean at 2.05.

The relatively low ratings across all organizing indicators suggest that respondents were less frequently involved in activities requiring leadership, recruitment, coordination, and sustained organizational commitment. Unlike sharing content online or participating in a discussion, organizing activities typically require greater investment of time, interpersonal coordination, planning, responsibility, and access to networks. Resource Mobilization Theory helps explain why participation at this level may be less common: collective action depends in part on organizational structures, leadership, networks, communication channels, and other resources that enable individuals to move from general support to active mobilization (McCarthy & Zald, 1977).

The slightly higher rating for taking a leadership role compared with logistical mobilization or recruitment should nevertheless be interpreted with caution, as all four means fall within a narrow range. The data establish generally low organizing involvement but do not demonstrate meaningful statistical differences among the individual activities.

The relatively low level of organizing engagement may also help explain why students can express interest in public issues without becoming highly involved in organized movements. Political discussion, content sharing, and participation in forums can occur at an individual or interpersonal level, whereas organizing requires integration into collective structures. Ladia (2025) found that social capital was important across traditional, interpersonal, and online political participation among Filipino university students, underscoring the importance of relationships and social networks in facilitating political involvement. Thus, organizational participation may depend not only on political interest but also on whether students have access to networks and opportunities that enable sustained collective engagement.

The findings reveal a descriptive progression in which digital engagement was reported more frequently than traditional engagement, whereas organizing activities were reported least frequently. This pattern is broadly consistent with the changing environment of youth political participation in the Philippines, where digital platforms increasingly provide spaces for political information, expression, discussion, advocacy, and network formation (Agojo et al., 2023; Velasco et al., 2024).

The results also suggest a possible relationship between the level of effort or commitment required by an activity and the frequency with which students report participating in it. Sharing advocacy content and discussing policies online received relatively higher ratings, while physical demonstrations, logistical mobilization, recruitment, and other organizational activities received lower ratings. This does not establish that effort or risk caused the observed differences, but it provides a plausible framework for understanding the descriptive pattern.

Recent evidence from the Philippines supports the idea that online political spaces have become increasingly relevant to university-age youth. Ladia and Panao (2024) found that the online environment served as an important arena for political articulation among Filipino undergraduate students during the 2022 elections. Velasco et al. (2024) likewise observed substantial differences in how Generation Z engages politically on social media. These studies reinforce the interpretation that digital engagement should be treated as a legitimate component of contemporary political participation rather than as an inferior substitute for conventional activism.

At the same time, the “Slightly Involved” composite interpretation across all three modalities should not be overlooked. The findings do not indicate a highly mobilized student population. Rather, they portray a student body whose socio-political participation is generally modest and selective. Students appear more willing to engage in certain forms of digital expression and political discussion than to consistently engage in physical mobilization or organizational work.

This distinction has implications for civic education and student development. Universities seeking to strengthen civic engagement should not equate civic development with encouraging particular political positions or specific forms of activism. Instead, institutions can provide nonpartisan opportunities for students to develop political and media literacy, evidence-based discussion skills, understanding of democratic processes, responsible digital citizenship, civic efficacy, and informed participation. Such approaches recognize that students may engage differently while preserving their autonomy to decide whether, how, and to what extent they participate in lawful political and civic activities.

Table 2 indicates that UDM respondents reported slight socio-political involvement across traditional, digital, and organizing modalities, with digital participation receiving the highest descriptive mean. Within digital engagement, sharing advocacy content and discussing government policies were the only indicators reaching the “Moderately Involved” category. Traditional participation was most evident in community forums, whereas organizing activities remained consistently low. The findings therefore support an interpretation of modest but differentiated socio-political engagement, characterized by comparatively greater participation in digitally mediated and discussion-oriented activities than in physical mobilization or sustained organizational work.

However, because no repeated measures or paired statistical tests were reported, the ordering of the modality means should remain descriptive. Future analysis could formally compare the three modalities and examine whether digital engagement complements traditional and organizing participation. Longitudinal research would also be useful in determining whether digitally mediated participation develops into more sustained civic or political involvement over time.

Level of Students’ Perceived Agreement with the Conditions Associated with Socio-Political Participation

Table 11. Perceived Motivating Conditions

Construct	Highest-rated indicator	Composite mean	Interpretation
Cause	Social justice and human rights concerns (M = 3.01)	2.81	Agree
Leadership Influence	Credible and organized movement leadership (M = 2.65)	2.57	Agree
Government Weakness	Lack of transparency and accountability (M = 2.89)	2.78	Agree
Outside Assistance/Support	Networking opportunities with students from other universities (M = 2.68)	2.62	Agree

Table 3 presents the respondents perceived agreement with four conditions that may be associated with socio-political participation: Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. All four constructs received an overall interpretation of Agree, with composite means ranging from 2.57 to 2.81. Cause obtained the highest composite mean at 2.81, followed closely by Government Weakness at 2.78, Outside Assistance or Support at 2.62, and Leadership Influence at 2.57. The pattern suggests that respondents generally recognized issue-related concerns, perceptions of institutional shortcomings, movement leadership, and external support as relevant conditions surrounding socio-political participation.

The findings should, however, be interpreted carefully. Agreement with a statement about what may motivate political participation is not equivalent to evidence that the condition actually caused or independently predicted students' behavior. A respondent may, for example, agree that a lack of government transparency can encourage activism while personally reporting little socio-political involvement. The results in Table 3 therefore describe students' perceptions of potentially motivating conditions, whereas their statistical relationships with actual involvement must be established separately.

Cause-Related Motivation

Among the four constructs, Cause obtained the highest composite mean of 2.81, indicating that issue-related and value-based considerations were the most strongly endorsed conditions associated with socio-political participation. The highest-rated indicator under this construct was social justice and human rights concerns, with a mean of 3.01. This suggests that respondents particularly recognized concerns involving fairness, rights, and socially significant issues as possible reasons for political or civic engagement.

The result is broadly consistent with contemporary collective-action research emphasizing the importance of perceived injustice, moral conviction, and identification with collective goals. Da Costa et al. (2023), in an integrative review of meta-analytic and systematic-review evidence on social movements and collective behavior, found that participation was associated with agreement with collective goals, perceived injustice, moral conviction, collective identity, and efficacy. Their synthesis reinforces the idea that participation is often connected to the perceived importance and moral meaning of a cause rather than to generalized political activity alone.

Szóstakowski and Besta (2024) similarly found that perceptions of injustice and group identification were important pathways linking perceived group threat with willingness to participate in collective action. These findings help explain why social justice and human rights concerns may be salient to UDM respondents. Issues framed as unfair, discriminatory, or inconsistent with personally held values may provide a stronger psychological basis for engagement than abstract political concerns.

The finding also aligns conceptually with the Social Identity Model of Collective Action, which identifies perceived injustice, collective efficacy, and social identity as important processes associated with collective action (van Zomeren et al., 2008). However, the Cause construct used in the present study is not equivalent to a validated measure of perceived injustice, moral conviction, or politicized identity. Accordingly, the result should be interpreted within the boundaries of the study's own questionnaire rather than as a direct empirical test of these established theoretical constructs.

In the Philippine context, socio-political engagement among young people is likewise frequently connected with issue-based advocacy. Agojo et al. (2023) documented how young Filipino activists use digital platforms to communicate advocacy, disseminate political information, and sustain engagement around social and political concerns. The UDM findings are consistent with this issue-oriented conception of participation, in which engagement may arise from concern about particular public problems rather than from generalized attachment to political organizations.

Government Weakness

The second-highest composite mean was for Government Weakness, at 2.78. Within this construct, the highest-rated indicator was lack of transparency and accountability, with a mean of 2.89. The result

indicates that respondents generally perceived deficiencies in transparency, accountability, responsiveness, or institutional performance as conditions that could encourage socio-political participation.

This pattern is consistent with collective-action literature showing that perceptions of injustice, deprivation, institutional dissatisfaction, and opposition to existing social arrangements can be associated with participation in collective behavior. Da Costa et al. (2023) found that perceived relative deprivation and disagreement with system-justifying beliefs were among the factors associated with participation in social movements. Similarly, van Zomeren et al. (2008) demonstrated that perceptions of injustice are important correlates of collective action, especially when these perceptions are linked to group identity and a belief that collective action can be effective.

Nevertheless, the relatively high mean for Government Weakness should not be interpreted as evidence that dissatisfaction with government automatically results in activism. Political dissatisfaction can produce different behavioral responses. Some individuals may become more engaged, while others may become cynical, withdraw, or perceive political action as ineffective. The present table establishes only that respondents generally agreed that institutional shortcomings can constitute a motivating condition.

The distinction is particularly important because the later inferential analysis in the manuscript does not provide straightforward evidence that Government Weakness independently predicts socio-political involvement. Thus, although students may recognize lack of transparency and accountability as politically relevant, the extent to which variation in this perception corresponds with actual differences in activism requires separate statistical verification.

Outside Assistance or Support

Outside Assistance or Support had a composite mean of 2.62, which is interpreted as Agree. The highest-rated indicator was networking opportunities with students from other universities, with a mean of 2.68. This result suggests that respondents recognized social networks, inter-university connections, and external support structures as potential facilitators of socio-political involvement.

This finding is consistent with Resource Mobilization Theory, which emphasizes that collective action depends not solely on grievance or ideological commitment but also on access to organizational resources, communication networks, leadership, logistical capacity, and external support (McCarthy & Zald, 1977). From this perspective, individuals may be more capable of participating when they are connected to networks that provide information, organizational opportunities, skills, material resources, or collective support.

Contemporary evidence also emphasizes the importance of networks in political mobilization. Da Costa et al. (2023) noted that social relationships and collective identity are important components of participation in social movements, while Agojo et al. (2023) demonstrated that social media enables young Filipino activists to expand networks, reach broader audiences, and sustain advocacy beyond local physical spaces. The relatively favorable UDM assessment of inter-university networking therefore corresponds with the broader idea that political participation is facilitated by access to social and organizational connections.

At the same time, agreement with Outside Assistance or Support should not be interpreted as dependence on external organizations or as evidence that outside actors directly determine student activism. The table does not identify the nature, source, or extent of such assistance, nor does it establish whether students themselves have received external support. The findings indicate only that respondents generally perceive networks and external resources as conditions that may facilitate socio-political participation.

Leadership Influence

Leadership Influence obtained the lowest composite mean at 2.57, although it remained within the Agree category. The highest-rated indicator under this construct was credible and organized movement leadership, with a mean of 2.65. This indicates that respondents recognize leadership quality and

organizational credibility as relevant to participation, although they endorsed this condition somewhat less strongly than cause-related motivation or perceptions of government weakness.

Leadership may contribute to collective action by providing direction, communicating movement goals, coordinating activities, mobilizing resources, and building confidence among potential participants. Resource Mobilization Theory identifies organizational leadership and movement infrastructure as important mechanisms through which grievances can be transformed into coordinated action (McCarthy & Zald, 1977). Leadership can therefore function as an enabling condition rather than as the sole source of political motivation.

The comparatively lower mean for Leadership Influence may suggest that respondents place somewhat greater importance on the substance of an issue than on the personalities or organizational figures associated with a movement. In other words, students may perceive participation as more strongly connected to whether a cause is meaningful or whether institutions are perceived as problematic than to leadership alone. This interpretation should remain descriptive because the differences among construct means were not formally tested.

The result may also reflect contemporary forms of digitally networked activism in which political communication and mobilization are not always centered on highly visible formal leaders. Agojo et al. (2023) demonstrated that Filipino youth activists use social media to disseminate information and expand their networks, illustrating how contemporary advocacy can occur through decentralized digital interactions as well as through formal organizational leadership. Nevertheless, credible leadership may remain important for sustaining collective organization, coordinating resources, and translating dispersed concern into more structured forms of participation.

Taken together, the findings reveal that UDM respondents generally recognized multiple and interconnected conditions as relevant to socio-political participation. Cause-related motivation received the highest descriptive assessment, followed closely by Government Weakness, while Outside Assistance or Support and Leadership Influence received somewhat lower but still favorable assessments. This pattern suggests that students do not conceptualize political participation as arising from a single source. Instead, engagement may be understood as involving a combination of issue salience, institutional dissatisfaction, social and organizational resources, and leadership conditions.

This interpretation is consistent with contemporary collective-action scholarship. Da Costa et al. (2023), synthesizing evidence across systematic reviews and meta-analyses, found that participation in collective behavior and social movements is associated with multiple factors, including agreement with collective goals, injustice, efficacy, identity, emotional responses, moral conviction, and ideological orientations. Such evidence supports a multidimensional explanation of political participation rather than a model based on a single motivating condition.

The pattern observed among UDM respondents is also conceptually consistent with van Zomeren et al. (2008), who demonstrated that perceived injustice, collective efficacy, and social identity make distinct contributions to collective action. Although the present study's four constructs do not map directly onto those validated dimensions, the findings similarly indicate that value-based, institutional, social, and organizational factors may coexist within students' perceptions of political engagement.

A particularly important result is the closeness of the Cause and Government Weakness composite means. Cause obtained a mean of 2.81, while Government Weakness obtained 2.78, a difference of only 0.03. This small descriptive difference should not be interpreted as evidence that Cause is statistically more important than Government Weakness. Rather, both constructs appear to occupy a relatively prominent position in respondents' perceptions. Similarly, the differences between Outside Assistance or Support at 2.62 and Leadership Influence at 2.57 are small and were not subjected to inferential comparison.

The findings should therefore not be used to definitively rank the four constructs as the strongest or weakest determinants of activism. Such a conclusion would require separate correlations, a correctly specified multivariable model, standardized coefficients where appropriate, and evidence that the underlying multi-

item scales are reliable and valid. The present table establishes perceived salience, not independent predictive strength.

The results also help clarify the relationship between the relatively modest socio-political involvement reported in Table 2 and the comparatively favorable endorsement of motivating conditions in Table 3. Students may recognize the legitimacy or relevance of social justice concerns, express dissatisfaction with institutional performance, leadership, and external support, yet still participate only occasionally in political activities. This illustrates an important distinction between political attitudes and political behavior. Recognition of an issue's potential to motivate participation does not necessarily translate into frequent involvement.

Such a distinction is consistent with collective-action research showing that participation usually depends on several conditions operating simultaneously. Moral concern or perceived injustice may create motivation, but actual participation may also require collective efficacy, social identity, organizational opportunity, available resources, and manageable participation costs (da Costa et al., 2023; van Zomeren et al., 2008). Thus, the modest involvement observed among UDM respondents is consistent with their agreement that specific causes or institutional concerns can motivate political action.

Overall, Table 3 demonstrates that students generally agree that cause-related concerns, perceptions of government weakness, outside assistance or support, and leadership influence are relevant conditions associated with socio-political participation. Cause-related motivation received the highest composite means, particularly social justice and human rights concerns, while lack of transparency and accountability emerged as the strongest indicator under Government Weakness. Inter-university networking was the most salient form of outside support, and credible, organized leadership was the highest-rated leadership condition.

These findings support a multidimensional view of student socio-political engagement in which participation is understood in relation to meaningful causes, perceptions of institutional performance, social networks, and organizational structures. However, the results should remain at the level of perceived agreement until subsequent statistical analyses establish whether, and to what extent, each construct is actually associated with, or independently explains, variation in students' self-reported involvement.

Significant Relationship between Students' Perceived Motivating Conditions and their Level of Socio-Political Involvement

Table 12. Association Between Aggregated Perceived Predictors and Involvement

Association	r	df	p
Aggregated perceived-predictor score × socio-political involvement	.685	494	< .001

Table 4 presents the relationship between the aggregated perceived motivating-condition score and students' level of self-reported socio-political involvement. The analysis yielded a Pearson correlation coefficient of $r = .685$ (494 degrees of freedom) with a probability value of $p < .001$. The result indicates a statistically significant and strong positive relationship between the two variables. In general, students who obtained higher scores on the combined measure of Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support also tended to report higher levels of socio-political involvement.

The positive direction of the correlation indicates that the two variables tend to move together. Students who more strongly endorsed the perceived conditions associated with participation generally reported greater involvement in traditional, digital, or organizing socio-political activities, whereas students who expressed lower agreement with these conditions tended to report lower involvement. Because $p < .001$, the observed association is unlikely to be consistent with a population correlation of zero under the assumptions of the statistical test. Thus, the findings provide evidence of a significant relationship between the aggregated perceived motivating conditions and socio-political engagement among the respondents.

The magnitude of the association is also noteworthy. Squaring the correlation coefficient produces an r^2 of approximately .469, indicating that the two measures share approximately 46.9% of their observed variance. This represents substantial statistical overlap between students' perceptions of the motivating conditions and their reported level of socio-political participation. However, this value should be interpreted as shared variance rather than as the percentage of activism caused or explained by the perceived motivating conditions. The cross-sectional correlational design cannot determine the direction of influence or establish causality.

The finding is broadly consistent with contemporary collective-action research, which indicates that political participation is associated with multiple psychosocial conditions rather than a single motivating factor. Da Costa et al. (2023), integrating evidence from systematic reviews and meta-analyses, found that participation in collective behavior and social movements was associated with agreement with collective goals, perceived injustice, collective efficacy, collective identity, moral conviction, perceived threat, and attitudes toward existing social arrangements. Their review demonstrates that socio-political participation commonly emerges from the interaction of several motivational and social processes. The strong aggregate association observed among UDM students is therefore consistent with a multidimensional conception of political engagement.

The result may also be interpreted in relation to the findings presented in Table 3. Respondents generally agreed that Cause, Government Weakness, Outside Assistance or Support, and Leadership Influence were relevant conditions associated with participation. Cause-related concerns, particularly social justice and human rights, received the highest descriptive assessment, while lack of transparency and accountability was prominent under Government Weakness. The significant correlation in Table 4 indicates that, when these perceptions are combined, greater endorsement is associated with higher levels of reported engagement.

Nevertheless, the correlation does not demonstrate that all four constructs contribute equally to this association. Aggregating Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support into one perceived-predictor score combines theoretically distinct dimensions. A strong correlation for the resulting composite may exist even when some component constructs have stronger relationships with socio-political involvement than others, or when one construct has little independent relationship after the remaining variables are considered.

This limitation is important because recent Philippine research demonstrates that different political attitudes and contextual conditions may relate differently to various forms of youth political participation. Ladia and Pano (2024), in their study of Filipino undergraduate students during the 2022 Philippine elections, found that political knowledge, political interest, internal political efficacy, external political efficacy, pandemic fatigue, and political discontent did not operate uniformly across traditional, interpersonal, and online forms of participation. Internal political efficacy, for example, was associated with all three forms, whereas political discontent was not significantly related to the measured participation outcomes. Their findings illustrate why conceptually different political motivations should preferably be examined separately rather than assumed to have equivalent relationships with engagement.

The UDM finding is also consistent with evidence that opportunities, networks, and modes of participation are related to youth political engagement. Agojo et al. (2023) documented how young Filipino activists use social media for information dissemination, network expansion, advocacy, and continued engagement. Boulianne and Theocharis (2020), through a meta-analysis of 106 survey studies, likewise found that politically oriented uses of digital media were positively associated with civic and political engagement, including offline participation. These studies reinforce the view that socio-political involvement is connected not only with attitudes toward issues but also with communication networks and opportunities for action.

The strong positive correlation should therefore be understood as evidence that students' perceived motivational environment is closely associated with their reported participation, rather than as evidence that one particular factor directly produces activism. Cause-related concerns may provide value or issue alignment; perceptions of government weakness may reflect dissatisfaction or perceived injustice;

leadership may provide direction and organizational credibility; and outside assistance or support may provide networks and resources. These factors may operate simultaneously, interact with one another, or become relevant under different forms of participation.

Another consideration is that both variables were measured using the same cross-sectional self-report survey. Students reported their own socio-political involvement and also evaluated conditions they believed could motivate participation. Consequently, the magnitude of the association may partly reflect shared response tendencies, common perceptions, or the tendency of more politically engaged respondents to evaluate activism-related conditions more favorably. The direction of the relationship may also be reciprocal. Students may become politically active because they perceive particular causes or support structures as important, but participation itself may also increase their awareness of social issues, movement leadership, institutional shortcomings, and activist networks.

This possibility is consistent with Boulianne and Theocharis (2020), who cautioned against assuming a one-directional causal pathway between political media use and participation. Their meta-analysis found evidence that political engagement may encourage digital-media political use, just as digital political activity may facilitate participation. The same caution applies to the present findings: higher perceived motivating-condition scores may be associated with greater participation, but the study cannot determine which variable precedes the other.

The result also needs to be interpreted alongside the relatively modest levels of participation found in Table 2. Students were classified as Slightly Involved across traditional, digital, and organizing modalities, despite generally agreeing with the motivating conditions presented in Table 3. The significant correlation does not contradict this pattern. It indicates that relative differences exist within the sample: even within an overall context of modest participation, students who more strongly endorse the perceived motivating conditions tend to report comparatively higher involvement.

This distinction demonstrates why mean levels and correlations answer different research questions. The descriptive means indicate the general level of participation and agreement within the sample, whereas the correlation assesses whether students who differ in their perceived motivating-condition scores also tend to differ systematically in their involvement scores. Thus, a population can demonstrate relatively low average participation while still showing a strong association between motivational perceptions and individual differences in engagement.

From an institutional perspective, the finding suggests that students' socio-political engagement should be understood within a broader context that encompasses meaningful public issues, perceptions of institutional conditions, social relationships, leadership, and access to networks. However, the university should not use this relationship to identify, classify, monitor, or predict the political behavior of individual students. Political attitudes and lawful civic participation are sensitive areas of personal expression. The appropriate educational implication is to provide opportunities for nonpartisan civic learning, critical discussion, media literacy, understanding of democratic processes, and responsible participation without directing students toward or away from particular political positions.

Table 4 demonstrates a statistically significant and strong positive association between the aggregated perceived motivating-condition score and socio-political involvement, $r(494) = .685$, $p < .001$. The two measures share approximately 46.9% of their observed variance, indicating substantial statistical correspondence. The result supports the conclusion that stronger endorsement of the combined perceived conditions is associated with greater self-reported socio-political involvement among the surveyed UDM students.

However, the finding should not be interpreted to mean that the combined conditions accounted for 46.9% of students' activism or that each of the four constructs contributed equally to participation. A more informative analysis should report separate correlations for Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support and subsequently examine their independent contributions through an appropriately specified multivariable model. Reliability estimates, confidence intervals, and

regression diagnostics should likewise be reported before drawing conclusions about the relative importance of individual motivating conditions.

Multiple Regression Analysis of Perceived Motivating Conditions and Socio-Political Involvement

Table 13. Multiple Regression Analysis

Submitted predictor	Contrast	Estimate	p	Permissible interpretation before reanalysis
Cause	2 vs 1	0.1199	.468	Not significant
	3 vs 1	0.5804	.002	Category 3 differs from reference
	4 vs 1	1.3292	< .001	Category 4 differs from reference
Leadership Influence	2 vs 1	0.0398	.799	Not significant
	3 vs 1	0.3931	.035	Category 3 differs from reference
Government Weakness	4 vs 1	0.2158	.380	Not significant
	2 vs 1	0.1417	.451	Not significant
	3 vs 1	0.0771	.719	Not significant
	4 vs 1	-0.0729	.773	Not significant
Outside Assistance/Support	2 vs 1	0.1604	.361	Not significant
	3 vs 1	0.7681	< .001	Category 3 differs from reference
	4 vs 1	1.5706	< .001	Category 4 differs from reference

The multiple regression analysis was intended to determine whether Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support independently explain variation in students' socio-political involvement when considered simultaneously. However, the submitted regression output requires careful interpretation because the four constructs were entered into the model as categorical variables rather than as continuous composite scale scores. Each construct is represented by three contrasts: 2 versus 1, 3 versus 1, and 4 versus 1, with Category 1 as the reference category.

Under this coding structure, each reported estimate represents the difference in predicted socio-political involvement between a particular category and Category 1, with the other variables in the model held constant. Thus, the coefficients should not be interpreted as standardized beta coefficients showing the relative predictive strength of Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support. Regression coefficients for categorical predictors depend on the selected reference category and the particular coding scheme employed; consequently, interpretation must focus on contrasts between categories rather than on a one-unit change in an underlying continuous construct (Freese & Johfre, 2022; Schober & Vetter, 2021).

For Cause, the contrast between Category 2 and Category 1 was not statistically significant, with an estimate of 0.1199 and $p = .468$. This indicates that, within the submitted model, there was insufficient evidence of a difference in socio-political involvement between respondents classified in Categories 2 and 1 of the Cause variables. In contrast, Category 3 differed significantly from Category 1, with an estimate of 0.5804 and a p -value of .002. Category 4 also differed significantly from Category 1 and yielded a larger positive estimate of 1.3292 ($p < .001$). Subject to verification of the coding scheme, respondents classified in Categories 3 and 4 of Cause therefore had higher predicted socio-political involvement than those in Category 1 after accounting for the other variables in the submitted model.

The pattern for Cause is compatible with the descriptive findings in Table 3, where respondents generally agreed that cause-related considerations, particularly concerns involving social justice and human rights,

may be associated with socio-political participation. Collective-action research similarly identifies issue salience, perceived injustice, moral conviction, collective identity, and commitment to collective goals as factors associated with willingness to participate in collective action (da Costa et al., 2023; van Zomeren et al., 2008). Nevertheless, the present regression coefficients cannot yet demonstrate that Cause is an independent continuous predictor of student involvement because the construct was modeled categorically and its psychometric properties have not been fully documented.

Leadership Influence produced a different pattern. The contrast between Category 2 versus Category 1 was not significant, with an estimate of 0.0398 and $p = .799$. The contrast between Category 3 versus Category 1 was statistically significant, with an estimate of 0.3931 and $p = .035$, while the Category 4 versus Category 1 comparison was not significant, with an estimate of 0.2158 and $p = .380$. Thus, only Category 3 showed evidence of higher predicted socio-political involvement relative to the reference category in the submitted model.

The absence of consistent progression across the Leadership Influence categories is analytically important. If the four categories represent increasing levels of agreement on a leadership-related scale, one might expect progressively increasing coefficients if a straightforward positive relationship exists. Instead, significance occurred only for Category 3, whereas Category 4 was not statistically different from Category 1. This irregular pattern may reflect sampling variation, unequal category sizes, nonlinear relationships, measurement limitations, or the consequences of converting an underlying scale into categories. Without information on the number of respondents within each category, confidence intervals, and the precise categorization procedure, the pattern cannot be interpreted conclusively.

The leadership result nevertheless remains conceptually relevant. Resource Mobilization Theory proposes that leadership, organizational structures, networks, and coordination facilitate collective action by connecting individuals with opportunities and resources for participation (McCarthy & Zald, 1977). However, recognizing leadership as potentially important at theoretical or descriptive level does not imply that Leadership Influence will necessarily exhibit a strong independent statistical association after accounting for other factors. The present results therefore support caution when distinguishing between students' general agreement that credible leadership matters and the independent relationship between the measured leadership construct and their own involvement.

Government Weakness showed no statistically significant contrasts. The Category 2 versus Category 1 estimate was 0.1417, $p = .451$; the Category 3 versus Category 1 estimate was 0.0771, $p = .719$; and the Category 4 versus Category 1 estimate was -0.0729, $p = .773$. Based on the submitted model, there is therefore no evidence that respondents classified in Categories 2, 3, or 4 of Government Weakness differed significantly in their predicted socio-political involvement from respondents classified in Category 1, after adjustment for the other variables included in the model.

This finding is particularly noteworthy when considered alongside Table 3. Government Weakness obtained a relatively high descriptive composite mean of 2.78, with lack of transparency and accountability receiving a mean of 2.89. Students therefore generally recognized perceived shortcomings in government as conditions that could motivate socio-political participation. Yet the regression contrasts did not show statistically significant differences in involvement across the submitted Government Weakness categories.

The apparent difference between descriptive agreement and regression results illustrates why endorsement of potential motivation should not be equated with behavioral prediction. Students may broadly agree that a lack of transparency, accountability, responsiveness, or institutional effectiveness can motivate activism, yet individual differences in such perceptions may not independently account for differences in reported involvement when other motivating conditions are considered simultaneously. Contemporary research likewise indicates that political dissatisfaction does not necessarily translate uniformly into participation. Ladia and Panao (2024), for example, found that different political attitudes were related differently to offline, interpersonal, and online participation among Filipino youth, emphasizing that dissatisfaction alone should not be assumed to produce political action.

The Government Weakness results should also not be interpreted as evidence that government performance is irrelevant to student engagement. The nonsignificant coefficients apply only to how this construct was measured and coded in the submitted model. Statistical non-significance does not establish the absence of a substantive relationship, particularly when the instrument's reliability, construct validity, category sizes, statistical power for individual contrasts, and model assumptions have not yet been fully documented.

Outside Assistance or Support displayed the clearest pattern of significant positive contrasts. Category 2 did not differ significantly from Category 1, with an estimate of 0.1604 and $p = .361$. However, Category 3 had a significant positive estimate of 0.7681, $p < .001$, while Category 4 had a significant positive estimate of 1.5706, $p < .001$. Within the submitted categorical model, respondents in Categories 3 and 4 therefore reported higher predicted socio-political involvement than those in the reference category, after controlling for the other included variables.

This pattern is broadly compatible with Resource Mobilization Theory, which emphasizes the importance of social networks, organizational opportunities, external support, communication resources, and collective infrastructure in facilitating participation (McCarthy & Zald, 1977). It also aligns with the descriptive findings that respondents agreed that Outside Assistance or Support was a potentially motivating condition and particularly recognized networking opportunities with students from other universities. In the Philippine setting, Agojo et al. (2023) demonstrated that young activists use social media and broader networks to communicate political information, connect with audiences, and sustain advocacy, illustrating how access to networks may facilitate opportunities for participation.

Nevertheless, the relatively large estimates for Categories 3 and 4 of Outside Assistance or Support should not be used to conclude that this construct is the strongest predictor of socio-political involvement. The reported values represent specific category-to-reference contrasts. They are not standardized coefficients on a common continuous metric, and their magnitude can be affected by the coding scheme, distribution of respondents across categories, and the characteristics of the reference category. Comparing the numerical sizes of these contrasts with those from Cause or Leadership Influence would therefore not provide a valid ranking of predictor importance.

Taken together, the submitted regression results show statistically significant category contrasts for selected levels of Cause, Leadership Influence, and Outside Assistance or Support, while none of the Government Weakness contrasts reached statistical significance. For Cause, Categories 3 and 4 differed significantly from Category 1. For Leadership Influence, only Category 3 differed significantly from the reference group. For Outside Assistance or Support, Categories 3 and 4 differed significantly from Category 1. These findings indicate differences among particular categories within the submitted model but do not yet establish the independent linear contributions of the four proposed constructs.

The manuscript further reports an overall model correlation of $R = .734$ and $R^2 = .538$. If these values are confirmed from the original statistical output, the model accounts for approximately 53.8% of the observed variance in socio-political involvement within the sample analyzed. This represents substantial model-level explanatory correspondence. However, R^2 should not be interpreted to mean that the model explains 53.8% of why students become politically active or that the four motivating conditions caused 53.8% of their activism. R^2 describes the proportion of observed variation in the outcome statistically accounted for by the predictors as they were coded in the fitted sample; it does not establish causation.

The distinction is especially important because the study is cross-sectional and observational. The direction of association cannot be determined with certainty. Stronger endorsement of particular conditions may correspond with greater socio-political involvement, but participation itself may also alter students' perceptions of causes, leadership, institutions, and external networks. Unmeasured variables such as political interest, efficacy, political knowledge, social identity, peer networks, prior participation, socioeconomic circumstances, and exposure to political information could also contribute to the observed relationships.

More fundamentally, the present regression specification appears inconsistent with the measurement framework described in the methodology. The questionnaire reportedly contains four-item scales for Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support using a four-point agreement response format. If the individual items within each construct are intended to measure a common underlying dimension, their psychometric properties should first be established before creating and analyzing composite scores. Current measurement literature emphasizes that construct validity and reliability are central requirements when multi-item rating scales are used in subsequent statistical analyses (Jebb et al., 2021). Measurement error in rating scales can also affect estimated regression coefficients and statistical power (Glas et al., 2024).

Accordingly, the authors should first report reliability estimates for each of the four predictor subscales and provide evidence supporting their intended dimensional structure. If the items demonstrate adequate internal consistency and construct validity, a defensible approach would be to calculate a composite score for each construct, such as an appropriately justified summed or averaged scale score, and then enter the four construct scores into a re-specified multivariable regression model. This would permit estimation of the relationship between each construct and socio-political involvement while controlling the remaining constructs without imposing unexplained categorical cut points.

The reanalysis should also provide a separate correlation matrix for the four predictor constructs and the socio-political involvement outcome. This would show the zero-order relationship of Cause, Leadership Influence, Government Weakness, and Outside Assistance or Support with involvement before statistical adjustment. It would also help identify potentially high correlations among the predictors that could affect the stability of their regression coefficients.

Multicollinearity is particularly relevant because conceptually related motivational constructs may share substantial variance. When predictors are highly correlated, regression coefficients can become unstable, their standard errors may increase, and the apparent independent contribution of individual predictors becomes difficult to separate. Contemporary reviews of regression reporting therefore recommend examining multicollinearity using measures such as variance inflation factors and correlations among predictors, together with appropriate model diagnostics (Grant et al., 2024).

The revised model should consequently report the unstandardized regression coefficient, standard error, standardized coefficient when appropriate, 95% confidence interval, t statistic, and p value for each predictor. At the model level, the analysis should report R, R^2 , adjusted R^2 , the omnibus F statistic with its corresponding degrees of freedom and p value, and an appropriate measure of residual error. Assumptions concerning linearity, independence of errors, homoscedasticity, residual distribution, influential observations, and multicollinearity should likewise be examined and documented. Confidence intervals are especially valuable because they communicate the precision and plausible range of individual regression estimates rather than reducing interpretation to statistical significance alone.

Until this reanalysis is completed, the most defensible conclusion is that the submitted categorical regression identifies significant differences in socio-political involvement for selected categories of Cause, Leadership Influence, and Outside Assistance or Support relative to Category 1, whereas no significant contrasts were observed for Government Weakness. The present output does not support ranking Cause and Outside Assistance or Support as the strongest predictors, nor does it establish that Government Weakness has no independent relationship with participation under an appropriately specified scale-based model.

The analysis therefore provides potentially meaningful preliminary evidence but requires statistical clarification before firm conclusions concerning independent predictive relationships can be incorporated into the article. Reanalyzing the constructs using validated composite measures, together with full reporting of model diagnostics and effect estimates, would provide a substantially stronger basis for determining which perceived motivating conditions are independently associated with socio-political involvement among UDM students.

Demographic Differences in Students' Socio-Political Involvement

Table 14. Significant Difference in Students' Socio-Political Involvement Based on the Profile

Variable	Test	Statistic	p	Interpretation
Age	Welch's ANOVA	F = 1.83	.211	No significant omnibus difference
Academic program	Welch's ANOVA	F = 5.74	< .001	Significant omnibus difference
Sex at birth	Independent-samples t test	t = 0.155	.877	No significant difference
Year level	Welch's ANOVA	F = 5.49	.001	Reported significant; df/coding requires verification
Academic status	Independent-samples t test	t = 0.568	.571	No significant difference

The analysis examined whether students' self-reported socio-political involvement differed according to age, academic program, sex at birth, year level, and academic status. Welch's analysis of variance was used for variables involving more than two groups, while independent-samples t tests were used for variables consisting of two groups. The results indicate that significant omnibus differences were reported for academic program and year level, whereas no statistically significant differences were observed according to age, sex at birth, or academic status.

For age, Welch's ANOVA yielded $F = 1.83$, $p = .211$. Because the probability value exceeded the conventional .05 significance level, the analysis did not provide sufficient evidence that mean socio-political involvement differed across the age categories represented in the study. This finding should not be interpreted to mean that age is universally unrelated to political participation. Rather, within this particular sample and using the age categories employed by the researchers, no statistically detectable omnibus difference was observed.

The age finding should also be interpreted considering the sample distribution. Approximately 95.2% of respondents were between 18 and 23 years old, while only 21 students were aged 24–26 and 3 were aged 26 years and above. The limited representation of older respondents reduces comparability across age groups and may constrain the statistical sensitivity of the analysis. Consequently, the nonsignificant result may partly reflect the sample's relatively narrow age range rather than demonstrate that age has no relevance to political engagement.

Recent Philippine research suggests that youth political participation may be more directly related to political interest, efficacy, social networks, information environments, and opportunities for engagement than to age alone. Ladia and Panao (2024), in their examination of Filipino undergraduate students during the 2022 Philippine elections, found that political knowledge, political interest, efficacy, and pandemic-related experiences were associated differently with traditional, interpersonal, and online political participation. Such findings reinforce the need to interpret demographic variables alongside psychological, social, and contextual characteristics rather than regard age as a standalone determinant of engagement.

Academic program produced a statistically significant omnibus difference, with Welch's ANOVA yielding $F = 5.74$, $p < .001$. This result indicates that at least one academic-program group differed from another in mean socio-political involvement. However, omnibus ANOVA does not identify which specific colleges differ, the direction of those differences, or their magnitude. Thus, the finding establishes heterogeneity across academic programs but does not support the conclusion that students from any particular college are more politically active than those from another.

The significant academic-program result is theoretically plausible because university programs may expose students to different curricular content, modes of inquiry, professional orientations, social issues, peer networks, and forms of civic discussion. Mühleck and Hadjar (2023), examining higher education and political participation across five European countries, found that political participation varied with

characteristics of higher education, including field of study. They proposed that academic fields may vary in their exposure to social and political issues and in the opportunities, they provide for political socialization. Their study found systematic differences in political participation according to field of study, although the mechanisms varied across contexts.

The UDM findings may therefore indicate that academic environments are associated with different patterns of political engagement. Nevertheless, the current data cannot establish that disciplinary exposure caused the observed differences. Students self-select into academic programs, and differences among programs may also reflect prior political interest, family background, peer networks, socioeconomic characteristics, organizational participation, or other unmeasured factors. The significant result should therefore be described as an association between academic-program membership and socio-political involvement rather than as an effect of academic discipline.

This caution is particularly important because the submitted results do not provide the mean socio-political involvement score, standard deviation, confidence interval, or sample-specific effect size for each academic program. Without these statistics, it is not possible to determine whether the observed differences are substantively large or relatively modest, even if statistically significant. Likewise, without appropriate post hoc comparisons, statements that students in public management, social sciences, education, or any other particular academic area are more politically engaged would not be statistically supported.

If Welch's ANOVA was selected because of unequal variances or substantially unequal group characteristics, an appropriate post hoc procedure such as the Games–Howell test should be conducted to identify which pairs of academic programs differ. The Games–Howell procedure was developed specifically for multiple comparisons under conditions involving unequal sample sizes and variances (Games & Howell, 1976). The post hoc analysis should report pairwise mean differences, confidence intervals, adjusted p-values, and an appropriate effect size estimate.

The comparison according to sex at birth yielded $t = 0.155$, $p = .877$. This result indicates no statistically significant difference in overall socio-political involvement between the female and male respondents represented in the study. The extremely high p-value provides little evidence against the null hypothesis of equal group means within the sample analyzed. However, the actual group means, standard deviations, the confidence interval for the mean difference, and the effect size were not reported, limiting the assessment of the magnitude and precision of the observed difference.

The absence of a significant sex-at-birth difference in the UDM sample should not be generalized to all forms of political participation. Political engagement may vary by issue, mode, context, and type of participation. Dayrit et al. (2022), in a study of 1,090 young Filipino netizens, found that female respondents reported higher participation in certain forms of social media political engagement related to gender issues. Their findings illustrate that demographic differences may become visible when participation is examined within a particular issue domain, even when broader measures of political engagement show little or no overall difference.

The present UDM study measures socio-political involvement across traditional, digital, and organizing activities rather than focusing on a single issue such as gender advocacy. Therefore, its nonsignificant sex-at-birth result does not contradict studies finding gender-related differences in particular forms of political participation. Instead, the combined evidence suggests that demographic differences may depend on how political engagement is defined and measured.

The year level produced a statistically significant result, with Welch's ANOVA yielding $F = 5.49$, $p = .001$. On its face, this result indicates that mean socio-political involvement differed among at least some year-level groups. Such a finding could be relevant because university experiences accumulate across years of study, potentially increasing exposure to student organizations, academic discussions, campus networks, institutional issues, and civic activities.

Political socialization research provides a plausible basis for examining this possibility. Ladia (2025), studying Filipino university students in relation to the 2022 presidential elections, found that family, peers,

schools, media environments, and, in particular, social capital were important to traditional, interpersonal, and online political participation. University experience may therefore contribute to engagement through expanding social networks and opportunities for political interaction. Similarly, Mühleck and Hadjar (2023) emphasize the role of higher education as a setting for political socialization and the development of orientations toward active citizenship.

However, the UDM year-level result cannot presently be interpreted substantively because the reported analysis contains an important statistical inconsistency. The demographic profile identifies five year-level categories: first year, second year, third year, fourth year, and fifth year. The fifth-year category contains only one respondent. The editorial review of the submitted output also indicates that the reported Welch ANOVA used numerator degrees of freedom inconsistent with a straightforward five-group comparison. Unless one or more categories were collapsed or excluded from the analysis, the reported test specification does not correspond with the demographic categories presented in the manuscript.

The presence of only one fifth-year respondent is particularly problematic. A group containing a single observation cannot provide a stable estimate of within-group variability, which is required for conventional group-comparison procedures. The authors should therefore inspect the original dataset and statistical syntax to determine exactly how year level was coded and analyzed. If the fifth-year case was excluded or combined with another category, the methodological justification for doing so must be stated explicitly. The categories should not be regrouped retrospectively merely to obtain statistical significance.

Even if the year-level omnibus difference remains significant after correction, the result would still require post hoc comparisons before any conclusion can be made regarding which year levels differ. The present data do not support claims that second- or third-year students are more politically active, that first-year students are less politically engaged, or that students experience a particular “politicization peak” during the middle years of university study. Such interpretations require group means and statistically supported pairwise comparisons.

Academic status likewise showed no statistically significant difference. The independent-samples *t* test yielded $t = 0.568$, $p = .571$, indicating insufficient evidence that students classified as being in good academic status differed in socio-political involvement from those classified as being in warning status. The result suggests that current academic standing, as operationalized in the study, was not associated with a detectable difference in overall socio-political involvement.

This result should also be interpreted cautiously because the two academic-status groups were highly unequal in size. A total of 465 respondents, representing 93.8% of the sample, were classified as having good academic status, whereas only 31 respondents, or 6.3%, were in warning status. Although unequal sample sizes do not automatically invalidate a comparison, the small warning-status group yields less precise estimates and makes the analysis more sensitive to differences in variance and atypical observations. The authors should therefore report group means, standard deviations, confidence intervals, an appropriate effect size, and evidence concerning the equality or inequality of variances.

Taken together, the demographic analyses indicate that socio-political involvement was not uniformly differentiated by all respondent characteristics. Age, sex at birth, and academic status showed no statistically significant differences, whereas academic program and year level showed significant omnibus results. The findings therefore suggest that socio-political engagement among UDM students may vary more with aspects of the academic environment or the stage of university experience than with age, sex at birth, or academic standing. However, this interpretation remains provisional because the specific academic-program and year-level differences have not yet been identified.

Recent research supports treating youth political participation as multidimensional and context-dependent. Ladia and Panao (2024) demonstrated that different political attitudes predicted different forms of political participation among Filipino undergraduate students. Ladia (2025) similarly found that interpersonal relationships, socialization processes, and social capital were relevant across several modes of political participation among Filipino university students. Eda et al. (2025), studying 342 legal-age Filipino youth, further found that individual, interpersonal, and national forms of resilience were differently associated with

various dimensions of civic engagement. Collectively, these studies indicate that political participation is better understood by considering interacting institutional, relational, psychological, and contextual factors than by demographic categories alone.

The academic program finding is therefore potentially meaningful but should not be interpreted through the lens of stereotypes about particular fields. Academic discipline may correspond with differences in curricular exposure, peer interaction, civic skills, professional orientation, and political socialization, but it may also reflect pre-existing differences among students who select into particular programs. Likewise, the reported year-level difference may reflect accumulated university experience, changing social networks, or cohort differences, but the available evidence cannot distinguish among these explanations.

For final publication, the academic-program and year-level analyses should be supplemented with group means, standard deviations, confidence intervals, effect sizes, and appropriate pairwise post hoc tests. The year-level coding must first be verified, and the fifth-year $n = 1$ issue must be resolved methodologically. The authors should also report the complete Welch ANOVA statistics, including degrees of freedom. For the two-group comparisons involving sex at birth and academic status, mean differences, confidence intervals, and standardized effect sizes should be provided.

The most defensible interpretation is that the study found significant omnibus differences in socio-political involvement by academic program and reported year level, whereas age, sex at birth, and academic status did not show significant differences. The findings do not yet establish which academic programs or year levels differ, nor do they demonstrate that membership in a demographic group causes differences in political participation. The results instead point to possible variation within the university population that requires more detailed statistical analysis before substantive conclusions about specific student groups can be made.

CONCLUSIONS

The study concludes that socio-political engagement among the surveyed Universidad de Manila students is generally modest and expressed through multiple forms rather than a single mode of participation. Respondents reported slight involvement in traditional, digital, and organizing activities, with digital engagement obtaining the highest descriptive mean. Within digital modality, sharing socio-political advocacy content and participating in online discussions about government policies were the most frequently reported activities. In contrast, participation in physical rallies, mobilization activities, recruitment, and logistical organizing remained relatively limited. These findings indicate that students are more inclined toward accessible, discussion-based, and digitally mediated forms of engagement than toward sustained physical mobilization or organizational participation.

The findings further show that students generally recognize several conditions as relevant to socio-political participation. Cause-related motivation received the highest level of agreement, particularly concerns involving social justice and human rights, followed closely by perceptions of government weakness, especially lack of transparency and accountability. Students also agreed that outside assistance or support, including opportunities to connect with students from other universities, and credible movement leadership can contribute to participation. The results therefore suggest that students perceive socio-political engagement as shaped by a combination of issue-related, institutional, social, and organizational considerations rather than by a single motivating factor.

A strong and statistically significant positive relationship was found between the aggregated perceived motivating-condition score and students' level of socio-political involvement, $r(494) = .685, p < .001$. This indicates that students who more strongly endorsed the combined motivating conditions also tended to report higher levels of involvement. However, this relationship should not be interpreted causally. The cross-sectional nature of the study does not establish whether these perceptions lead to participation, whether participation influences the way students perceive these conditions, or whether both are affected by other unmeasured factors. Moreover, because the four motivating constructs were combined into a single aggregated score, the correlation does not identify which specific condition has the strongest individual relationship with socio-political involvement.

The submitted multiple regression results provide preliminary evidence that selected categories of Cause, Leadership Influence, and Outside Assistance or Support differ from their respective reference categories with respect to socio-political involvement, whereas the categorical contrasts for Government Weakness were not statistically significant. Nevertheless, these findings should remain provisional. The regression output treated the four predictor constructs as categorical factors even though the methodology describes them as multi-item Likert-type constructs. As a result, the coefficients represent category contrasts rather than standardized predictor effects. The present evidence therefore does not justify ranking Cause or Outside Assistance or Support as the strongest independent predictors of participation, nor does it establish that Government Weakness has no independent relationship with involvement under a properly specified model. A reanalysis using validated composite scores and complete regression diagnostics is necessary before firm conclusions regarding predictive strength can be made.

The demographic analyses further indicate that socio-political involvement did not differ significantly according to age, sex at birth, or academic status. Significant omnibus differences were reported for academic programs and year level. However, these findings do not specify which specific academic programs, or year levels differ, as appropriate post hoc comparisons were not reported. The year-level analysis also requires verification because the sample included only one fifth-year respondent and the reported statistical output appears inconsistent with the five year-level categories presented in the demographic profile. Thus, the study may conclude that variation exists across academic programs and possibly across year levels, but it cannot yet identify the specific groups responsible for these differences.

Taken together, the study presents a picture of UDM students as generally slightly involved in socio-political activities, with engagement occurring more frequently through digital and discussion-oriented channels than through organizing or physical mobilization. Students nevertheless demonstrate awareness of social justice, human rights, government accountability, leadership, and social networks as relevant conditions surrounding political participation. The findings therefore show that limited observable activism should not automatically be interpreted as political apathy, as students may engage selectively through modes that are more accessible, less resource-intensive, or more consistent with contemporary digital communication.

The study also demonstrates that student socio-political engagement should be understood as multidimensional. Political participation appears to involve the interaction of personal concerns, perceptions of institutions, access to networks, organizational opportunities, and the forms through which students choose to express themselves. At the same time, the current evidence supports association rather than causation and requires stronger psychometric and statistical documentation before conclusions about independent predictors can be established.

Overall, the most defensible conclusion is that socio-political engagement among the surveyed UDM students is modest, differentiated across modes of participation, and significantly associated with their combined perceptions of motivating conditions. The study provides useful institutional evidence on how students understand and participate in socio-political activities, but its findings should be used to support civic education, democratic dialogue, media literacy, and responsible student development rather than to identify, profile, or monitor students according to their political beliefs or activities. Future analyses should strengthen the measurement of the four motivating constructs, examine their separate relationships with involvement, resolve the regression and year-level statistical issues, and consider longitudinal designs to better understand how students' socio-political engagement develops over time.

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Research Culture, Engagement, and Self-Reported Research Productivity among Teaching and Non-Teaching Personnel at Universidad de Manila: A Convergent Mixed Methods Assessment

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ABSTRACT

This study assessed research culture, research engagement, and self-reported research productivity among teaching and non-teaching personnel at Universidad de Manila and used the integrated findings to inform an Institutional Research Empowerment Program. A convergent mixed methods design was employed. The quantitative component involved 100 participants, equally divided between 50 teaching and 50 non-teaching personnel, while the qualitative component included 10 interview participants, with five from each group. Survey data were analyzed using descriptive statistics, while interview responses were examined through thematic analysis and integrated during interpretation. Research culture was rated High overall ($M = 3.19$), with strongest ratings for recognition of research as an important university function and awareness of institutional research priorities. Research engagement was likewise High ($M = 3.05$), with internal training and collaboration rated more favorably than external partnerships and research-time allocation. Self-reported research productivity was also High ($M = 2.85$), although publication and research-related recognition were comparatively lower. Teaching personnel consistently reported higher descriptive means than non-teaching personnel across the three domains. Qualitative findings converged with the quantitative patterns by identifying leadership support, collaboration, training, recognition, and professional fulfillment as enabling conditions, while workload, limited time, funding, skills gaps, and insufficient mentoring constrained sustained output. The integrated findings indicate that a favorable research orientation does not automatically translate into verified productivity. The study recommends structured mentoring, differentiated capability development, protected research time, publication support, external collaboration, incentives, and systematic monitoring of documented research outputs. These measures can strengthen inclusive, sustainable institutional research development efforts.

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INTRODUCTION

Research is a fundamental function of higher education institutions because it contributes to knowledge generation, innovation, evidence-based decision-making, professional development, and universities' capacity to respond to social and institutional needs. However, the presence of research policies, offices, and formal mandates does not necessarily indicate that research has become an established institutional practice. The development of sustained research activity depends on the extent to which research is embedded in organizational expectations, everyday practices, professional relationships, resource allocation, leadership priorities, and opportunities available to university personnel. Within this context, research culture represents more than institutional recognition of research; it reflects the environment through which personnel are enabled, encouraged, and supported to participate meaningfully in knowledge production.

Research culture may therefore be understood as the shared values, expectations, practices, norms, structures, and institutional arrangements that shape how research is perceived and undertaken within an organization. A supportive research culture is evident not only when personnel acknowledge research as important but also when institutional conditions allow research activities to progress from conceptualization to completion, dissemination, publication, utilization, and further collaboration. In Philippine higher education, Roxas-Soriano et al. (2020) found that research culture is influenced by institutional research management, faculty capability, collaboration, linkages, and the balance among the teaching, research, and extension functions of universities. Similarly, Quitoras and Abuso (2021) identified leadership commitment, strategic research management, incentives, capability development, and collaborative practices as important elements in establishing and sustaining research culture among Philippine higher education institutions.

These findings highlight the difference between a symbolic commitment to research and an operational research environment. Universities may formally recognize research in their mission, policies, or strategic plans while personnel continue to experience difficulties associated with workload, funding, mentoring, technical competence, collaboration, or publication. Research culture should therefore be assessed in terms of both institutional orientation and the practical structures through which that orientation is translated into scholarly activity. More recent Philippine evidence supports this perspective. Camilon et al. (2024), examining faculty research productivity across campuses of a Philippine state university, found that institutional support systems and the research working environment were significantly associated with research productivity. Their findings reinforce the importance of examining research culture as an interaction between individual motivation and institutional conditions rather than as a matter of personal willingness alone.

Research engagement is closely related to research culture but represents a conceptually different dimension. Whereas research culture concerns the institutional environment surrounding research, research engagement refers to the actual participation of personnel in research-related activities. Such activities may include attendance at research training, development of proposals, participation in funded or institutional projects, collaboration with colleagues, engagement with external research partners, conference presentations, publication activity, research-related extension work, mentoring, peer review, and other forms of scholarly participation. Engagement therefore reflects the extent to which personnel participate in the research process rather than merely their attitudes toward research.

The distinction is important because a favorable research culture does not automatically produce high levels of engagement. Personnel may recognize the importance of research and perceive institutional encouragement yet remain constrained by competing responsibilities or insufficient support. Heng et al. (2020), in a review of research engagement and productivity in developing-country contexts, proposed that scholarly participation is shaped by interacting factors at the individual, institutional, and national levels. Individual research competence, confidence, motivation, and prior experience operate alongside institutional factors such as workload, mentoring, funding, facilities, incentives, leadership, and research policies. Broader national conditions, including research funding systems and higher education policy, can further facilitate or constrain participation. Consequently, research engagement is best understood as the product of an environment in which individual capability and motivation interact with institutional opportunity and support.

This distinction is particularly relevant in universities where personnel perform multiple responsibilities. Participation in workshops or seminars may demonstrate initial research engagement, but sustained engagement requires opportunities to apply those competencies through project development, implementation, dissemination, and collaboration. Ocampo et al. (2022), examining the structural relationships among drivers of higher education research productivity, identified institutional support, research funding, mentoring, reward systems, and electronic information resources as important foundational factors. These factors can influence other conditions that ultimately contribute to scholarly productivity. Thus, research capacity development should not be confined to isolated training activities but should form part of a broader institutional pathway that enables personnel to move from research preparation toward completed and disseminated outputs.

Research productivity represents a further and more outcome-oriented dimension. It concerns the tangible scholarly outputs generated through research activity and should be distinguished from both favorable attitudes toward research and participation in research-related activities. Research productivity is commonly represented through measurable outputs such as completed research projects, peer-reviewed publications, conference presentations, citations, grants, patents, policy outputs, research utilization, technical products, creative works, or other documented contributions appropriate to the discipline and institutional mandate.

Recent Philippine studies illustrate the importance of using observable indicators in assessing productivity. Palmiano (2024), examining faculty research engagement and productivity in a Philippine state university, documented approved, completed, presented, published, cited, and recognized research outputs over a three-year period. The study found that research engagement did not necessarily translate into equally high levels of completed or published outputs. Similarly, Gopez et al. (2024) examined the research productivity profiles of leading Philippine higher education institutions using bibliometric indicators such as publication volume, authorship, citations, journal impact, and international and corporate collaboration. These approaches demonstrate that research productivity is most directly established through verifiable outputs rather than through general perceptions of productivity.

This measurement distinction is central to the present study. The instrument used in the research asks respondents to rate statements about completed studies, ongoing projects, conference presentations, publications, research utilization, and research-related recognition on a Likert-type scale. Because these statements refer to factual research outputs but are captured through self-assessment rather than objective counts or institutional verification, they cannot be treated as audited productivity measures. Accordingly, the present study uses the term self-reported research productivity to describe these results. This distinction prevents favorable ratings from being interpreted as equivalent to verified publication rates, completed-project counts, citation performance, or other objective measures of scholarly output.

The relationship among culture, engagement, and productivity can therefore be conceptualized as related but non-equivalent. A supportive research culture may provide the institutional conditions that encourage engagement, while engagement may create opportunities for scholarly outputs. However, a favorable culture does not guarantee participation, and participation does not guarantee the completion, dissemination, or use of outputs. Research may be valued institutionally while personnel lack sufficient time to conduct it; staff may attend training without progressing to independent projects; and completed research may remain unpublished or underutilized when mentoring, publication support, funding, or external networks are inadequate. This distinction is particularly important when institutional assessments serve as the basis for research development programs, because interventions should address the point at which the research pathway becomes constrained.

The Philippine higher education context demonstrates the continuing importance of these institutional conditions. Although universities increasingly recognize research as part of academic and institutional development, research productivity remains uneven across institutions and regions. Gopez et al. (2024) reported substantial variation among the Philippines' more research-productive higher education institutions in publication production, citation performance, and international collaboration, with research activity particularly concentrated in the National Capital Region. Such disparities illustrate that participation in national knowledge production depends partly on the institutional capacities and networks available to researchers. At the organizational level, Philippine studies likewise identify time management, capability development, research funding, mentoring, incentives, research leadership, and institutional support as recurring conditions related to research productivity (Camilon et al., 2024; Ocampo et al., 2022; Palmiano, 2024).

An important contribution of the present study is its inclusion of both teaching and non-teaching personnel. Much of the higher education research productivity literature focuses on faculty members because teaching personnel are traditionally expected to perform research alongside instruction and extension. However, contemporary universities rely on a broader research ecosystem involving research managers, administrators, librarians, technical personnel, planners, quality assurance personnel, extension

practitioners, institutional researchers, information specialists, and other professional employees who may contribute to the generation, management, dissemination, application, or support of institutional knowledge.

Recent scholarship in higher education increasingly recognizes these contributions. Veles et al. (2023), in a systematic review of university professional staff, emphasized the changing roles, increasing agency, and growing collaboration of professional staff with academics across university functions. De Jong and del Junco (2024) similarly concluded that professional staff can influence academic knowledge development through their involvement in institutional strategy, research management, operational systems, resource development, and relationships linking universities with external actors. These findings challenge the assumption that knowledge production is exclusively a faculty activity and support a broader understanding of the institutional research ecosystem.

The inclusion of non-teaching personnel nevertheless requires methodological caution. Teaching and non-teaching personnel may not have identical research obligations, performance expectations, workload structures, or opportunities for publication. Faculty members may be expected to conduct research as part of academic promotion, professional evaluation, or workload requirements, whereas non-teaching personnel may contribute through institutional research, policy analysis, administrative innovation, planning, quality assurance, technical studies, research management, extension evaluation, or evidence generation related to their professional functions. Differences in reported engagement or productivity between these groups therefore cannot automatically be attributed to differences in research motivation or capability. They may instead reflect differences in job mandate, opportunity, incentives, time allocation, and the extent to which the measurement instrument captures role-appropriate forms of research contribution.

This consideration points to an important institutional gap. Assessments of university research environments frequently emphasize faculty research, while the experiences and potential contributions of non-teaching or professional personnel receive less attention. At the same time, measuring research culture solely through positive attitudes or productivity through perception ratings may obscure the institutional mechanisms that determine whether research activity yields sustained, verifiable outputs. A more comprehensive assessment therefore requires examination of the environment in which research occurs, the extent to which personnel participate in research activities, the outputs they report, and the qualitative experiences that explain why participation and productivity may be facilitated or constrained.

Against this background, the present study examines research culture, research engagement, and self-reported research productivity among teaching and non-teaching personnel of Universidad de Manila. Specifically, it considers institutional research priorities, policy and support, attitudes toward research, collaboration, mentoring, research training, project participation, external partnerships, research-related time allocation, and reported scholarly outputs. It also examines participants' qualitative accounts of the conditions that enable or constrain their participation in research.

The study employs a convergent mixed methods approach in recognition that numerical ratings alone cannot fully explain how an institutional research environment operates. Quantitative results can identify patterns in perceived research culture, engagement, and self-reported productivity, while qualitative accounts can clarify how personnel experience leadership support, collaboration, workload, mentoring, capability development, funding, recognition, and other institutional conditions. Integrating these forms of evidence provides a more comprehensive basis for identifying convergence, complementarity, and possible tensions between favorable institutional perceptions and the practical realities of producing research.

Ultimately, the study seeks to provide an evidence base for an Institutional Research Empowerment Program responsive to the needs of both teaching and non-teaching personnel. Rather than assuming that favorable perceptions constitute a fully developed research culture or that self-rated productivity represents verified scholarly output, the study distinguishes among institutional environment, participation, and reported outcomes. This distinction is essential for identifying where institutional support may be strengthened and for developing interventions that move personnel beyond awareness and training toward sustained research participation, collaboration, completion, dissemination, publication, utilization, and other verifiable forms of research contribution.

STATEMENT OF THE PROBLEM

Developing a sustainable research environment in higher education requires more than formal recognition of research as an institutional function. Universities must also establish conditions that enable personnel to participate meaningfully in research through clear priorities, supportive policies, mentoring, collaboration, capacity development, adequate time, and opportunities to complete, disseminate, and utilize research outputs. Even when research is institutionally valued, engagement and productivity may remain uneven when structural, professional, or resource-related constraints limit participation.

At Universidad de Manila, there is a need to assess how teaching and non-teaching personnel perceive the existing research culture and how actively they engage in research-related activities. This assessment is particularly important because the two personnel groups may have different responsibilities, opportunities, and expectations regarding research. Teaching personnel may have research embedded more directly in academic workload and professional advancement, while non-teaching personnel may contribute through institutional, administrative, technical, planning, policy, extension, quality assurance, or other role-related forms of inquiry. Differences between the groups should therefore be interpreted in relation to their institutional roles rather than assumed to reflect differences in research motivation or capability.

There is also a need to distinguish research engagement from research productivity. Participation in training, projects, collaboration, and research-related activities does not necessarily result in completed studies, conference presentations, publications, utilization, or recognition. In the present study, productivity indicators are based on self-reported ratings rather than verified institutional counts. Accordingly, the findings can describe perceived or self-reported productivity but cannot establish actual rates of institutional research output.

Beyond numerical ratings, understanding the development of research culture requires attention to personnel experiences. Workload, time availability, mentoring, funding, skills, collaboration, institutional recognition, leadership support, and access to external networks may help explain why favorable perceptions of research do or do not translate into sustained engagement and research outputs. A mixed methods assessment is therefore necessary to integrate quantitative patterns with qualitative accounts of enabling conditions and barriers.

Accordingly, this study seeks to assess research culture, research engagement, and self-reported research productivity among the teaching and non-teaching personnel of Universidad de Manila, and to integrate quantitative and qualitative findings to inform the development of an Institutional Research Empowerment Program responsive to identified institutional needs.

Specifically, the study sought to answer the following research questions:

1. What is the perceived level of research culture among teaching and non-teaching personnel in terms of:
 - 1.1 awareness of institutional research vision, agenda, and priorities;
 - 1.2 research policies and institutional support;
 - 1.3 attitudes toward research;
 - 1.4 collaboration and teamwork; and
 - 1.5 mentoring and sharing of expertise?
2. What is the reported level of research engagement among teaching and non-teaching personnel in terms of:
 - 2.1 participation in research training, seminars, and workshops;
 - 2.2 involvement in research projects;
 - 2.3 collaboration with colleagues;
 - 2.4 participation in external research partnerships;
 - 2.5 involvement in community-based or extension research; and
 - 2.6 allocation of time and effort to research alongside primary duties?

3. What is the level of self-reported research productivity among teaching and non-teaching personnel in terms of:
 - 3.1 completion of research studies;
 - 3.2 involvement in ongoing research projects;
 - 3.3 presentation of research outputs;
 - 3.4 publication of research outputs;
 - 3.5 utilization of research for policy, instruction, professional practice, or institutional purposes; and
 - 3.6 receipt of research-related recognition, incentives, or awards?
4. What experiences, barriers, and enabling conditions do teaching and non-teaching personnel report in relation to research culture, research engagement, and research productivity?
5. In what ways do the quantitative and qualitative findings converge, complement one another, or reveal tensions in explaining the research experiences of teaching and non-teaching personnel?
6. What components of an Institutional Research Empowerment Program may be developed based on the integrated findings to strengthen research culture, engagement, capability, support, collaboration, and documented research outputs among teaching and non-teaching personnel?

METHODOLOGY

The study employed a convergent mixed-methods design to assess research culture, research engagement, and self-reported research productivity among teaching and non-teaching personnel at Universidad de Manila. A convergent mixed-methods approach involves the collection and analysis of quantitative and qualitative data within the same general phase of a study, followed by the integration of the two sets of findings during interpretation (Creswell & Creswell, 2018). This design was appropriate because the quantitative component provided numerical descriptions of personnel perceptions and reported research activities, while the qualitative component provided deeper accounts of the experiences, enabling conditions, and barriers associated with research participation.

The two components were initially treated as distinct but complementary sources of evidence. Quantitative findings were used to describe patterns in research culture, engagement, and self-reported productivity, whereas qualitative findings provided contextual explanations for these patterns. The findings from both components were subsequently considered together to identify areas of convergence, complementarity, and tension. Such integration is central to mixed methods research because it enables numerical patterns to be interpreted alongside participants' experiences rather than treating the quantitative and qualitative components as independent studies (Fetters & Tajima, 2022).

The quantitative component involved 100 university personnel, comprising 50 teaching and 50 non-teaching personnel. The equal representation of the two groups allowed the study to describe their respective perceptions and experiences of the university research environment using comparable group sizes. The quantitative findings were therefore based on responses from these 100 participants.

The qualitative component involved 10 participants, consisting of five teaching personnel and five non-teaching personnel. These participants provided more detailed accounts of their experiences with research culture, research engagement, productivity, institutional support, and barriers to research participation. The inclusion of both personnel groups in the qualitative component enabled the study to capture perspectives from individuals whose institutional roles and research opportunities may differ.

The quantitative component used a researcher-developed questionnaire to assess three major areas: research culture, research engagement, and self-reported research productivity. Research culture included perceptions relating to institutional research priorities, policies and support, research attitudes, collaboration, and mentoring. Research engagement included participation in research training, involvement in research projects, collaboration, external research partnerships, community or extension

research, and time allocated to research. Research productivity included self-reported indicators concerning completed studies, ongoing projects, presentations, publications, research utilization, and research-related recognition.

The instrument employed scaled responses, allowing the researchers to summarize participants' perceptions and reported experiences numerically. Because the research productivity items included statements about factual accomplishments, such as completed studies, presentations, publications, and awards, the resulting scores were interpreted as self-reported productivity indicators rather than verified institutional research productivity. Objective productivity is more appropriately determined through documented outputs such as completed research reports, publications, conference records, citations, grants, and other verifiable accomplishments. This distinction is important because Likert-type measures are primarily suited to assessing attitudes, perceptions, or respondent evaluations rather than establishing objective frequencies of factual outcomes (Jebb et al., 2021).

The qualitative component used a researcher-developed semi-structured interview guide. The interview questions were designed to obtain more detailed information regarding participants' experiences of the university research environment, involvement in research activities, perceived research productivity, institutional support, challenges, enabling conditions, and recommendations for strengthening research development.

The semi-structured format allowed the researchers to address common areas across participants while providing sufficient flexibility for respondents to elaborate on issues they considered relevant to their research experiences. This approach was particularly useful for examining circumstances that could not be fully represented through numerical ratings, including workload demands, availability of research time, access to mentoring, funding concerns, capability needs, collaboration, leadership support, and institutional recognition.

Quantitative data were collected through the administration of a researcher-developed survey questionnaire to 100 participants. The survey generated numerical data describing the perceptions and reported experiences of 50 teaching and 50 non-teaching personnel regarding research culture, engagement, and self-reported productivity.

Qualitative data were collected through interviews with 10 participants, composed of five teaching and five non-teaching personnel. The interviews provided participants with an opportunity to explain their research experiences in greater depth and to identify conditions that supported or constrained their involvement in research. The qualitative component was therefore intended to complement the survey by providing explanatory and contextual information concerning the patterns observed in the quantitative findings.

Given that participants were discussing institutional practices, workload, leadership support, resources, and other employment-related experiences, confidentiality should be maintained throughout data collection, analysis, and reporting. Individual responses should be presented in a manner that prevents the identification of participants through their positions, offices, or specific workplace circumstances.

The quantitative data were analyzed using descriptive statistics. Frequencies and percentages were used, where applicable, to summarize respondent characteristics, while weighted means were used to describe the participants' ratings of research culture, research engagement, and self-reported research productivity.

Separate descriptive results were presented for teaching and non-teaching personnel, along with the sample's combined results. These statistics enabled the researchers to identify relatively strong and weak dimensions of the institutional research environment and to describe differences in the numerical ratings between the two personnel groups.

The qualitative interview data were analyzed using thematic analysis. This approach involves systematically examining qualitative data to identify recurring patterns of meaning that are relevant to the research questions (Braun & Clarke, 2021). The interview responses were reviewed and coded, related codes were grouped into broader categories, and recurring patterns were developed into themes representing

participants' experiences of research culture, engagement, productivity, barriers, enabling conditions, and institutional support.

Thematic analysis was particularly appropriate because the study sought to understand how personnel experienced the research environment rather than merely quantify the frequency of particular responses. Themes emerging from teaching and non-teaching participants could therefore help explain quantitative patterns, such as why research may be highly valued institutionally while personnel continue to encounter difficulties with time, workload, mentoring, funding, capability, or publication.

Representative anonymized quotations from participants should accompany the final presentation of major themes where available. Such quotations allow readers to examine how the interpretations are grounded in participants' actual accounts and strengthen transparency in qualitative reporting.

Following the separate analysis of the quantitative and qualitative data, the findings were integrated during interpretation. Quantitative patterns concerning research culture, engagement, and self-reported productivity were considered alongside qualitative themes describing participants' experiences, barriers, and enabling conditions.

Integration focused on identifying convergence, complementarity, and tension between the two sets of findings. Convergence occurs when quantitative and qualitative evidence points toward a similar conclusion. Complementarity occurs when qualitative evidence provides additional explanation or context for a quantitative finding. Tension occurs when the two strands reveal apparently different or more complex patterns that require further interpretation.

The integrated findings ultimately serve as the empirical basis for identifying appropriate components of an Institutional Research Empowerment Program. The program may therefore respond not only to the areas receiving comparatively lower quantitative ratings but also to the contextual needs and barriers articulated by participants through the qualitative component.

Perceived Level of Research Culture Among Teaching and Non-Teaching Personnel

Table 15. Level of Research Culture among Teaching and Non-Teaching

Indicator	Teaching mean	Non-teaching mean	Composite mean	Interpretation
Awareness of the university research vision, agenda, and priorities	3.46	3.18	3.32	Very High
Recognition of research as an important university function	3.55	3.34	3.45	Very High
Clear policies and guidelines supporting research	3.38	3.07	3.23	High
Institutional encouragement to engage in research	3.29	2.94	3.12	High
Collaboration and teamwork in research activities	3.21	2.90	3.06	High
Supportive environment for mentoring and sharing expertise	3.15	2.82	2.99	High
Overall mean	3.34	3.04	3.19	High

Table 1 presents the perceived level of research culture among teaching and non-teaching personnel of Universidad de Manila across six indicators: awareness of the university research vision, agenda, and priorities; recognition of research as an important university function; clarity of research policies and guidelines; institutional encouragement to engage in research; collaboration and teamwork; and mentoring and sharing of expertise. The combined overall mean of 3.19 was interpreted as High, indicating that

respondents generally perceive the university as having a favorable institutional orientation toward research.

Among the indicators, recognition of research as an important university function obtained the highest composite mean of 3.45, interpreted as Very High. Teaching personnel reported a mean of 3.55, while non-teaching personnel reported 3.34. This result suggests that research is strongly recognized across personnel groups as an important component of the university's institutional mandate. Such recognition is an essential foundation for research culture because personnel are more likely to engage with research when it is visibly embedded within institutional priorities, professional expectations, and organizational discourse.

The finding is consistent with the Philippine higher education literature, which emphasizes that a research culture begins with a clear institutional commitment to research and must subsequently be reinforced by appropriate structures and support systems. Quitoras and Abuso (2021) found that research-oriented higher education institutions commonly demonstrate strong leadership commitment, clearly articulated research priorities, capability-building mechanisms, incentives, and institutional structures that sustain scholarly activity. More recent evidence from Philippine higher education likewise indicates that institutional support systems and the research working environment are significantly associated with faculty research productivity (Camilon et al., 2024).

Awareness of the university's research vision, agenda, and priorities received the second-highest composite mean of 3.32, which is also interpreted as Very High. Teaching personnel reported a mean of 3.46 compared with 3.18 among non-teaching personnel. The relatively favorable result indicates that respondents generally recognize the university's research directions and priorities. Awareness of an institutional research agenda can foster greater alignment between individual research interests and organizational priorities, particularly when personnel understand how their work can advance institutional, disciplinary, community, or national development goals.

A clearly communicated research agenda may also provide personnel with a framework for identifying appropriate research problems and opportunities. However, awareness alone does not establish whether personnel have sufficient opportunity, capability, resources, or motivation to pursue research aligned with the agenda. Camilon et al. (2024) demonstrated that research productivity is associated not only with individual motivation but also with institutional support and the broader research working environment. Consequently, the high level of awareness observed in the present study should be interpreted as an institutional strength that requires complementary mechanisms to translate awareness into sustained research activity and outputs.

Clear policies and guidelines supporting research obtained a composite mean of 3.23, interpreted as High. Teaching personnel reported a mean of 3.38, whereas non-teaching personnel reported 3.07. This indicates that respondents generally perceive the university as having research-related policies and guidelines, although the rating is lower than the institutional recognition of research and awareness of research priorities.

The difference between the ratings for recognizing research as important and perceiving policies as clear is analytically meaningful. It suggests that the normative or symbolic dimension of research culture may be stronger than some operational mechanisms through which research is carried out. Personnel may clearly understand that the university values research, yet be somewhat less certain about the policies, procedures, incentives, responsibilities, or support mechanisms that govern research activity.

Ocampo et al. (2022) identified institutional support, research funding, mentoring, reward systems, and access to information resources as foundational drivers within the system of factors influencing research productivity in higher education institutions. Their findings emphasize that the institutionalization of research requires not merely a statement that research is important, but also operational systems that enable researchers to navigate proposal development, funding, implementation, dissemination, and publication. The UDM finding therefore suggests that maintaining clear, accessible, and consistently implemented

research policies is important for strengthening the transition from institutional research orientation to research practice.

Institutional encouragement to engage in research obtained a composite mean of 3.12 and was interpreted as High. Teaching personnel reported a mean of 3.29, while non-teaching personnel reported 2.94. The result indicates generally favorable perceptions of encouragement to participate in research but also suggests that the experience of such encouragement may not be equally strong across personnel classifications.

Institutional encouragement can take different forms, including leadership support, research incentives, training opportunities, recognition systems, funding, workload arrangements, technical assistance, and opportunities for dissemination. Camilon et al. (2024) found that institutional support systems, including policies, incentives, research programs, budgeting, and external funding, were important components of the research environment in Philippine higher education. Similarly, Elechicon and Paris (2026), examining Philippine state university faculty, found that research activity was highly dependent on institutional support systems and affected by structural pressures, including workload policies and administrative processes.

The comparatively lower mean among non-teaching personnel may therefore warrant institutional attention. However, it should not be interpreted as evidence that non-teaching personnel are less motivated toward research. Their research expectations and opportunities may differ from those of teaching personnel. Faculty members may encounter research requirements through academic workload, promotion, accreditation, or disciplinary expectations, whereas non-teaching personnel may have fewer formally designated pathways for conducting or disseminating research. Institutional encouragement may therefore need to be differentiated according to personnel roles.

Collaboration and teamwork in research activities received a composite mean of 3.06, interpreted as High. Teaching personnel reported a mean of 3.21 compared with 2.90 among non-teaching personnel. Although the overall result remains favorable, collaboration was among the lower-rated components of research culture.

Research collaboration is particularly important because scholarly work increasingly depends on complementary expertise, shared methodological skills, interdisciplinary perspectives, access to networks, and collective problem-solving. Owan et al. (2024) found that collaboration played an important role in the relationship between institutional support, mentoring, institutional culture, and research productivity among academic staff. Their findings suggested that mentorship and institutional support may become more consequential when they operate within a positive collaborative culture.

The relatively lower collaboration rating among UDM personnel may therefore indicate an opportunity to strengthen formal and informal research networks. Collaborative mechanisms might include research clusters, interdisciplinary teams, writing groups, joint institutional projects, research mentoring pairs, communities of practice, or partnerships that intentionally bring together teaching and non-teaching personnel. Such approaches may be particularly valuable for non-teaching personnel whose professional expertise in planning, administration, information management, extension, student services, quality assurance, technology, or institutional operations can contribute to applied and institutional research.

The lowest-rated indicator was supportive environment for mentoring and sharing expertise, with a composite mean of 2.99, although this remained within the High category. Teaching personnel reported a mean of 3.15, while non-teaching personnel reported 2.82. The result identifies mentoring and expertise sharing as the comparatively weakest dimension of the research culture assessed in the study.

This finding is significant because mentoring provides a mechanism through which institutional expectations are translated into practical research capability. Beginning and less experienced researchers often require guidance in research problem formulation, methodology, ethics review, data analysis, academic writing, publication, and response to peer review. Without sustained mentoring, personnel may attend training and acknowledge the importance of research but still struggle to progress from research interest to completed, disseminated output.

Recent evidence underscores the relational nature of effective research mentoring. Owan et al. (2024) found that mentorship alone did not necessarily produce higher research productivity; its contribution operated through a favorable institutional culture and collaboration. This suggests that mentoring should not be understood as an isolated assignment of an experienced researcher to a novice. Effective mentoring is more likely to operate within an environment that supports collaboration, access to expertise, continuity of guidance, and opportunities to apply research skills.

The Philippine experience reported by Elechicon and Paris (2026) similarly portrays research as a relational and infrastructural practice in which collegial networks, mentoring, workload arrangements, and institutional support interact. Their findings highlight that research capability is not solely an individual attribute. Researchers operate within systems that can either provide or restrict the time, relationships, resources, and opportunities needed for sustained scholarly activity. The comparatively lower mentoring score at UDM therefore points to an area where formal institutional intervention may have substantial developmental value.

Across all indicators, teaching personnel reported higher means than non-teaching personnel. The overall mean for teaching personnel was 3.34, compared with 3.04 for non-teaching personnel, resulting in a descriptive difference of 0.30 points. The same direction is evident across each of the six indicators.

The difference may also reflect variation in institutional roles rather than differences in commitment to research. Research is traditionally incorporated into the responsibilities of teaching personnel through academic promotion, professional evaluation, accreditation, instruction, extension, and scholarly publication. Non-teaching personnel may instead have primary responsibilities in administration, technical services, planning, research management, student services, library services, extension, quality assurance, finance, information systems, or other institutional functions. Their opportunities for formal research participation may consequently be different.

The finding therefore suggests a need for a more inclusive conception of institutional research culture. Rather than expecting teaching and non-teaching personnel to demonstrate identical forms of scholarly activity, the university may consider differentiated pathways through which personnel contribute to knowledge generation. Non-teaching personnel can participate in institutional research, program evaluation, administrative studies, policy analysis, service improvement research, community-based studies, technical investigations, data analytics, and other forms of inquiry that correspond with their professional functions.

When the six indicators are considered together, an important institutional pattern becomes visible. The highest ratings concern recognition of research as an important university function and awareness of the research vision and agenda, whereas the lower ratings concern mentoring, collaboration, and institutional encouragement. This suggests that UDM may have established a relatively strong normative orientation toward research, but some of the relational and operational mechanisms required to sustain research practice remain comparatively less developed.

This distinction between recognizing research and enabling research is important. A mature research culture requires more than personnel awareness of institutional goals. It requires accessible mentoring, collaborative networks, protected or realistic research time, research development opportunities, clear procedures, funding and technical support, incentives, and pathways for dissemination and publication. Ocampo et al. (2022) similarly demonstrated that institutional support, research funding, mentoring, rewards, and information resources operate as interconnected drivers of research productivity. Camilon et al. (2024) further showed, in the Philippine context, that institutional support and the research work environment are important for research productivity.

The results therefore should not be interpreted simply as confirmation that the university already possesses a fully established research culture. Rather, they indicate that the participating personnel perceive a favorable research orientation, particularly in terms of recognizing the institutional importance of research. The comparatively low scores for mentoring, collaboration, and encouragement indicate areas where

institutional structures can be strengthened to translate positive research attitudes and awareness into sustained participation and documented outputs.

This interpretation is consistent with recent qualitative evidence from the Philippines. Elechicon and Paris (2026) found that faculty research in state universities was intertwined with institutional structures, collegial relationships, mentoring, workload, and opportunities for professional advancement. They argue that strengthening research requires system-level support rather than reliance on compliance-oriented expectations alone. The UDM findings similarly suggest that research culture should be understood as an institutional ecosystem in which policy, leadership, collaboration, mentoring, workload, and resources operate together.

From an institutional development perspective, the findings support strengthening a structured research mentoring system, expanding collaborative research opportunities, improving the communication and accessibility of research policies, and developing research pathways appropriate for both teaching and non-teaching personnel. Mentoring could extend from proposal conceptualization through methodology, ethics review, implementation, analysis, manuscript development, submission, and revision. Research clusters and interdisciplinary teams could likewise provide mechanisms for expertise sharing and reduce the isolation commonly experienced by beginning researchers.

Table 1 indicates that the participating personnel perceive the research culture at Universidad de Manila as High, with a composite mean of 3.19. The strongest perceived dimensions are the recognition of research as an important institutional function and awareness of the university's research vision, agenda, and priorities. In contrast, mentoring and expertise sharing, collaboration, and institutional encouragement received comparatively lower ratings. Teaching personnel consistently reported higher descriptive means than non-teaching personnel, although the statistical significance of these differences cannot be established from the present analysis.

The findings therefore portray an institution in which research appears to be strongly recognized at the level of institutional orientation but where further development of the relational and enabling infrastructure may strengthen the translation of this orientation into sustained research practice. For the proposed Institutional Research Empowerment Program, the evidence particularly supports interventions involving structured mentoring, collaborative research networks, differentiated support for teaching and non-teaching personnel, clearer pathways from research training to project completion, and institutional mechanisms that enable personnel to convert research interest and awareness into verifiable scholarly contributions.

Self-Reported Level of Research Engagement among Teaching and Non-Teaching Personnel

Table 16. Self-Reported Level of Research Engagement

Indicator	Teaching mean	Non-teaching mean	Composite mean	Interpretation
Participation in university research training, seminars, or workshops	3.42	3.05	3.24	High
Active involvement in research projects within unit or department	3.30	2.88	3.09	High
Collaboration with colleagues in research activities	3.28	2.94	3.11	High
Research partnerships with external institutions or organizations	3.05	2.70	2.88	High
Contribution to community-based or extension research	3.18	2.85	3.02	High

Allocation of time and effort to research alongside primary duties	3.12	2.76	2.94	High
Overall mean	3.23	2.86	3.05	High

Table 2 presents the self-reported level of research engagement among teaching and non-teaching personnel of Universidad de Manila across six areas: participation in research training, involvement in departmental or unit-based research projects, collaboration with colleagues, external research partnerships, community-based or extension research, and allocation of time and effort to research alongside primary duties. The combined overall mean of 3.05 was interpreted as High, suggesting that respondents generally reported active participation in research-related activities within the university.

Teaching personnel obtained an overall mean of 3.23, while non-teaching personnel reported a mean of 2.86, representing a descriptive difference of 0.37 points. Teaching personnel reported higher means across all six indicators. However, because the quantitative analysis was limited to descriptive statistics, this difference cannot be regarded as statistically significant. No standard deviations, confidence intervals, effect sizes, or inferential group-comparison tests were reported. The results therefore indicate a consistent descriptive pattern rather than evidence that personnel classification independently accounts for differences in research engagement.

Among the six indicators, participation in university research training, seminars, or workshops obtained the highest composite mean of 3.24, interpreted as High. Teaching personnel reported a mean of 3.42, compared with 3.05 among non-teaching personnel. This finding suggests that institutional capacity-building activities constitute the most accessible and frequently reported form of research engagement among respondents.

The relatively strong participation in training is an institutional advantage because seminars, workshops, and other capability-development activities can introduce personnel to research concepts, methodologies, data analysis, scholarly writing, publication procedures, ethics, and emerging research practices. Research capability is an important individual-level factor affecting engagement, particularly in developing higher education systems where methodological confidence and previous research experience may vary substantially among personnel (Heng et al., 2020).

However, participation in research training should not be treated as equivalent to sustained research engagement or productivity. Training represents an enabling activity rather than a research output. Palmiano (2024), examining faculty research engagement and productivity in a Philippine higher education institution, demonstrated that involvement in research-related activities did not automatically translate into comparable levels of completed, presented, published, cited, or recognized outputs. The implication for UDM is that research training becomes more valuable when participants are given structured opportunities to apply newly acquired competencies to real-world research projects.

The relatively high training score should therefore be interpreted as evidence that UDM has an accessible entry point to its research and development system. The institutional challenge is to establish continuity after training. Workshops may be systematically linked to proposal development, mentoring, ethics review, data collection, data analysis, manuscript preparation, presentation, publication, and research utilization. Without such progression, training may remain an episodic activity rather than becoming a pathway toward sustained scholarly engagement.

Collaboration with colleagues in research activities received the second-highest composite mean of 3.11, interpreted as High. Teaching personnel reported a mean of 3.28, while non-teaching personnel reported 2.94. This finding indicates that respondents generally participate in research through collegial relationships and collaborative activities.

Collaboration is particularly important in institutional research development because individual researchers seldom possess all the theoretical, methodological, analytical, technical, and writing skills needed for

increasingly complex research projects. Collaborative research allows personnel to combine complementary expertise, share workload, develop research confidence, and gain access to wider professional networks. Ocampo et al. (2022) identified institutional support, mentoring, funding, reward systems, and access to research resources as interconnected conditions influencing research productivity in higher education. Collaborative structures can provide a practical mechanism for sharing these resources among researchers.

Recent Philippine evidence also emphasizes the relational character of research engagement. Elechicon and Paris (2026), examining science faculty members in Philippine state universities, found that research was experienced as a relational and infrastructural practice dependent on collegial networks, mentoring, institutional support, and workable organizational arrangements. Their findings indicate that research engagement cannot be explained solely by individual willingness or capability because research activity is embedded in relationships and institutional systems.

The relatively favorable collaboration rating at UDM is therefore encouraging, although it should be considered alongside the earlier research-culture finding that collaboration and mentoring received lower ratings than the institutional recognition of research. The two tables do not establish a statistical relationship between research culture and engagement, but, descriptively, they suggest that strengthening collaborative mechanisms may further support the shift from favorable attitudes toward research to active project participation.

Active involvement in research projects within the respondent's unit or department obtained a composite mean of 3.09, interpreted as High. Teaching personnel reported a mean of 3.30, while non-teaching personnel reported 2.88. This indicates that research engagement extends beyond participation in training and includes involvement in actual research activities within institutional units.

Departmental or unit-based research can provide an important bridge between individual capacity building and institution-wide scholarly productivity. Such projects are often more accessible because researchers can work with colleagues who share disciplinary, administrative, professional, or institutional concerns. Internal research projects may also require fewer external coordination mechanisms than inter-institutional studies.

The result supports developing unit-based research clusters in which personnel work on defined institutional, disciplinary, community, or professional research priorities. For teaching personnel, such projects may address instruction, disciplinary knowledge, curriculum, student learning, extension, or professional practice. For non-teaching personnel, research opportunities may focus on institutional planning, administrative systems, quality assurance, information services, student services, human resources, community engagement, technology, or other areas directly related to their functions.

This differentiated understanding is important because the lower engagement reported by non-teaching personnel should not automatically be interpreted as weaker research motivation. Faculty members usually have research incorporated more explicitly into academic performance systems, promotion criteria, accreditation requirements, and professional expectations. Non-teaching personnel may not have equivalent formal opportunities or incentives to conceptualize their professional work as research. A role-sensitive research program may therefore broaden institutional participation by recognizing applied and institutional inquiry as legitimate contributions to the research ecosystem.

Contribution to community-based or extension research obtained a composite mean of 3.02, also interpreted as High. Teaching personnel reported a mean of 3.18 compared with 2.85 among non-teaching personnel. The result indicates that respondents generally reported involvement in research connected with communities or extension-related activities, although participation was somewhat lower than engagement in training, collaboration, and internal projects.

Community-based research can strengthen the relationship between university scholarship and societal needs by enabling personnel to generate evidence concerning programs, populations, services, community conditions, and intervention outcomes. It may also facilitate the translation of institutional expertise into

practical applications. Within Philippine higher education, research and extension are often treated as interconnected functions, particularly where universities are expected to contribute to local and national development.

Elechicon and Paris (2026) found that Philippine science faculty described research as a catalyst that informs instruction and anchors extension programs, demonstrating that research need not operate separately from other university functions. For UDM, community and extension research may therefore provide an opportunity to engage both teaching and non-teaching personnel in inquiries directly connected to Manila communities, public service concerns, institutional partnerships, and professional practice.

Allocation of time and effort to research alongside primary duties obtained a composite mean of 2.94, interpreted as High, but it was the second-lowest indicator in the table. Teaching personnel reported a mean of 3.12, while non-teaching personnel reported 2.76. The comparatively lower rating is particularly important because available time is one of the most persistent structural conditions affecting research engagement.

Personnel may possess research interest, attend training, collaborate with colleagues, and recognize research as institutionally important while still finding it difficult to devote sustained time to project implementation. Research requires periods of concentrated activity for reviewing literature, developing protocols, collecting and analyzing data, writing manuscripts, responding to reviewers, and managing research-related administrative requirements. When these activities must be performed in addition to substantial teaching, administrative, technical, or service responsibilities, engagement may become difficult to sustain.

Research from developing higher education contexts consistently identifies workload and time constraints as important barriers to academic research engagement (Heng et al., 2020). More recent research has likewise shown that working-time characteristics and perceived time pressure can affect research engagement. Van Tienoven et al. (2024), for example, found that time pressure and reduced control over working time negatively influenced research engagement among doctoral researchers, illustrating the broader importance of time availability and autonomy for sustained scholarly work.

The issue is also evident in Philippine higher education. Elechicon and Paris (2026) found that faculty members navigated substantial structural pressures involving workload policies, bureaucratic processes, and competing academic responsibilities. Their findings suggest that encouraging research without establishing realistic workload arrangements may place the burden of scholarly productivity largely on individual personnel.

For UDM, the comparatively lower time-allocation rating suggests that research empowerment should include mechanisms addressing when research is expected to occur, not simply what personnel are expected to accomplish. Depending on institutional policy and available resources, this could involve protected research time, workload credits, designated research periods, milestone-based releases, project-specific arrangements, or administrative mechanisms that reduce unnecessary procedural demands. Such interventions would need to be differentiated according to teaching and non-teaching responsibilities.

Research partnerships with external institutions or organizations received the lowest composite mean at 2.88, although it remained within the High category. Teaching personnel reported a mean of 3.05, while non-teaching personnel reported 2.70. The finding suggests that respondents' research engagement is comparatively stronger within the university than through external research networks.

External partnerships are significant because they can provide access to expertise, laboratories, datasets, funding opportunities, interdisciplinary teams, communities, publication networks, and larger research programs that may not be available within a single institution. Collaboration beyond institutional boundaries can also expand the visibility and potential impact of research. At the national level, Gopez et al. (2024) demonstrated that international and corporate collaboration are important dimensions differentiating the research profiles of productive Philippine higher education institutions.

The comparatively lower external-partnership score may therefore indicate that UDM's current research engagement is principally internally oriented. This is not necessarily a weakness in an institution that is still strengthening its research ecosystem; internal capability and collaboration can provide the foundation for later external engagement. Nevertheless, expanding external partnerships would be important if the university seeks to increase multidisciplinary research, external funding, publication opportunities, research visibility, and participation in broader research networks.

The difference between internal research training (composite mean: 3.24) and external partnerships (mean: 2.88) is particularly informative. It suggests a research-engagement pathway that is currently stronger at the institutional entry level than at the network-expansion level. Respondents appear to have greater access to activities organized within the university than to research opportunities that require connections outside the institution.

A similar distinction exists between participation in training and allocation of research time. Personnel report relatively high participation in capacity-building activities but lower ability to allocate time to research alongside their primary responsibilities. This pattern suggests that access to training does not necessarily remove structural barriers to sustained engagement. The institutional challenge is therefore not simply to increase the number of seminars or workshops but to ensure that personnel have pathways, mentoring, time, collaborative support, and resources to apply what they learn.

Palmiano (2024) provides a relevant comparison from the Philippines. The study found that faculty research engagement and actual research productivity can differ substantially, with relatively few approved projects progressing to completed, presented, published, cited, or recognized outputs. This reinforces the need to evaluate research development as a process that extends from capability building through completion and dissemination, rather than using seminar participation as the principal indicator of an active research culture.

Across the six indicators, teaching personnel consistently reported descriptively higher engagement than non-teaching personnel. The largest numerical difference was observed in active involvement in research projects, with teaching personnel reporting 3.30 and non-teaching personnel 2.88, a difference of 0.42 points. Participation in training differed by 0.37 points, collaboration by 0.34 points, external partnerships by 0.35 points, community or extension research by 0.33 points, and research-time allocation by 0.36 points.

The consistency of these differences suggests that teaching personnel may have greater exposure to formal research opportunities across several dimensions. However, because no inferential statistical comparison was conducted, these differences cannot be classified as statistically significant. More importantly, personnel classification may reflect structural differences in job design. Teaching personnel commonly encounter research through promotion criteria, academic workload, accreditation, graduate education, professional associations, and disciplinary expectations. Non-teaching personnel may have fewer formally established research pathways despite possessing professional expertise that could contribute to institutional knowledge production.

Consequently, the findings argue for differentiated rather than identical research-engagement strategies. Teaching personnel may require stronger support for disciplinary research, publication, grants, advanced methodological development, and externally collaborative scholarship. Non-teaching personnel may benefit from structured pathways into institutional, administrative, policy, technical, evaluation, and service-related research, together with appropriate mentoring and recognition of these outputs within their professional roles.

When interpreted alongside the research-culture findings, a coherent descriptive pattern emerges. Personnel reported a High research culture and High research engagement, suggesting that favorable perceptions of research are accompanied by participation in research-related activities. However, the present descriptive analysis cannot establish that research culture statistically predicts engagement. Such a conclusion would require appropriate correlational or multivariable analysis. Both dimensions are rated positively, though certain operational constraints remain evident.

The most important pattern in Table 2 is therefore not simply that overall engagement is High. Rather, engagement is uneven across activity types. Institutionally accessible activities, particularly research training, internal project participation, and collegial collaboration, received relatively stronger ratings. Activities requiring sustained personal time or access to networks beyond the university received comparatively lower ratings. This suggests that the university has established meaningful opportunities for internal research participation but may need stronger mechanisms for converting that participation into sustained, externally connected research activity.

From the perspective of the proposed Institutional Research Empowerment Program, the results point to several interconnected priorities. First, existing research training should be retained but connected with mentoring and concrete project milestones. Second, internal collaborative research groups may be strengthened to facilitate sustained participation following training. Third, protected or realistically allocated research time should be considered so that research is not dependent solely on work undertaken beyond primary responsibilities. Fourth, external partnerships should be expanded through inter-university collaboration, professional networks, community organizations, government agencies, and potential funding partners. Fifth, research opportunities should be differentiated according to the roles and professional functions of teaching and non-teaching personnel.

The participating UDM personnel reported a high level of research engagement, with a combined mean of 3.05. Participation was strongest in university research training, seminars, and workshops, followed by collaboration with colleagues and involvement in unit-based research projects. Community or extension research also received a favorable assessment. In contrast, allocation of time for research and partnerships with external institutions received comparatively lower ratings. Teaching personnel reported an overall mean of 3.23 compared with 2.86 among non-teaching personnel, although this difference remains descriptive rather than statistically established.

The findings indicate that research engagement at UDM appears strongest where opportunities are internally organized and readily accessible. The next stage of institutional research development should therefore focus on strengthening the transition from participation in training and internal activities toward sustained project implementation, protected research time, external collaboration, dissemination, and documented research outputs. In this way, research engagement can develop from participation in institutional activities into a more continuous and productive research pathway for both teaching and non-teaching personnel.

Level of Self-Reported Research Productivity among Teaching and Non-Teaching Personnel

Table 17. Self-Reported Research Productivity Indicators

Indicator	Teaching mean	Non-teaching mean	Composite mean	Interpretation
Completed at least one research study in the past three years	3.18	2.60	2.89	High
Currently involved in an ongoing research project	3.12	2.55	2.84	High
Presented research outputs in conferences or institutional events	3.25	2.70	2.98	High
Published research outputs in journals, proceedings, or institutional publications	3.05	2.48	2.77	High
Research outputs utilized for policy, instruction, or professional practice	3.20	2.72	2.96	High

Received research-related recognition, incentives, or awards	3.00	2.40	2.70	High
Overall mean	3.13	2.57	2.85	High

Table 3 presents the self-reported research productivity of teaching and non-teaching personnel across six indicators: completion of a research study within the past three years, current involvement in an ongoing project, presentation of research outputs, publication, research utilization, and receipt of research-related recognition or awards. The combined overall mean was 2.85, interpreted as High. Teaching personnel obtained an overall mean of 3.13, while non-teaching personnel obtained 2.57. Although all composite indicators were classified as High according to the study's interpretive scale, the numerical pattern reveals important differences in the types of research accomplishments reported by respondents.

The results require an important methodological qualification. The indicators refer to factual accomplishments that ordinarily can be counted or independently verified. A respondent either completed a study, published an article, presented a paper, or received an award within a specified period, and the number of such outputs can normally be established from institutional or bibliographic records. Because the present study measured these accomplishments using scaled self-reports, the means should not be interpreted as actual productivity rates. Heaton-Shrestha et al. (2023), in a systematic review of interventions intended to enhance academic research productivity, found that research productivity is commonly measured through frequencies or staff-output ratios involving publications, presentations, and research funding. In the Philippine context, Palmiano (2024) similarly assessed identifiable outputs, including approved and completed studies, presentations, publications, citations, and awards. The present findings are therefore best understood as respondents' assessments of their research accomplishment rather than audited institutional productivity.

Among the six indicators, presentation of research outputs in conferences or institutional events received the highest composite mean of 2.98. Teaching personnel reported a mean of 3.25, compared with 2.70 among non-teaching personnel. This suggests that dissemination through presentations represents the most prominent form of self-reported research productivity among respondents.

Presentations can serve as an important intermediate stage in the research process. Conferences and institutional research events provide researchers with opportunities to communicate findings, obtain feedback, establish professional networks, and refine manuscripts before publication. They can therefore strengthen both individual researcher development and institutional research visibility. Heaton-Shrestha et al. (2023) identified conference presentations alongside publications and research funding as among the most frequently used objective measures of academic research productivity.

However, presentations should not be treated as equivalent to peer-reviewed publications. A research output may be presented without subsequently being converted into a journal article, book chapter, proceedings paper, or other durable scholarly product. For institutional monitoring, UDM may therefore benefit from tracing the progression of research outputs from completion to presentation and from presentation to publication. Such monitoring would reveal whether dissemination events function primarily as end points or as stages in a broader scholarly production pathway.

Research utilization received the second-highest composite mean, 2.96, with teaching personnel reporting 3.20 and non-teaching personnel reporting 2.72. The finding suggests that respondents perceive their research as being applied to policy, instruction, or professional practice. This is potentially significant because research productivity should not be understood exclusively in terms of publication volume. Research can also generate institutional and societal value when findings inform teaching practices, administrative procedures, policy formulation, community programs, professional services, or organizational decision-making.

For a local university, documented research utilization may be particularly relevant because institutional research can address practical concerns involving students, instruction, administration, community engagement, public service, and local development. Research utilization can therefore complement

conventional scholarly outputs by demonstrating that knowledge generated within the university contributes to institutional improvement or professional practice.

Nevertheless, utilization is also an area where objective documentation is desirable. A respondent's perception that research has been used does not establish the nature, extent, or consequence of that utilization. Future assessments could document policy memoranda informed by research, revised curricula or instructional materials, adopted institutional procedures, extension programs based on findings, technical guidelines, or other identifiable applications. This would allow the university to differentiate claimed utilization from demonstrable research impact.

Completion of at least one research study in the past three years obtained a composite mean of 2.89, with teaching personnel reporting 3.18 and non-teaching personnel 2.60. The finding indicates a generally favorable self-assessment of research completion but again should not be interpreted as a completion rate. Because the item specifically refers to completing "at least one research study," a frequency or dichotomous measure would provide clearer information regarding how many respondents actually completed research during the specified period.

The distinction is illustrated by Palmiano (2024), who examined documented faculty research activity and found that only 25.6% of approved proposals in the institution studied progressed to completion, while smaller percentages reached presentation, publication, citation, or recognition. The study demonstrates that the transition from an approved or initiated project to a completed research output can involve considerable attrition. For UDM, documenting the number of proposals initiated, projects approved, studies completed, outputs presented, and manuscripts published would therefore provide a more precise understanding of where researchers encounter difficulty in the research process.

Currently being involved in an ongoing research project obtained a composite mean of 2.84. Teaching personnel reported a mean of 3.12, while non-teaching personnel reported 2.55. The finding indicates that respondents generally perceive themselves as actively participating in current research activities, although the score is slightly lower than their reported study completion.

Ongoing project involvement is an important indicator of continuity in an institutional research ecosystem, as research productivity depends not only on past accomplishments but also on an active pipeline of studies likely to generate future outputs. However, ongoing projects should be distinguished from completed outputs. Institutional monitoring could therefore classify projects by stage, such as proposal development, ethics review, data collection, analysis, manuscript preparation, completion, presentation, publication, and utilization.

Such pipeline monitoring would help determine whether research projects progress efficiently or remain at particular stages for extended periods. This is particularly relevant in light of the preceding research-engagement findings, where participation in training and internal activities was relatively strong, while time allocated to research was comparatively low. The present descriptive findings cannot establish a causal relationship between time constraints and project completion, but they suggest a useful issue for subsequent institutional assessment.

Publication of research outputs in journals, proceedings, or institutional publications obtained a composite mean of 2.77. Teaching personnel reported 3.05, whereas non-teaching personnel reported 2.48. Although classified as High according to the study's scale, publication was the second-lowest productivity indicator.

The comparatively lower publication score is consequential because publication represents one of the most visible and verifiable forms of scholarly productivity. Publications make research accessible beyond the originating institution, permit scrutiny through editorial and peer-review processes, contribute to disciplinary knowledge, and increase institutional research visibility. At the institutional level, bibliometric assessments commonly use publication volume, citations, journal quality, authorship, and collaboration patterns to evaluate research productivity. Gopez et al. (2024), for example, analyzed Philippine higher education institutions using SciVal indicators, including research output, number of authors, citations, journal impact, and international and corporate collaboration.

The difference between the relatively higher presentation score of 2.98 and the publication score of 2.77 may indicate a potential conversion gap between disseminating research in conferences or institutional events and producing publications. This difference is descriptive and cannot establish that presented studies failed to reach publication, because the instrument did not track individual outputs longitudinally. Nevertheless, it identifies a useful institutional question: what proportion of completed and presented UDM research ultimately becomes a published scholarly output?

Palmiano's (2024) Philippine findings provide a relevant comparison because the documented research pipeline showed progressively fewer outputs from approval to completion, presentation, publication, citation, and recognition. This pattern underscores that research empowerment must extend beyond proposal development and conference participation. Publication requires sustained support in manuscript development, methodological refinement, statistical analysis, journal selection, language editing, submission procedures, and response to peer review.

Publication support could therefore constitute a specific component of the Institutional Research Empowerment Program. Research writing clinics, manuscript mentoring, internal peer review, statistical and methodological consultation, journal matching, publication ethics orientation, and structured assistance in responding to reviewer comments may help personnel convert completed studies into publishable manuscripts.

Receipt of research-related recognition, incentives, or awards obtained the lowest composite mean at 2.70. Teaching personnel reported a mean of 3.00, while non-teaching personnel reported 2.40. This indicator also produced the largest descriptive difference between the two personnel groups at 0.60 points.

The comparatively low recognition score may reflect several possibilities, including limited availability of awards, fewer outputs qualifying for recognition, differences in eligibility, varying awareness of institutional incentives, or the fact that formal recognition usually occurs later in the research production pathway. The present data cannot determine which explanation applies. Recognition should therefore not be treated as a direct or complete measure of scholarly quality.

Nevertheless, incentives and recognition can form part of an enabling research environment. Ocampo et al. (2022) identified reward systems, alongside funding, mentoring, institutional support, and access to information resources, as interconnected drivers of higher education research productivity. Camilon et al. (2024) likewise reported that institutional support systems and the research working environment were associated with faculty research productivity in a Philippine higher education setting. Recognition mechanisms may therefore reinforce research engagement when they are transparent, accessible, and linked to meaningful outputs rather than merely to participation in research activities.

The comparatively lower recognition rating among non-teaching personnel deserves particular attention. Existing institutional incentive systems may be designed primarily around conventional faculty outputs such as journal publications and conference papers. If non-teaching personnel are expected to participate in institutional knowledge production, recognition mechanisms may need to acknowledge role-appropriate outputs such as policy studies, program evaluations, technical reports, administrative innovations, data analytics, service-improvement research, community studies, and other documented research contributions aligned with their professional responsibilities.

Across all six productivity indicators, teaching personnel reported higher descriptive means than non-teaching personnel. The overall difference was 0.56 points, with means of 3.13 and 2.57, respectively. Indicator-level differences were 0.58 points for completed studies, 0.57 for ongoing projects, 0.55 for presentations, 0.57 for publications, 0.48 for research utilization, and 0.60 for research-related recognition.

This consistent pattern is notable and is larger than the teaching–non-teaching descriptive differences observed for research culture and research engagement in the preceding tables. However, no inferential tests were conducted, and no measures of variability were reported. The results, therefore, do not establish a statistically significant difference in productivity between teaching and non-teaching personnel.

More importantly, the observed gap should not automatically be attributed to differences in research ability, commitment, or motivation. Teaching personnel commonly work within academic systems where research is directly connected with promotion, academic rank, workload, accreditation, graduate education, professional visibility, and disciplinary expectations. Non-teaching personnel may have primary responsibilities that do not formally require journal publication or conference presentation and may have less protected time, fewer research incentives, or fewer established pathways for producing conventional academic outputs.

Elechicon and Paris (2026), examining Philippine state university faculty, illustrate how research productivity is embedded within institutional roles, workload structures, collegial relationships, and available support systems. Their findings reinforce the principle that research performance should not be interpreted in isolation from the organizational conditions under which personnel work. For UDM, differences between teaching and non-teaching personnel should therefore be examined in relation to research expectations, job mandates, workload, access to mentoring, incentives, and opportunities for participation.

The pattern across Tables 1 to 3 also provides an important descriptive institutional perspective. Research culture received an overall mean of 3.19, research engagement 3.05, and self-reported productivity 2.85. These values appear to decline progressively from perceived culture to engagement and then to productivity. Because these are different constructs measured through different sets of items and no inferential analysis was conducted, this pattern should not be described as a statistically established decline or causal sequence. Nevertheless, it raises an important institutional question about the extent to which favorable perceptions of research and participation in research activities translate into documented outputs.

The present table provides further support for that concern. Internal activities such as training and collaboration were relatively strong in the engagement findings, whereas publication and research recognition were among the lower-productivity indicators. The combined pattern suggests that the university may have made progress in establishing awareness, institutional orientation, and opportunities for research participation, while the mechanisms needed to consistently convert engagement into completed, published, recognized, and verifiable outputs require further development.

This distinction is consistent with the systematic review by Heaton-Shrestha et al. (2023), which concluded that increasing research capacity is only one component of productivity growth. The reviewed interventions included mentoring, protected time, writing support, collaborative structures, funding, and other institutional measures, while productivity outcomes were generally assessed through observable outputs such as publications, presentations, and grants. Capacity building is therefore most useful when linked to structures that support researchers through the complete production process.

For the proposed Institutional Research Empowerment Program, the findings indicate that support should be organized around a research-output pathway rather than isolated activities. Personnel could be supported through a progression from capability building and proposal development to mentoring, project implementation, research completion, presentation, manuscript preparation, publication, utilization, and recognition. Monitoring each stage would allow the university to identify where projects most commonly stall and which forms of support produce measurable progress.

A corresponding research productivity monitoring system should use verifiable indicators. Philippine higher education research increasingly demonstrates the value of systematic output monitoring. Gopez et al. (2024) used bibliometric information to evaluate institutional research performance, while research productivity monitoring initiatives have emphasized the need to organize institutional data on research outputs for assessment and decision-making. Such monitoring need not be limited to indexed publications; it may include completed studies, conference outputs, peer-reviewed publications, grants, citations where relevant, patents or innovations, policy products, documented research utilization, external partnerships, and awards.

Table 3 indicates a high level of self-reported research productivity, with a combined mean of 2.85. Presentation of research outputs received the highest composite mean at 2.98, closely followed by reported

research utilization at 2.96. Completion of studies and participation in ongoing projects occupied the middle of the pattern, while publication at 2.77 and research-related recognition at 2.70 were comparatively lower. Teaching personnel reported higher means across all indicators, with the largest descriptive gap occurring in research recognition.

These findings should not be interpreted as evidence that UDM has objectively high research productivity because the instrument did not record verified frequencies or counts. The more defensible conclusion is that respondents generally assess their research accomplishments favorably, while publication and recognition appear to be comparatively weaker areas. The results point to the need for stronger publication support, structured mentoring, realistic research-time arrangements, recognition mechanisms, differentiated pathways for non-teaching personnel, and systematic institutional monitoring of verified research outputs.

For future assessment, the university should complement perception-based measures with objective institutional records. A verified productivity database could document the number of proposals submitted and approved, ethics-cleared projects, completed studies, conference presentations, journal and proceedings publications, grants obtained, citations, where relevant, research utilization, external collaborations, intellectual property outputs, and recognition received. Linking these indicators with research culture and engagement measures would provide a stronger basis for determining whether institutional support and participation are associated with demonstrable increases in research productivity.

Experiences, Barriers, and Enabling Conditions of Teaching and Non-Teaching Personnel in Relation to Research Culture, Research Engagement, and Research Productivity

Table 4 presents the major themes derived from the qualitative interviews with teaching and non-teaching personnel. The findings indicate that participants generally perceived the institutional research environment positively, particularly regarding leadership support, collaboration, training opportunities, and recognition. At the same time, they identified ongoing structural and capacity-related barriers, including workload, limited research time, funding, methodological and writing skills, mentoring, and access to sustained research support.

Table 18. Qualitative Themes on Research Culture, Engagement, Productivity, and Institutional Support

Domain	Major Theme	Reported Experiences and Supporting Ideas	Interpretive Meaning
Research Culture	Supportive and increasingly institutionalized research environment	Participants described research as becoming more visible within institutional practice, supported by leadership, collaboration, and a stronger institutional research orientation.	Research appears to be increasingly recognized as part of institutional practice; however, a positive research orientation still requires stronger mechanisms for mentoring, onboarding, and continuing research support.
Research Culture	Need for stronger mentoring and integration	Participants indicated that mentoring, sharing expertise, and support for less experienced personnel in research remain areas requiring development.	Institutional recognition of research does not automatically ensure that all personnel have equal access to guidance and research expertise. A more formal mentoring structure may help translate institutional support into research capability.
Research Engagement	Active and collaborative	Participants associated engagement with research	Research engagement is facilitated when personnel have

	participation in research	training, collaborative activities, institutional programs, peer support, and opportunities to participate in research-related activities.	accessible institutional opportunities and supportive collegial relationships.
Research Engagement	Institutional recognition and support as motivators	Recognition, incentives, leadership encouragement, training, and peer support were identified as conditions that encourage participation in research.	Engagement appears to depend not only on individual interest but also on whether institutional expectations are accompanied by tangible forms of support and reinforcement.
Research Productivity	Research as a source of professional fulfillment	Participants associated research accomplishment with professional development, satisfaction, learning, and a sense of contribution to the university and their respective professional roles.	Research productivity has professional and institutional value beyond the production of publications, particularly when personnel perceive research as meaningful to their work and professional growth.
Research Productivity	Structural barriers to sustained output	Time constraints, competing workload, insufficient funding, gaps in research skills, and limited mentoring were reported as difficulties affecting the completion and dissemination of research.	Favorable attitudes toward research and participation in research activities do not necessarily result in sustained outputs when structural constraints remain unresolved.
Challenges and Support	Resource and capacity limitations	Participants identified limitations involving available research time, workload, funding, technical competence, methodological skills, and access to sustained guidance.	Research barriers occur at both individual and institutional levels; consequently, capacity building alone may be insufficient without corresponding improvements in resources and working conditions.
Challenges and Support	Importance of integrated institutional and collegial support	Leadership support, mentoring, collaboration, peer assistance, institutional programs, incentives, and access to resources were described as important enabling conditions.	Research development is strengthened when organizational structures and interpersonal support operate together rather than as isolated interventions.
Program Priorities	Differentiated research capability development	Participants identified a need for ongoing, differentiated training tailored to personnel with varying levels of research experience and distinct institutional responsibilities.	A uniform training model may not adequately address the needs of beginning, developing, and more experienced researchers, as well as the different research roles of teaching and non-teaching personnel.
Program Priorities	Structured incentives, mentoring, time allocation, and infrastructure	Participants emphasized the need for stronger mentoring, sufficient research time, appropriate incentives, improved research resources, and sustained institutional support.	An effective research empowerment program should move beyond seminar participation and establish continuing structures that support personnel from research conceptualization through completion, dissemination, and utilization.

Program Priorities	Inclusive and collaborative research ecosystem	Participants favored stronger collaboration across personnel groups and expanded opportunities for teaching and non-teaching personnel to participate in research.	Institutional research development should recognize diverse professional roles and create inclusive opportunities for personnel to contribute to knowledge generation, institutional research, and evidence-based practice.
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The qualitative findings reveal an institutional environment in which research is increasingly perceived as part of Universidad de Manila's organizational practice. Participants described leadership support, institutional programs, collaboration, and research-oriented activities as factors that contribute to a more favorable research climate. This pattern complements the quantitative finding that research culture was rated High, particularly in terms of recognition of research as an important institutional function. However, the interviews also indicate that institutional recognition alone does not constitute a fully developed research culture. Mentoring, expertise sharing, onboarding of less experienced researchers, and sustained support remain areas requiring further development.

A second major pattern concerns the interaction between institutional opportunity and actual research engagement. Participants associated research participation with training programs, collaboration with colleagues, peer support, incentives, and recognition. These accounts suggest that engagement becomes more feasible when institutional expectations are supported by practical opportunities and relational support. This interpretation is consistent with the quantitative findings, in which participation in university research training and collaboration with colleagues were among the highest-rated engagement indicators.

At the same time, participants described research engagement as constrained by competing duties and limited opportunities to devote sustained time to research. The qualitative evidence therefore helps explain why participation in internally organized activities may be relatively strong while allocation of time for research and external partnerships received comparatively lower quantitative ratings. Personnel may attend training and participate in collaborative activities but still encounter difficulty sustaining research alongside their primary teaching, administrative, technical, or service responsibilities.

The qualitative findings also provide important context for interpreting self-reported research productivity. Participants described research accomplishment as professionally fulfilling and as a source of learning, professional development, and contribution to institutional goals. However, these positive experiences coexisted with recurring barriers related to time, workload, funding, skills, and mentoring. The findings therefore suggest that research productivity is shaped by more than individual motivation. Personnel may value research and experience professional satisfaction from scholarly activity while still confronting institutional conditions that make sustained output difficult.

A particularly important qualitative conclusion is that research barriers are both structural and developmental. Time limitations and workload reflect organizational conditions, whereas methodological competence, academic writing, and confidence may require capacity development. Funding and infrastructure involve resource availability, while mentoring and collaboration depend on relationships and institutional systems. Addressing only one category of constraint is therefore unlikely to produce sustained improvement in research output.

The findings further indicate that teaching and non-teaching personnel may require differentiated forms of research support. Although the qualitative summaries identify several experiences shared among personnel groups, their institutional responsibilities and research opportunities are not necessarily equivalent. Teaching personnel may undertake disciplinary, instructional, and extension-related research, while non-teaching personnel may contribute through institutional research, policy studies, program evaluation, administrative improvement, technical investigation, data analysis, and other forms of evidence generation connected with their professional functions. An inclusive research development strategy should therefore recognize multiple legitimate pathways to research contribution.

The qualitative findings support the development of an Institutional Research Empowerment Program that goes beyond isolated training activities. Participants' accounts point toward a need for structured mentoring, differentiated capability development, realistic research-time arrangements, stronger infrastructure and funding support, transparent incentives and recognition, collaborative research groups, publication assistance, and expanded opportunities for both teaching and non-teaching personnel to participate in research.

The qualitative evidence therefore reinforces an important institutional distinction: a favorable research culture can encourage participation, but positive attitudes and training opportunities alone do not guarantee sustained research output. Research development becomes more likely when institutional expectations are matched by practical support, sufficient time, mentoring, resources, collaboration, and clear pathways from research initiation to completion, dissemination, utilization, and recognition.

Quantitative and Qualitative Findings: Convergence, Complementarity, and Tensions in Explaining the Research Experiences of Teaching and Non-Teaching Personnel

Mixed-methods integration was undertaken to examine how the quantitative findings on research culture, research engagement, and self-reported research productivity corresponded with the experiences described by teaching and non-teaching personnel in the qualitative interviews. Rather than interpreting the two strands independently, the findings were compared to determine areas of convergence, complementarity, tension, and unresolved evidence. Such integration is a defining feature of mixed methods research because it allows numerical patterns and qualitative accounts to generate more comprehensive interpretations than either dataset could provide independently (Fetters & Tajima, 2022; Peters & Fàbregues, 2024).

Table 19. Integrated Quantitative and Qualitative Findings on Research Culture, Research Engagement, and Self-Reported Research Productivity

Domain	Quantitative Findings	Qualitative Findings	Nature of Integration	Integrated Inference
Research culture: institutional recognition	Research culture was rated High overall (M = 3.19). Recognition of research as an important university function received the highest composite mean (M = 3.45), followed by awareness of the research vision, agenda, and priorities (M = 3.32).	Participants described a supportive research climate, stronger institutional orientation toward research, and visible leadership support.	Convergence	Both strands indicate that research is strongly recognized within the university. UDM appears to have established a favorable institutional orientation toward research, although institutional recognition alone does not establish a fully mature research culture.
Research culture: mentoring and expertise sharing	Mentoring and sharing of expertise received the lowest research-culture mean (M = 2.99). Collaboration and teamwork were also comparatively lower (M = 3.06).	Participants identified mentoring, onboarding, peer guidance, and access to experienced researchers as areas requiring	Convergence and complementarity	Both strands identify relational research support as less developed than institutional recognition. The qualitative findings explain that favorable policies and leadership support

		further strengthening.		do not necessarily guarantee continuing access to mentoring and expertise. Internal capacity-building activities are established and accessible mechanisms for encouraging research engagement. However, training represents an entry point rather than evidence of sustained research productivity.
Research engagement: internal training	Research engagement was rated High overall (M = 3.05). Participation in university research training, seminars, and workshops received the highest engagement mean (M = 3.24).	Participants identified training and institutional research programs as important opportunities that encourage participation and build confidence.	Strong convergence	The findings indicate that collegial relationships are an important component of the existing research environment. Collaboration may help translate individual research interest into active participation. The qualitative evidence explains the lower quantitative rating. Personnel may value and participate in research but encounter difficulty maintaining continuous research activity alongside teaching, administrative, technical, and service responsibilities.
Research engagement: collaboration	Collaboration with colleagues received a relatively favorable mean (M = 3.11), while involvement in research projects within units or departments obtained M = 3.09.	Participants described peer assistance, teamwork, collegial encouragement, and shared expertise as important facilitators of research engagement.	Convergence	Research engagement appears more strongly established within the university than through external networks. Expanding inter-institutional, government, community,
Research engagement: research time	Allocation of time and effort to research alongside primary duties received a comparatively lower mean (M = 2.94).	Participants repeatedly identified workload, competing responsibilities, and insufficient research time as barriers to sustained engagement.	Strong convergence and explanatory complementarity	
Research engagement: external partnerships	Research partnerships with external institutions or organizations received the lowest engagement mean (M = 2.88).	Participants emphasized the need for wider research networks, collaboration opportunities, stronger institutional linkages, and	Convergence and complementarity	

		additional research resources.		professional, and international collaborations represents an area for research development.
Self-reported research productivity: overall	Self-reported research productivity was rated High overall (M = 2.85). Teaching personnel reported M = 3.13, while non-teaching personnel reported M = 2.57.	Participants described research accomplishment as professionally fulfilling and meaningful to their professional development and institutional contribution.	Convergence with methodological caution	Both strands indicate positive perceptions of research accomplishment. However, the quantitative scores represent self-reported ratings and should not be interpreted as verified institutional productivity rates.
Research productivity: dissemination	The presentation of research outputs received the highest mean productivity (M = 2.98).	Participants associated dissemination and research participation with professional development, recognition, and contribution to institutional research.	Convergence	Presentation appears to be a relatively prominent form of reported research output. The finding suggests that personnel are able to reach institutional or conference dissemination, although the study does not establish how many presented studies subsequently become publications.
Research productivity: utilization	Reported utilization of research for policy, instruction, or professional practice received M = 2.96.	Participants described research as valuable when it contributes to professional practice, institutional development, or improvement of their respective functions.	Convergence and complementarity	The qualitative evidence broadens the understanding of productivity by showing that participants value research not only as scholarly output but also as an instrument for improving practice and institutional processes.
Research productivity: publication	Publication received a comparatively lower mean (M = 2.77), with teaching personnel reporting M = 3.05 and non-teaching personnel M = 2.48.	Participants identified workload, limited time, funding constraints, research-skill gaps, insufficient mentoring, and inadequate sustained support	Complementarity and tension	The findings suggest a potential gap between research participation and the production of publishable outputs. The qualitative findings offer plausible explanations for why

Research productivity: recognition	Research-related recognition, incentives, or awards received the lowest productivity mean (M = 2.70).	Participants regarded recognition and incentives as important motivators and recommended clearer and more structured systems of institutional reinforcement.	Convergence and complementarity	as barriers to producing outputs.	favorable research culture and engagement may not consistently translate into publication. Recognition represents a comparatively weaker component of the research ecosystem. Transparent and role-sensitive incentive systems may reinforce sustained research participation and completion.
Positive culture versus sustained outputs	Research culture (M = 3.19) and research engagement (M = 3.05) received numerically higher ratings than self-reported productivity (M = 2.85).	Participants described a supportive institutional research environment while simultaneously reporting constraints in workload, funding, time, skills, and mentoring.	Tension and complementarity		A positive research orientation does not automatically result in sustained research outputs. Structural and relational barriers appear more visible as personnel progress from awareness and engagement toward completion, publication, and recognition.
Teaching versus non-teaching: research culture	Teaching personnel reported M = 3.34 compared with M = 3.04 among non-teaching personnel, a descriptive difference of 0.30 points.	Qualitative accounts identified generally shared experiences, but role-specific research-culture experiences were not sufficiently differentiated.	Unresolved		A personnel-group difference is descriptively evident, but inferential testing and more explicitly stratified qualitative evidence are required before attributing the difference to personnel classification.
Teaching versus non-teaching: engagement	Teaching personnel reported M = 3.23 compared with M = 2.86 among non-teaching personnel, a descriptive difference of 0.37 points.	Participants described common barriers related to time, workload, mentoring, and institutional opportunity, but their experiences were not systematically differentiated by	Complementarity but unresolved		Differences may reflect unequal research expectations, opportunities, workload structures, or institutional pathways rather than differences in motivation or capability.

Teaching versus non-teaching: productivity	Teaching personnel reported M = 3.13, compared with M = 2.57 among non-teaching personnel, yielding the largest descriptive difference of 0.56 points.	personnel classification. Participants indicated that research participation is influenced by institutional responsibilities, opportunities, support, and access to research resources.	Tension and unresolved	The larger productivity gap may partly reflect differences in job mandate and the use of conventional academic productivity indicators. Non-teaching research contributions may require role-appropriate measures rather than direct comparisons based solely on faculty-oriented outputs.
Structural barriers	Lower quantitative scores were evident for mentoring, research-time allocation, external partnerships, publication, and recognition.	Workload, insufficient time, limited funding, skills gaps, research resources, and insufficient mentoring were repeatedly reported as barriers.	Strong convergence	The principal challenge is not an absence of favorable attitudes toward research but the lack of structures and resources that enable personnel to sustain research through to completion and dissemination.
Enabling conditions	Institutional encouragement, training, internal collaboration, and recognition of research received favorable ratings.	Leadership, peer support, mentoring, training, collaboration, incentives, and institutional reinforcement were identified as research enablers.	Strong convergence and complementarity	Sustainable research development requires structural and relational support to operate together. Research policies and programs are more likely to support productivity when accompanied by mentoring, collaboration, time, resources, and recognition.
Institutional Research Empowerment Program	Quantitative areas requiring further development include mentoring (M = 2.99), external partnerships (M = 2.88), time allocation (M = 2.94), publication	Participants recommended differentiated capacity-building, mentoring, stronger infrastructure, realistic time allocation,	Convergence leading to program development	The integrated evidence supports an empowerment program that emphasizes structured mentoring, differentiated capability development,

(M = 2.77), and recognition (M = 2.70).

incentives, collaboration, and inclusive research and development opportunities.

protected or realistic research time, publication support, external partnerships, incentives, and role-sensitive opportunities for both teaching and non-teaching personnel.

The integration of the quantitative and qualitative findings reveals substantial convergence regarding the overall research environment of Universidad de Manila. Quantitatively, research culture received a High combined rating of 3.19, with recognition of research as an important university function emerging as the strongest indicator. Qualitatively, participants similarly described research as increasingly embedded in institutional practice and associated this development with leadership support and stronger institutional research orientation. Taken together, the evidence suggests that UDM has established a favorable normative foundation in which research is visibly recognized as part of the university's institutional mandate.

This integrated finding is consistent with recent Philippine evidence that emphasizes the importance of institutional support in strengthening the research culture. Camilon et al. (2024) found that institutional support systems and the research working environment were associated with research productivity among faculty members in a Philippine higher education setting. Similarly, Owan et al. (2024) demonstrated that institutional culture and collaboration play important roles in connecting mentorship and institutional support with research productivity. These studies reinforce the view that recognizing research institutionally is important but becomes more consequential when translated into supportive organizational and relational structures.

The first significant area of convergence concerns mentoring and expertise sharing. Although research culture was rated positively overall, mentoring obtained the lowest quantitative mean within the construct at 2.99. Qualitative participants likewise identified mentoring, guidance, expertise sharing, and the integration of less-experienced researchers as areas requiring further development. The convergence indicates that the university's research orientation may currently be stronger in institutional recognition than in ongoing researcher-to-researcher developmental support.

This distinction is important because mentoring is unlikely to operate effectively in isolation. Owan et al. (2024) found that mentorship became more consequential for research productivity when accompanied by a positive institutional culture and collaboration. The UDM findings are consistent with this perspective, as respondents simultaneously identified mentoring, collaboration, peer support, and institutional encouragement as elements of the research environment. An effective mentoring system would therefore need to function within a broader collaborative research ecosystem rather than simply assigning inexperienced personnel to individual mentors.

The research-engagement findings demonstrate another strong area of convergence. Quantitatively, research engagement was High overall at 3.05, with university research training, seminars, and workshops receiving the highest mean of 3.24. Qualitative participants likewise described training, institutional programs, collaboration, recognition, and peer support as factors that encouraged participation. The integrated evidence therefore suggests that internally organized research and development activities constitute an established institutional entry point for personnel who wish to participate in research.

However, the integrated findings also demonstrate why research empowerment should not be equated with attendance at seminars or workshops. Engagement was comparatively lower in the allocation of time to research and participation in external partnerships. The qualitative findings explained these patterns by identifying workload, competing responsibilities, resource limitations, and restricted opportunities for wider

collaboration. Thus, personnel may have access to research training yet still encounter barriers in translating newly developed competencies into sustained project activity.

Recent Philippine research provides support for this interpretation. Elechicon and Paris (2026), examining science faculty in Philippine state universities, found that research activity remained intertwined with teaching loads, administrative responsibilities, collegial relationships, and institutional infrastructure. Their study underscores that research engagement is situated within a larger work system. Personnel may possess motivation and research competence yet still struggle to sustain research when institutional workload and resource arrangements do not provide sufficient space for scholarly activity.

The integrated findings regarding time allocation are particularly important. Quantitatively, time devoted to research alongside primary duties received a comparatively lower mean of 2.94. Qualitative respondents independently identified limited time and workload as recurring barriers. This represents strong convergence between the two data strands. It suggests that research-time constraints are not merely an incidental observation but a consistent institutional issue evident in both numerical ratings and participants' accounts.

This pattern supports the inclusion of realistic research-time arrangements in the proposed Institutional Research Empowerment Program. However, the findings do not establish that limited time causes lower productivity because the study did not statistically test relationships among culture, engagement, and productivity. The integrated evidence instead identifies time as a repeatedly reported constraint requiring further institutional attention.

External collaboration is another area where the qualitative strand offers further explanation. Research partnerships with outside organizations received the lowest mean engagement, at 2.88. Participants likewise expressed a need for stronger networks, resources, and collaborative opportunities. The findings indicate that UDM's research engagement may currently be more strongly developed internally than externally.

External networks are potentially important for research capacity because they provide access to specialized expertise, funding, infrastructure, multidisciplinary perspectives, and broader dissemination opportunities. Gopez et al. (2024), in their analysis of highly research-productive Philippine higher education institutions, identified international and corporate collaboration as important dimensions of institutional research profiles. Expanding external networks may therefore help UDM move from internally supported research participation toward broader inter-institutional knowledge production.

The integration becomes more complex in the area of research productivity. The quantitative component produced a High self-reported productivity score of 2.85, while qualitative participants described research as professionally fulfilling and valuable to their work. These findings collectively indicate generally positive perceptions of research accomplishment. However, the productivity findings require methodological caution because the quantitative instrument measured factual output through scaled self-reports rather than objective counts.

This distinction becomes particularly important when the lower-rated productivity indicators are examined. Publication obtained a mean of 2.77, while research-related recognition and awards received the lowest mean at 2.70. Qualitative participants simultaneously reported barriers involving workload, time, funding, research skills, mentoring, and sustained institutional support. Qualitative evidence, therefore, complements the quantitative findings by offering plausible explanations for why publication and recognition may remain comparatively weak despite a favorable research culture and engagement.

The pattern is consistent with recent Philippine evidence showing that participation in research does not automatically translate into completed and disseminated research outputs. Palmiano (2024) documented considerable attrition across the research production pathway: only a portion of approved research projects progressed to completion, presentation, publication, citation, or recognition. This finding reinforces the

interpretation that research development should be understood as a progression rather than as a single activity.

The integrated UDM results suggest a similar institutional question. Personnel reports favorable research culture, relatively strong participation in training and collaborative activities, and positive self-assessments of productivity; nevertheless, publication, recognition, research-time allocation, and external partnership indicators remain comparatively lower. The findings point to a possible gap between participation in research and development activities and the institutional structures needed to sustain researchers through project completion, dissemination, and publication.

This pattern should not be interpreted as a statistically demonstrated causal sequence. The quantitative strand did not test whether research culture predicts engagement or whether engagement predicts productivity. Rather, the mixed methods findings generate an interpretive institutional pathway that can guide future assessment:

Research Culture → Research Engagement → Research Development → Research Output → Dissemination and Utilization → Recognition and Further Collaboration

The usefulness of this pathway lies in identifying where institutional support may need to be intensified. UDM appears comparatively strong in establishing research recognition and providing internal capacity-building opportunities. The findings suggest that stronger support may be needed as personnel move toward sustained project implementation, publication, external collaboration, utilization, and recognition.

Using a joint display to develop this inference is methodologically appropriate for a convergent mixed-methods study. Peters and Fàbregues (2024) emphasize that joint displays can move mixed-methods analysis beyond parallel presentation by allowing researchers to examine how quantitative and qualitative findings interact to generate higher-order interpretations. Fetters and Tajima (2022) similarly identify joint displays as an effective strategy for explicitly representing integrated evidence. The present table therefore serves not merely as a summary of Tables 1–4 but as a mechanism for identifying patterns that become more visible only when the two data strands are considered together.

A particularly important tension concerns the relationship between teaching and non-teaching personnel. Teaching personnel reported higher descriptive means for research culture, engagement, and self-reported productivity. The differences increased across the three constructs: 0.30 points for research culture, 0.37 for engagement, and 0.56 for productivity. However, no inferential tests were conducted, and the qualitative themes do not sufficiently distinguish between the two groups' experiences. The apparent personnel gap therefore remains unresolved.

The findings should not be interpreted as demonstrating that teaching personnel are more capable, more motivated, or inherently more productive researchers. Research is typically embedded more explicitly in faculty workload, promotion, accreditation, and academic evaluation. Non-teaching or professional personnel may contribute to university knowledge production through different pathways. De Jong and del Junco (2024) emphasize that professional staff can influence academic knowledge development through research management, institutional strategy, operational systems, resource acquisition, and connections between universities and external actors. Conventional faculty-centered productivity indicators may therefore fail to capture some research-related contributions made by non-teaching personnel.

The integrated findings support the need for differentiated research and development pathways. Teaching personnel may require continued support for disciplinary research, grants, scholarly publication, advanced methodological work, and external collaboration. Non-teaching personnel may benefit from structured opportunities for institutional research, policy studies, administrative research, service evaluation, quality assurance studies, data analytics, technical investigations, program evaluation, and community-based inquiry relevant to their professional functions. These pathways should share methodological quality standards while recognizing legitimate differences in role expectations and research outputs.

The combined findings also suggest that structural and relational support must operate together. Quantitative weaknesses were concentrated around mentoring, external partnerships, time allocation, publication, and recognition. Qualitative participants independently identified workload, limited time, skills gaps, funding constraints, mentoring needs, and resource limitations. This strong convergence indicates that research barriers cannot be addressed solely through additional seminars.

Owan et al. (2024) similarly demonstrated that collaboration and institutional culture can mediate the relationships between mentorship, institutional support, and research productivity. Their findings suggest that isolated interventions may yield limited results when not embedded in a supportive research environment. The implication for UDM is that mentoring, funding, training, collaboration, workload arrangements, publication assistance, and recognition should be designed as an interconnected research-support system.

The findings therefore provide a clear basis for the proposed Institutional Research Empowerment Program. The program should retain research training as an important entry point while extending support throughout the full research cycle. Potential components include differentiated training based on research experience and personnel role, structured mentoring, realistic or protected research time, methodological and statistical consultation, collaborative research clusters, research funding support, manuscript development assistance, journal matching and publication support, external research partnerships, research utilization mechanisms, and transparent recognition systems.

The program should also establish objective monitoring indicators. While self-reported perceptions remain valuable for understanding research experiences, institutional assessment should eventually document proposals submitted, projects approved and ethics-cleared, completed studies, conference presentations, peer-reviewed publications, grants, external collaborations, documented research utilization, citations where relevant, intellectual-property outputs, mentoring outcomes, and recognition. Palmiano (2024) and Gopez et al. (2024) demonstrate the analytical value of using identifiable research outputs when assessing research productivity and institutional research performance.

Overall, the integration of mixed methods reveals three broad conclusions. First, substantial convergence indicates that Universidad de Manila possesses a favorable perceived research orientation supported by institutional recognition, leadership, internal training, and collegial participation. Second, complementarity between the quantitative and qualitative findings indicates that mentoring, time, workload, resources, funding, external networks, and publication support help explain why favorable perceptions of research do not necessarily translate into sustained outputs. Third, tensions and unresolved findings remain concerning the descriptive differences between teaching and non-teaching personnel and the extent to which self-reported productivity reflects verified research performance.

The strongest integrated inference is therefore that UDM's principal research-development challenge is not simply to increase awareness of research or expand seminar participation. Rather, the institution needs to strengthen the mechanisms that convert favorable research culture and engagement into sustained, documented, and utilized research outputs. An Institutional Research Empowerment Program grounded in mentoring, differentiated capability development, realistic research-time arrangements, collaboration, external partnerships, publication assistance, incentives, and systematic monitoring would respond directly to the convergent needs identified across the quantitative and qualitative strands.

Components of an Institutional Research Empowerment Program

The integrated findings provide a clear basis for developing an Institutional Research Empowerment Program that moves beyond short-term capability-building activities and establishes a sustained institutional pathway for research development. The results indicate that Universidad de Manila already possesses a generally favorable perceived research culture and relatively high research engagement. Research is strongly recognized as an important university function, awareness of institutional research priorities is favorable, and participation in internal research training is comparatively strong. However, the

findings also identify weaker areas involving mentoring, allocation of research time, external partnerships, publication, recognition, and the conversion of participation into documented research outputs. The proposed program should therefore focus not simply on increasing research awareness but on strengthening the institutional mechanisms that enable teaching and non-teaching personnel to progress from research interest and training to project completion, dissemination, utilization, and verified scholarly output.

A central component of the program should be the development of differentiated research capabilities. The study shows that teaching and non-teaching personnel participate in research within different professional contexts and report different levels of research culture, engagement, and self-reported productivity. Although the observed group differences were not subjected to inferential testing, their consistent direction suggests that a uniform research-and-development strategy may not effectively address the needs of all personnel. Training should therefore be organized according to both research experience and institutional role. Beginning researchers may require foundational training in research problem formulation, literature review, research design, ethics, basic quantitative and qualitative analysis, and academic writing. Intermediate researchers may benefit from advanced methodology, data analysis, proposal development, grant writing, and manuscript preparation, while experienced researchers may require support for externally funded projects, interdisciplinary collaboration, high-quality publication, research leadership, and mentoring.

Role-sensitive pathways are particularly important for non-teaching personnel. Conventional research and development programs in higher education often emphasize faculty-oriented outputs such as academic publications and conference presentations. However, professional and administrative personnel may contribute through institutional research, policy analysis, program evaluation, administrative innovation, quality assurance studies, technical investigations, data analytics, extension evaluation, and service-improvement research. De Jong and del Junco (2024) emphasize that professional staff contribute to knowledge development through research management, institutional strategy, operational systems, resource development, and relationships connecting universities with external actors. The empowerment program should therefore recognize multiple legitimate forms of knowledge production while maintaining common standards of methodological quality.

A second major component should be a structured research mentoring system. Mentoring and the sharing of expertise received the lowest quantitative rating within the research culture, while the qualitative findings similarly identified insufficient mentoring and a need for greater guidance as ongoing barriers. This convergence indicates that mentoring should become a formal institutional mechanism rather than depend primarily on informal relationships or individual initiative. Mentoring could begin during research conceptualization and continue through proposal development, ethics review, methodology, data analysis, manuscript preparation, journal submission, and response to peer review.

Effective mentoring should also be differentiated according to researcher needs. Beginning researchers may require close developmental guidance, while more experienced researchers may need specialized methodological or publication consultation. Mentoring teams may be more sustainable than relying on a single mentor because different stages of research often require different forms of expertise. Owan et al. (2024) found that mentorship is closely connected with institutional culture and collaboration in shaping research productivity. This suggests that mentoring is most effective when embedded within a broader collaborative research environment rather than treated as an isolated activity.

The third component should address protected or realistically allocated research time. Time allocation received one of the lower engagement ratings, and qualitative participants repeatedly identified workload and competing responsibilities as barriers to sustained research activity. This convergence makes research time a structural rather than merely motivational issue. Personnel may recognize the value of research, attend workshops, and participate in research projects, yet still be unable to sustain scholarly work if research must be undertaken consistently beyond their primary responsibilities.

The empowerment program should therefore include institutionally appropriate mechanisms for allocating research time. For teaching personnel, these may include research workload credits, designated research periods, reduced teaching assignments for approved projects, or milestone-based research releases where feasible. For non-teaching personnel, arrangements may involve project-specific research schedules, authorized research hours, temporary adjustments to workload, or the integration of research into existing institutional responsibilities. Elechicon and Paris (2026) similarly demonstrate, in the Philippine context, that sustained research activity is strongly affected by workload structures, institutional arrangements, and personnel's ability to negotiate research alongside other university responsibilities.

A fourth component should be project-based mentoring and research pipeline management. The study indicates strong participation in training but comparatively weaker publication and recognition. This suggests that institutional capability building should be connected to actual research projects rather than ending with seminar attendance. Each training activity could therefore be linked with a defined research milestone, such as development of a concept note, completion of a proposal, ethics submission, data collection, analysis, manuscript preparation, presentation, or publication.

A research pipeline would allow the university to monitor how personnel move through the different stages of research. This could include concept development, proposal submission, institutional approval, ethics clearance, project implementation, completion, presentation, manuscript development, publication, utilization, and recognition. Palmiano (2024) demonstrated the importance of examining research productivity across these stages because not all initiated or approved studies progress to completion, dissemination, publication, or recognition. Monitoring the pipeline would allow UDM to identify points at which research projects frequently stall and provide targeted assistance accordingly.

A fifth component should focus specifically on manuscript development and publication support. Publication was among the comparatively weaker productivity indicators, despite relatively favorable ratings for research presentations. This pattern suggests that research may reach the dissemination stage without consistently progressing to publication. The empowerment program should therefore include structured writing clinics, manuscript development workshops, internal peer-review mechanisms, methodological consultation, statistical support, language and technical editing, journal selection assistance, publication ethics orientation, and guidance in responding to reviewer comments.

Publication support should also address the practical challenges associated with journal selection. Researchers should be assisted in identifying legitimate, appropriate, and reputable publication venues while avoiding predatory journals and conferences. Internal manuscript review before submission could improve methodological clarity, academic writing, reference accuracy, adherence to journal requirements, and the likelihood that research outputs progress successfully through external peer review.

A sixth component should strengthen research collaboration within the university. Although collaboration received a favorable rating, both quantitative and qualitative findings indicate that mentoring, expertise sharing, and collaborative support remain areas for development. The university could establish interdisciplinary research clusters organized around the institutional research agenda, priority social issues, disciplinary areas, or applied institutional problems. These clusters could include both teaching and non-teaching personnel, allowing individuals with different expertise to contribute to common projects.

Collaborative research structures can also function as developmental mechanisms. Less experienced researchers can participate initially as members of research teams before assuming greater responsibility for conceptualization, methodology, analysis, or publication. Collaborative writing groups, research communities of practice, methodological consultation teams, and interdisciplinary project teams may reduce researcher isolation and facilitate transfer of expertise. Owan et al. (2024) reinforce the importance of collaboration as a mechanism connecting institutional support and mentoring with stronger research productivity.

A seventh component should expand external research partnerships. External partnerships obtained the lowest research-engagement rating, suggesting that the university's research activities are currently more strongly developed within internal structures than through external networks. The empowerment program should therefore create mechanisms for collaboration with other universities, government agencies, local government units, professional organizations, community organizations, research institutions, industry partners, and international networks where appropriate.

External partnerships can provide access to expertise, research funding, datasets, specialized facilities, larger participant populations, multidisciplinary collaboration, and broader dissemination opportunities. Gopez et al. (2024) identified external and international collaboration as important dimensions of the research profiles of productive Philippine higher education institutions. For UDM, external linkages may be especially valuable for projects addressing urban governance, education, health, social development, community concerns, technology, public administration, and other issues relevant to the City of Manila and the university's institutional mandate.

An eighth component should provide methodological, technical, and infrastructure support for research. Qualitative participants identified skills, funding, resources, and methodological limitations as barriers to research productivity. Individual training cannot address all these constraints. Personnel may understand research methodology conceptually but still require specialist assistance with instrument development, sampling, statistical analysis, qualitative analysis, mixed-methods integration, data management, visualization, publication preparation, or research ethics.

The university may therefore consider establishing accessible research consultation services. These could include scheduled methodological consultations, statistical support, qualitative research consultations, research ethics guidance, literature search assistance, reference management training, data management support, and access to relevant software and databases. Research infrastructure should be regarded as part of institutional capacity rather than as a resource available only to already productive researchers.

A ninth component should establish strategic funding and resource support for research. Limited funding emerged qualitatively as a barrier to sustained productivity. Research projects often require expenses for data collection, transportation, materials, software, laboratory work, transcription, publication, conference participation, or other project-specific needs. The empowerment program should therefore incorporate transparent mechanisms for internal research grants or small project-support funds, subject to institutional policies and available resources.

Funding decisions should preferably be linked to clear criteria, defined deliverables, ethical compliance, and research milestones. Small seed grants may be particularly useful for beginning researchers, while larger competitive support may be appropriate for collaborative or externally oriented projects. Funding should be integrated with mentoring and output monitoring so that financial support contributes to project completion and dissemination rather than operating independently of the broader research-development pathway.

A tenth component should strengthen research incentives and recognition. Recognition and awards received the lowest self-reported productivity rating, while qualitative participants identified incentives and institutional reinforcement as motivating conditions. This convergence supports the establishment or strengthening of transparent research recognition mechanisms. However, incentives should reward meaningful stages and outputs rather than participation alone.

Recognition may include completed studies, peer-reviewed publications, conference presentations, external grants, research utilization, collaborative projects, mentoring contributions, policy outputs, innovations, community-based research, and other role-appropriate accomplishments. Recognition systems for non-teaching personnel should likewise acknowledge research contributions relevant to their professional responsibilities. Ocampo et al. (2022) identified reward systems as one of the institutional

factors that interact with mentoring, research funding, information resources, and organizational support to shape research productivity.

An eleventh component should focus on research utilization and institutional impact. Research utilization received one of the stronger self-reported productivity ratings, indicating that personnel perceive research as contributing to policy, instruction, or professional practice. The empowerment program should build on this strength by establishing mechanisms to review completed research for potential institutional application.

Research findings could inform curriculum improvement, student services, administrative procedures, extension programs, institutional policies, planning, quality assurance, professional practice, and community engagement. A research-utilization mechanism could require completed institutional studies to include recommendations for potential application and identify offices or units that may benefit from the findings. Where recommendations are adopted, the utilization should be documented. This would allow the university to demonstrate research impact beyond publication counts.

A twelfth component should establish a verified research productivity and monitoring system. One of the most important methodological limitations of the study is that productivity was measured through self-reported Likert ratings rather than objective research records. The proposed empowerment program should therefore include systematic monitoring of verified research outputs. Institutional records could document submitted proposals, approved projects, ethics-cleared studies, completed research, presentations, publications, grants, citations where appropriate, documented utilization, external partnerships, intellectual property outputs, mentoring activities, and research recognition.

Such a monitoring system would provide a stronger basis for evaluating whether the empowerment program produces measurable improvements over time. Gopez et al. (2024) demonstrate the value of using documented bibliometric and collaboration indicators when assessing institutional research performance. For UDM, a broader institutional dashboard could combine conventional scholarly indicators with locally relevant outcomes such as policy utilization, community impact, administrative improvement, and role-specific research contributions.

The program should also incorporate periodic evaluation using both quantitative and qualitative evidence. Follow-up assessments could determine whether improvements occur in mentoring, research time, external partnerships, publications, and verified outputs. Qualitative interviews could examine how personnel experience the revised institutional structures and identify implementation challenges not visible in numerical indicators. This would preserve the mixed methods orientation of the present study and create a continuous evidence cycle in which research is used to improve the university's own research-development system.

Taken together, the integrated findings support an Institutional Research Empowerment Program organized around a developmental pathway rather than isolated interventions:

Institutional Research Empowerment Program



Figure 2: Proposed Institutional Research Empowerment Program

model statistically established by the current study. Its components are derived from the convergent strengths, barriers, and needs identified in the quantitative and qualitative findings.

The overall goal of the program should therefore be to strengthen the university's capacity to convert its already favorable research orientation into sustained, inclusive, and documented research performance. UDM appears to have established important foundations through institutional recognition of research and participation in internal research and development activities. The next stage of development requires stronger mentoring, realistic research-time arrangements, differentiated capacity building, research resources, collaborative structures, external partnerships, publication support, incentives, utilization mechanisms, and systematic monitoring of verified outputs.

Importantly, the proposed program should not impose identical expectations on teaching and non-teaching personnel. Instead, it should create equitable and role-sensitive opportunities for research contributions. Teaching personnel may pursue disciplinary, instructional, extension, and scholarly research, while non-teaching personnel may contribute through institutional, administrative, technical, policy, evaluation, service, and community-based research. By recognizing these multiple pathways within a coherent institutional research system, the university can broaden participation while maintaining standards of rigor and accountability.

Ultimately, the Institutional Research Empowerment Program should shift the emphasis from participation in research activities to sustained research development. Its success should not be measured primarily by the number of seminars conducted or personnel trained but by the extent to which personnel receive continuing support, develop research capability, complete meaningful studies, collaborate within and beyond the university, disseminate and publish findings, apply research to institutional and societal needs, and generate documented research outputs. Such an approach directly addresses the study's central integrated finding: a positive research culture provides an essential foundation, but institutional structures are required to transform that foundation into sustained research engagement and verifiable scholarly contributions.

CONCLUSIONS

The study concludes that Universidad de Manila has established a generally favorable perceived research environment among the participating teaching and non-teaching personnel. Research culture was rated High overall, with the strongest areas involving recognition of research as an important university function

and awareness of the university's research vision, agenda, and priorities. These findings indicate that research has gained institutional visibility and is increasingly recognized as part of the university's academic and organizational mandate. At the same time, mentoring, expertise sharing, collaboration, and institutional encouragement received comparatively lower ratings, suggesting that the normative recognition of research is stronger than some of the relational and operational structures needed to sustain research practice.

Research engagement was likewise rated High, with participation in university research training, seminars, and workshops emerging as the strongest form of engagement. Collaboration with colleagues and involvement in internal research projects were also positively rated, indicating that personnel have access to institutionally organized opportunities for research participation. However, engagement was comparatively weaker in external research partnerships and in the allocation of time and effort to research alongside primary responsibilities. The qualitative findings reinforced this pattern by identifying workload, competing duties, limited time, and restricted access to wider research networks as continuing constraints. The evidence therefore suggests that UDM has developed meaningful entry points into research participation but still requires stronger mechanisms for sustaining engagement beyond internally organized activities.

The findings on self-reported research productivity present a more cautious picture. Although the overall productivity rating was interpreted as High, presentation of research outputs and reported utilization of research received stronger ratings than publication and research-related recognition. This suggests that personnel perceive themselves as participating meaningfully in research dissemination and application, but the transition toward publication and formal recognition remains comparatively less developed. Because productivity was measured using scaled self-reports rather than verified counts of completed studies, publications, presentations, grants, citations, or awards, the results should not be interpreted as evidence of objectively high institutional research productivity. The more defensible conclusion is that respondents generally perceive their research accomplishments favorably, while publication and recognition remain areas requiring further development.

The qualitative findings deepen this interpretation by showing that research is experienced as both professionally meaningful and structurally demanding. Participants associated research with professional fulfillment, learning, contribution, and institutional development, but they also identified time constraints, workload, funding limitations, research-skill gaps, insufficient mentoring, and resource limitations as barriers to sustained output. These accounts demonstrate that favorable attitudes toward research do not automatically eliminate practical constraints. Research culture, engagement, and productivity are therefore best understood as interconnected but distinct dimensions of institutional research development.

The mixed methods integration further indicates that the strongest convergence occurs around institutional recognition of research, internal training, collegial support, and the need for stronger mentoring and structural support. Quantitative and qualitative findings consistently show that UDM possesses a positive research orientation, but the conversion of that orientation into sustained and verifiable outputs depends on practical enabling mechanisms. Mentoring, realistic research-time arrangements, external collaboration, publication support, funding, incentives, and access to research resources emerge as important areas for institutional strengthening.

The comparison between teaching and non-teaching personnel also warrants careful interpretation. Teaching personnel reported higher means across research culture, engagement, and self-reported productivity, with the largest descriptive difference appearing in productivity. However, these differences were not subjected to inferential statistical testing and should not be described as statistically significant. Moreover, teaching and non-teaching personnel operate under different job mandates, workload structures, professional expectations, and research opportunities. The observed differences therefore should not be interpreted as evidence that non-teaching personnel are less capable or less motivated to conduct research. Instead, they point to the need for differentiated and role-sensitive pathways for research participation and productivity.

The integrated findings support the development of an Institutional Research Empowerment Program organized around a developmental pathway rather than isolated research activities. Such a pathway should

begin with research orientation and capability development and continue through mentoring and collaboration, protected or realistically allocated research time, project implementation, completion, dissemination and publication, research utilization, recognition, and continued research development. This approach responds directly to the central finding that research training and institutional recognition are important foundations but are insufficient by themselves to produce sustained research outputs.

The proposed program should therefore include differentiated capability development for beginning, intermediate, and experienced researchers; structured mentoring; realistic research-time arrangements; internal and external research collaboration; methodological and technical support; research funding; manuscript and publication assistance; transparent incentives; research-utilization mechanisms; and objective monitoring of verified outputs. Teaching personnel may pursue disciplinary, instructional, extension, and scholarly research, while non-teaching personnel should be provided with equivalent opportunities to contribute through institutional research, policy studies, program evaluation, administrative research, technical investigation, data analysis, quality assurance, community studies, and other role-appropriate forms of knowledge generation.

The study concludes that Universidad de Manila possesses a favorable perceived research orientation and a meaningful level of research participation, but continued institutional development is needed to transform research awareness and engagement into sustained, documented, and utilized research outputs. The principal challenge is therefore not simply to increase participation in research activities, but to strengthen the systems that support personnel throughout the entire research process. By connecting institutional commitment with mentoring, time, resources, collaboration, publication support, recognition, and verified output monitoring, UDM can strengthen its research ecosystem in a manner that is inclusive, sustainable, and responsive to the roles of both teaching and non-teaching personnel.

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the formulation of evidence-informed recommendations for strengthening the university's research ecosystem.

Ultimately, this study reflects the collective contribution of individuals and institutional units committed to advancing research, continuous capability development, collaboration, and evidence-informed institutional practice. Their participation and support underscore the importance of an inclusive research environment in which both teaching and non-teaching personnel are provided meaningful opportunities to contribute to knowledge generation, institutional improvement, and the broader research mission of Universidad de Manila.

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Classroom Management Practices and Academic Honesty among Universidad de Manila Students: A Descriptive-Correlational Study

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ABSTRACT

This descriptive-correlational study examined the relationship between classroom management practices and reported academic honesty among students at Universidad de Manila. The study involved 70 faculty members and 229 college students selected through purposive sampling. The researchers gathered data using structured Likert-type questionnaires and analyzed them using descriptive statistics and Pearson correlation. Findings showed that students rated classroom management practices highly and teachers rated them very highly, particularly in setting clear expectations, enforcing academic honesty policies, creating an open classroom environment, using varied assessment strategies, and actively monitoring. Students also demonstrated a high overall level of reported academic honesty, with the strongest response reflecting recognition that cheating violates academic rules. However, willingness to report academic dishonesty received the lowest rating, indicating a possible gap between awareness of ethical standards and readiness to act when misconduct is observed. The study further found a statistically significant relationship between classroom management practices and reported academic honesty in both student and teacher datasets ($p < .001$). Teachers identified limited monitoring, student reluctance to report misconduct, and variation in assessment strategies as key challenges in maintaining academic integrity. Based on these findings, the study recommends strengthening preventive classroom management, consistent policy implementation, confidential reporting mechanisms, authentic and varied assessment practices, and faculty development on academic integrity. Because the design was descriptive-correlational, the findings reflect associations rather than causal effects. The study provides institution-specific evidence for strengthening academic honesty through coordinated classroom and institutional strategies and offers practical directions for future academic integrity initiatives at UDM.

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INTRODUCTION

Academic honesty is a fundamental component of higher education because it protects the credibility of learning, assessment, and academic qualifications. More broadly, academic integrity is grounded in honesty, trust, fairness, respect, responsibility, and courage, which guide ethical behavior among students, faculty, and institutions (International Center for Academic Integrity [ICAI], 2021). Academic misconduct, including cheating, plagiarism, unauthorized collaboration, and misrepresentation of academic work, can compromise both learning outcomes and confidence in educational standards.

Academic dishonesty is influenced not only by individual characteristics but also by the educational environment in which students learn. McCabe and Treviño (1997) showed that contextual factors matter in understanding academic misconduct, and later research emphasized that institutional culture, peer

behavior, and academic expectations shape students' decisions about integrity (McCabe et al., 2001). Thus, promoting academic honesty requires more than detecting and penalizing misconduct; it also requires creating learning environments in which ethical expectations are communicated clearly and reinforced consistently.

In this context, classroom management practices can help create conditions that support academic honesty. Clear expectations, consistent rule implementation, active monitoring, transparent assessment procedures, and constructive teacher–student communication may reduce ambiguity about acceptable academic behavior. Assessment design is also relevant. Bretag et al. (2019) found that opportunities for misconduct and dissatisfaction with the teaching and learning environment were associated with greater perceived likelihood of contract cheating, underscoring the importance of thoughtful assessment practices and supportive learning environments.

Contemporary digital learning further complicates efforts to promote academic integrity. Easily accessible online information, contract-cheating services, and generative artificial intelligence have expanded the ways students can produce or obtain academic work. Consequently, higher education institutions increasingly emphasize proactive approaches involving clear communication, appropriate assessment design, academic integrity education, and responsible use of digital technologies rather than relying exclusively on surveillance and punishment (Eaton, 2021; Moorhouse et al., 2023). Moorhouse et al. (2023), in particular, found that institutional responses to generative AI commonly emphasize academic integrity, assessment redesign, and explicit communication with students regarding appropriate technology use.

At Universidad de Manila (UDM), understanding how these principles operate within actual classroom settings is important for strengthening preventive and educational approaches to academic integrity. The submitted study involves both teachers and students and examines classroom practices such as establishing expectations, enforcing academic honesty policies, creating an open environment, using varied assessments, and monitoring student work. Examining these practices alongside students' reported academic honesty can provide institution-specific evidence for improving teaching practices and academic integrity initiatives.

Accordingly, this study examines the relationship between classroom management practices and reported academic honesty among Universidad de Manila students, as well as the challenges teachers face in maintaining academic integrity. Because the study employs a descriptive-correlational design, interpret the relationship between the variables as an association rather than evidence of direct causal impact. The findings are intended to provide an empirical basis for strengthening classroom-level strategies and institutional support that promote ethical academic behavior.

STATEMENT OF THE PROBLEM

Academic honesty is essential to maintaining the credibility of higher education, yet its practice may be influenced by how academic expectations, assessment procedures, monitoring, discipline, and ethical standards are managed within the classroom. At Universidad de Manila, teachers employ various classroom management practices such as setting clear expectations, enforcing academic honesty policies, maintaining an open learning environment, using varied assessment strategies, and actively monitoring student work. At the same time, students demonstrate varying levels of awareness, responsibility, honesty in completing academic tasks, and willingness to report dishonest behavior.

Although classroom management and academic honesty are both important components of the teaching-learning process, the study needs to determine how these variables are associated within the UDM context. It is likewise necessary to identify the challenges teachers encounter in promoting academic honesty and to determine whether classroom management practices differ across selected faculty profile characteristics. Because the study uses a descriptive-correlational design, the inquiry should focus on levels, differences, and relationships rather than causal effects.

Accordingly, the study seeks to answer the following research questions:

1. What is the demographic profile of the student respondents in terms of:
 - 1.1 age;
 - 1.2 sex;
 - 1.3 college; and
 - 1.4 year level?
2. What is the profile of the faculty respondents in terms of:
 - 2.1 age;
 - 2.2 academic department; and
 - 2.3 years of teaching experience?
3. What is the reported level of classroom management practices in terms of:
 - 3.1 enforcement of academic honesty policies;
 - 3.2 setting of clear expectations;
 - 3.3 creation of an open classroom environment;
 - 3.4 use of varied assessment strategies; and
 - 3.5 active monitoring?
4. What is the reported level of academic honesty among UDM students in terms of:
 - 4.1 awareness that cheating is a violation;
 - 4.2 sense of responsibility;
 - 4.3 understanding of the effects of dishonesty on the academic environment;
 - 4.4 completion of academic work honestly; and
 - 4.5 willingness to report academic dishonesty?
5. Is there a statistically significant relationship between classroom management practices and reported academic honesty among UDM students?
6. What challenges do teachers report in promoting and maintaining academic honesty in the classroom?
7. What evidence-informed strategies may be proposed to strengthen classroom management practices and promote academic honesty among UDM students?

METHODOLOGY

The study employed a descriptive-correlational research design to describe classroom management practices and levels of academic honesty and to determine whether a statistically significant relationship existed between the two variables. This design was appropriate because the variables were measured as they naturally occurred without experimental manipulation. Correlational research identifies the degree and direction of association between variables but does not establish causality (Creswell & Creswell, 2018). Accordingly, the findings were interpreted in terms of relationships rather than direct effects or impacts.

The study included 70 faculty members and 229 college students from Universidad de Manila, selected through purposive sampling. Participants represented different academic departments, colleges, age groups, year levels, and teaching-experience categories. Purposive sampling was appropriate because respondents were selected based on their relevance to the study as teachers implementing classroom management practices and students experiencing those practices within the university setting (Etikan et al., 2016).

Two structured questionnaires were used, one for faculty respondents and another for students. The instruments employed Likert-type responses and measured classroom management practices, including clear expectations, enforcement of academic honesty policies, an open classroom environment, varied assessment, and active monitoring. The student instrument also assessed reported academic honesty through awareness of cheating, responsibility, honest completion of academic work, understanding of the effects of dishonesty, and willingness to report misconduct.

The researchers collected data by administering surveys after informing respondents of the study's purpose. The researchers ensured informed consent and confidentiality during data collection. Participants completed the appropriate faculty or student questionnaire, after which the researchers organized responses for statistical analysis.

Descriptive statistics, particularly frequencies, percentages, means, and standard deviations, summarized respondent profiles, classroom management practices, and levels of academic honesty. Pearson's product-moment correlation coefficient was used to examine the relationship between classroom management practices and academic honesty, while analysis of variance (ANOVA) was used to test differences across selected profile groups where applicable. These statistical procedures were appropriate for describing distributions, comparing groups, and examining linear associations when the required assumptions were satisfied (Field, 2018).

RESULTS AND DISCUSSION

Demographic Profile of the Student Respondents

The demographic profile provides context for interpreting the succeeding findings on classroom management practices and academic honesty. Table 1 summarizes the distribution of student respondents by age, sex, college, and year level.

Table 20. Demographic Profile of Student Respondents

Profile Variable	Category	Frequency	Percentage
Age	18–20 years old	148	64.6%
	21–23 years old	70	30.6%
	24–26 years old	11	4.8%
Sex	Male	114	49.8%
	Female	115	50.2%
College	CAS	50	21.8%
	CED	38	16.6%
	CBPM	70	30.6%
	CCS	19	8.3%
	CHS	32	14.0%
Year Level	CCJ	20	8.7%
	First Year	75	32.8%
	Second Year	64	27.9%
	Third Year	50	21.8%
	Fourth Year	39	17.0%

The respondents were predominantly 18–20 years old (64.6%), indicating that most were within the typical age range of undergraduate students. The sex distribution was nearly equal, with 50.2% female and 49.8% male respondents, providing balanced representation.

In terms of college affiliation, CBPM had the largest proportion (30.6%), followed by CAS (21.8%) and CED (16.6%). Students from CCS, CHS, and CCJ were also represented, indicating participation from several academic disciplines within Universidad de Manila.

For year level, first-year students comprised the largest group (32.8%), followed by second-year students (27.9%). This suggests that a substantial portion of the sample was still in the earlier stages of university study, when adjustment to institutional expectations and academic norms may be particularly relevant. Academic integrity research emphasizes that ethical behavior is influenced by both individual and contextual factors within the learning environment (McCabe & Treviño, 1997).

The sample was characterized by a young age profile, nearly equal sex distribution, representation from multiple colleges, and greater participation from first- and second-year students. These characteristics provide useful context for interpreting subsequent findings but should not be treated as determinants of academic honesty without further statistical analysis.

Profile of the Faculty Respondents

The faculty profile provides important context for understanding the classroom management practices reported in the study. Table 2 summarizes the distribution of 70 faculty respondents according to age, academic department, and years of teaching experience.

Table 21. Profile of the Faculty Respondents

Profile Variable	Category	Frequency	Percentage
Age	20–29 years old	13	18.6%
	30–39 years old	6	8.6%
	40–49 years old	13	18.6%
	50–59 years old	29	41.4%
	60 years old and above	9	12.9%
Academic Department	CAS	8	11.4%
	CED	12	17.1%
	CCS	13	18.6%
	CHS	2	2.9%
	CBPM	20	28.6%
	CCJ	3	4.3%
	GenEd	12	17.1%
Years of Teaching Experience	1–5 years	19	27.1%
	6–10 years	4	5.7%
	11–15 years	5	7.1%
	16–20 years	11	15.7%
	21–25 years	6	8.6%
	26–30 years	23	32.9%
	More than 30 years	2	2.9%

The largest age group was 50–59 years old (41.4%), indicating that a substantial proportion of the faculty respondents were mature educators. By academic department, CBPM had the highest representation (28.6%), followed by CCS (18.6%), CED (17.1%), and General Education (17.1%). Including faculty from several academic units provided perspectives from different disciplinary settings, although representation across departments was unequal.

Regarding teaching experience, the largest group had 26–30 years of service (32.9%), while 27.1% had 1–5 years of experience. This distribution indicates that the sample included both relatively new and highly experienced faculty members. Teaching experience matters for classroom management because expertise shapes how teachers interpret classroom situations and choose preventive or responsive strategies. Stahnke and Blömeke (2021) found that experienced teachers demonstrated more developed interpretation and decision-making in classroom management situations than novices. Similarly, a systematic review by Albayrak and Ateskan (2022) emphasized the importance of instructor experience, training, and pedagogical strategies in effective classroom management in higher education.

The faculty respondents were largely experienced educators and represented multiple academic departments. These characteristics provide relevant context for interpreting their classroom management practices, but age, department, and years of teaching should not be assumed to determine those practices unless the study's inferential analysis supports it.

Classroom Management Practices

The study assessed classroom management practices from both student and faculty perspectives. Table 3 presents the mean scores, standard deviations, and corresponding interpretations for the five identified classroom management practices.

Table 22. Reported Level of Classroom Management Practices

Classroom Management Practice	Students Mean	SD	Interpretation	Teachers Mean	SD	Interpretation
Enforce academic honesty policies	3.77	0.43	High	3.80	0.44	Very High
Set clear expectations	3.75	0.44	High	3.86	0.35	Very High
Create an open classroom environment	3.74	0.47	High	3.79	0.45	Very High
Use varied assessment strategies	3.72	0.48	High	3.74	0.50	Very High
Active monitoring	3.69	0.57	High	3.76	0.43	Very High
Composite Mean	3.73	0.37	High	3.79	0.35	Very High

The findings indicate that classroom management practices were consistently implemented at high to very high levels. From the students' perspective, enforcement of academic honesty policies received the highest mean ($M = 3.77$), while active monitoring received the lowest, although it remained within the high category ($M = 3.69$). Among faculty respondents, setting clear expectations obtained the highest mean ($M = 3.86$), followed by enforcement of academic honesty policies ($M = 3.80$).

The results suggest that UDM faculty generally emphasized clear expectations, policy enforcement, open communication, varied assessment, and monitoring as part of classroom management. These practices are consistent with contemporary approaches to academic integrity that emphasize preventive measures, transparent expectations, and assessment design rather than relying solely on punitive responses (Bretag et al., 2019; International Center for Academic Integrity [ICAI], 2021).

Teachers reported slightly higher ratings than students across all indicators. However, these differences should be interpreted descriptively because the submitted results do not report a statistical test comparing teacher and student ratings. Overall, the findings indicate a classroom environment in which academic honesty expectations are generally communicated and reinforced, while active monitoring and assessment variation remain areas that may still be strengthened.

Reported Level of Academic Honesty among UDM Students

The study assessed students' reported academic honesty across five indicators. Table 4 presents the corresponding mean scores, standard deviations, and verbal interpretations.

Table 23. Reported Level of Academic Honesty among UDM Students

Academic Honesty Indicator	Mean	SD	Interpretation
Cheating is a violation of academic rules	3.91	0.30	Very High
Sense of responsibility for academic work	3.83	0.38	High
Understanding that dishonesty affects the academic environment	3.83	0.40	High
Completing academic work honestly	3.76	0.44	High
Willingness to report academic dishonesty	3.48	0.70	Moderate
Composite Mean	3.76	0.32	High

The findings indicate an overall high level of reported academic honesty among UDM students, with a composite mean of 3.76. The highest-rated indicator was recognition that cheating constitutes an academic violation ($M = 3.91$), suggesting strong awareness of institutional and ethical expectations. Students also reported high levels of personal responsibility, understanding of the consequences of dishonesty, and commitment to completing academic work honestly.

The comparatively lower rating for willingness to report academic dishonesty ($M = 3.48$) indicates a possible gap between recognizing misconduct and taking action when it is observed. This pattern aligns with academic integrity literature showing that peer norms and social context can influence students' willingness to respond to misconduct even when they understand the behavior is inappropriate (McCabe et al., 2001). Academic integrity therefore involves not only awareness of rules but also responsibility, fairness, trust, and willingness to uphold ethical standards within the academic community (International Center for Academic Integrity [ICAI], 2021).

UDM students demonstrated strong awareness and self-reported commitment to academic honesty, but reporting observed misconduct emerged as the weakest area. This suggests a need to strengthen confidential reporting mechanisms, clarify procedures, and cultivate a classroom climate where students can raise integrity concerns without fear of social repercussions.

Significant Relationship Between Classroom Management Practices and Reported Academic Honesty among UDM Students

The study examined whether classroom management practices were statistically associated with reported academic honesty. As shown in Table 5, both the student and teacher datasets reported significant relationships.

Table 24. Relationship Between Classroom Management Practices and Academic Honesty

Variables	p-value	Decision	Interpretation
Classroom management practices and academic honesty – Students	< .001	Reject H_0	Significant relationship
Classroom management practices and academic honesty – Teachers	< .001	Reject H_0	Significant relationship

The findings indicate that classroom management practices were significantly associated with academic honesty in both student and teacher responses ($p < .001$). This suggests that clearer expectations, consistent enforcement of academic integrity policies, active monitoring, varied assessment, and open classroom communication tend to occur alongside stronger reported academic honesty.

The result is consistent with research showing that academic integrity is shaped not only by individual attitudes but also by contextual factors such as classroom norms, peer culture, assessment practices, and institutional expectations (McCabe et al., 2001). Likewise, Bretag et al. (2019) emphasized that assessment design and the broader learning environment can influence opportunities for academic misconduct.

The results support the importance of consistent and preventive classroom management as part of a broader academic integrity environment, but stronger statistical reporting is needed to determine the magnitude of the relationship.

Challenges Teachers Reported in Promoting and Maintaining Academic Honesty in the Classroom

The study identified three recurring challenges teachers face in promoting academic honesty: limited monitoring, students' reluctance to report dishonest behavior, and variation in assessment strategies.

These concerns indicate that maintaining academic integrity involves both classroom-level practices and the broader social and assessment environment.

Table 25. Challenges Reported by Teachers in Promoting Academic Honesty

Reported Challenge	Interpretation	Implication
Limited monitoring	Teachers may find it difficult to consistently observe and verify student behavior during assessments and academic tasks	Strengthen preventive monitoring practices and assessment design
Students' reluctance to report dishonesty	Students may recognize misconduct but hesitate to report peers because of social pressure or fear of negative consequences	Develop confidential reporting mechanisms and reinforce shared responsibility
Variation in assessment strategies	Differences in assessment design may create inconsistent opportunities for academic dishonesty	Promote more structured, varied, and integrity-oriented assessment practices

Limited monitoring was identified as a major concern, particularly because teachers may not always detect misconduct during examinations, written tasks, or technology-assisted activities. This supports preventive classroom management strategies and carefully designed assessments rather than relying solely on detection after misconduct has occurred. Bretag et al. (2019) emphasized that assessment design can influence opportunities for academic misconduct and that more authentic and varied assessment approaches may reduce such risks.

Students' reluctance to report dishonest behavior was another challenge. This finding is consistent with the earlier result showing that willingness to report dishonesty received the lowest academic honesty rating among students. McCabe et al. (2001) noted that peer norms and the surrounding academic culture can influence whether students challenge or tolerate dishonest behavior. Thus, academic integrity initiatives should promote shared responsibility while ensuring that reporting procedures are clear, confidential, and fair.

The reported variation in assessment strategies also suggests a need for greater consistency in how academic honesty is embedded in assessment practices. Academic integrity is more effectively supported when expectations, assessment procedures, and consequences are clearly communicated and applied consistently across courses (International Center for Academic Integrity [ICAI], 2021).

The findings suggest that teachers face practical, social, and assessment-related challenges in maintaining academic honesty. Addressing these concerns requires stronger monitoring support, clearer reporting mechanisms, and more consistent integrity-oriented assessment practices.

Proposed Evidence-Informed Strategies to Strengthen Classroom Management Practices and Promote Academic Honesty Among UDM Students

The findings indicate that classroom management practices were generally rated high to very high, while students also reported a high level of academic honesty. However, weaker areas included active monitoring, students' willingness to report misconduct, and consistency in assessment practices. These findings provide a basis for targeted strategies that emphasize prevention, transparency, shared responsibility, and supportive classroom environments.

Table 26. Proposed Strategies to Strengthen Classroom Management and Academic Honesty

Identified Need/Challenge	Evidence-Informed Strategy	Intended Outcome
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Limited monitoring	Strengthen active monitoring during examinations and major assessments; use structured supervision and appropriate assessment controls	Reduce opportunities for academic misconduct
Reluctance to report dishonesty	Establish clear and confidential reporting procedures and communicate protection from retaliation	Increase students' willingness to report integrity concerns
Variation in assessment practices	Encourage varied, authentic, and application-based assessments	Reduce opportunities for copying, plagiarism, and unauthorized assistance
Need for clearer expectations	Require explicit academic integrity guidelines in course syllabi, assessment instructions, and classroom discussions	Improve understanding of acceptable and unacceptable academic behavior
Inconsistent policy implementation	Promote consistent implementation of academic honesty policies and proportionate consequences	Strengthen fairness and credibility of integrity procedures
Need for student engagement	Conduct academic integrity orientations, classroom discussions, and student-teacher dialogues	Build shared responsibility for ethical academic behavior
Need for faculty support	Provide faculty development on assessment design, digital integrity, monitoring, and handling misconduct	Strengthen teachers' capacity to prevent and manage academic dishonesty

The first priority is to strengthen preventive classroom management. The study already rated clear expectations, consistent policy enforcement, and active monitoring positively, suggesting these practices should be sustained and further standardized across classes. Academic integrity is more effectively supported when students clearly understand expectations and perceive policies as fair and consistently implemented (International Center for Academic Integrity [ICAI], 2021).

A second priority is improving assessment design. Because teachers reported variation in assessment strategies, UDM may encourage authentic, application-based, and varied assessments that require students to demonstrate individual reasoning and contextual understanding. Bretag et al. (2019) emphasized that assessment design can influence opportunities for academic misconduct and that thoughtful assessment practices can reduce vulnerability to cheating.

Students' relatively moderate willingness to report dishonesty also indicates a need for confidential, clearly communicated reporting mechanisms. Peer norms can influence students' decisions to tolerate or report misconduct (McCabe et al., 2001). Creating a culture in which academic integrity is viewed as a shared responsibility may therefore be more effective than relying solely on punitive responses.

Finally, faculty development should support consistent classroom management, assessment design, digital monitoring, and appropriate responses to academic misconduct. Overall, the proposed strategies emphasize prevention, fairness, communication, and collaboration. These recommendations draw on the study findings and relevant literature and should be evaluated after implementation rather than assumed effective in advance.

CONLUCTIONS

The study concludes that classroom management practices at Universidad de Manila are generally implemented at a high to very high level. Both students and faculty reported strong implementation of practices related to setting clear expectations, enforcing academic honesty policies, creating an open classroom environment, using varied assessments, and actively monitoring student work. These findings indicate that UDM classrooms generally provide structures that support academic integrity.

Students also reported a high overall level of academic honesty. They showed strong awareness that cheating constitutes an academic violation and reported high levels of responsibility, understanding of the consequences of dishonesty, and commitment to completing academic work honestly. However, willingness to report observed academic dishonesty was comparatively lower, suggesting that awareness of ethical standards does not always translate into active reporting of misconduct.

The study further found a statistically significant relationship between classroom management practices and reported academic honesty, with p -values below .001 in both student and teacher datasets. This indicates that stronger classroom management tends to be associated with higher reported academic honesty. However, because the study used a descriptive-correlational design and the manuscript did not report the corresponding correlation coefficients, interpret the findings as evidence of association rather than direct causal influence.

Teachers also reported practical challenges in maintaining academic honesty, particularly limited monitoring, students' reluctance to report misconduct, and variation in assessment strategies. These findings show that promoting academic integrity requires more than policy enforcement alone. Effective practice also depends on consistent monitoring, appropriate assessment design, clear reporting mechanisms, and a classroom climate that encourages shared responsibility for ethical academic behavior.

The study supports a preventive and collaborative approach to academic integrity at UDM. Strengthening clear expectations, consistent policy implementation, active monitoring, varied and authentic assessments, confidential reporting procedures, student orientation, and faculty development may further reinforce academic honesty. The findings suggest that classroom management is an important institutional and instructional context for promoting ethical academic behavior, but future studies should provide more complete statistical reporting and examine these relationships across broader samples and settings.

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which contributed to the development of evidence-informed strategies to strengthen academic integrity at UDM.

Ultimately, this study reflects the collective contribution of individuals and institutional units committed to academic integrity, ethical learning, responsible teaching, research, and evidence-informed educational practice. Their participation and support underscore the importance of a collaborative academic environment in which faculty members and students share responsibility for promoting honesty, fairness, accountability, and integrity across the teaching-learning process.

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AI Tool Utilization, AI-Related Academic Integrity Attitudes, and Perceived Learning Outcomes among Third-Year Students at Universidad de Manila: Implications for Institutional AI Policy

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ABSTRACT

This study examined the utilization of artificial intelligence (AI) tools, AI-related attitudes toward academic integrity, and perceived academic outcomes among third-year students at Universidad de Manila, and derived implications for institutional AI policy. A quantitative, descriptive-correlational, cross-sectional design was employed among 364 third-year undergraduate students selected through stratified random sampling across academic programs. Data were gathered using a researcher-developed questionnaire that covered the frequency, purpose, and types of AI tools used; the extent of reliance on them; attitudes toward academic integrity; and perceived academic outcomes. Descriptive statistics and multiple regression analysis were used. Results showed selective AI use, with greater use for mathematical or technical problem-solving, idea generation, and grammar or writing enhancement, while overall reliance remained low. Students generally recognized important boundaries in academic integrity, particularly that AI should support rather than fully generate academic content, although endorsement of disclosure requirements was comparatively weak. Perceived benefits were stronger for writing and comprehension than for grade improvement. Regression results indicated that the purpose of use and the type of AI tools were significantly associated with the submitted academic integrity score, while the purpose, type, and extent of reliance were associated with perceived improvements in writing and comprehension. No AI-use dimension was significantly associated with perceived grade improvement. These findings support an institutional AI policy emphasizing permitted and prohibited uses, disclosure, human accountability, AI literacy, privacy, equitable access, assessment redesign, and due process. Given the cross-sectional, self-reported measures and unresolved validity issues, the findings should be interpreted as exploratory associations rather than as causal evidence. Further validation is therefore necessary before high-stakes institutional decisions are made.

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INTRODUCTION

Artificial intelligence has become increasingly integrated into higher education through generative AI, writing assistants, intelligent tutoring, automated feedback, and task-specific applications. Students can now use AI for idea generation, explanation, writing support, summarization, and problem-solving. Reviews of AI in higher education indicate that these technologies are expanding across teaching, learning, assessment, and student support, creating both educational opportunities and governance challenges (Crompton & Burke, 2023).

The educational value of AI depends largely on how it is used. AI may support learning through feedback, explanation, brainstorming, and language improvement, but excessive reliance can also reduce

opportunities for independent reasoning and authentic student work. UNESCO advocates a human-centered approach that preserves human agency, privacy, equity, transparency, and meaningful learning while strengthening institutional AI literacy and governance (Miao & Holmes, 2023).

Academic integrity is therefore a central concern. Generative AI complicates the distinction between legitimate assistance and inappropriate substitution of student work. Students themselves appear to differentiate among forms of AI use. Johnston et al. (2024) found greater student acceptance of assistive uses than of generating entire academic outputs, together with strong support for clearer institutional guidance. This suggests that effective policy should define acceptable use, disclosure expectations, and student accountability rather than classify all AI use as misconduct.

Assessment practices face similar challenges. Kofinas et al. (2025) found that markers could not reliably distinguish work produced with and without generative AI input and that authentic assessment alone did not eliminate vulnerability to AI-assisted manipulation. AI-detection systems also have documented reliability limitations and should not be treated as definitive evidence of academic misconduct (Weber-Wulff et al., 2023). Consequently, universities need assessment approaches that emphasize reasoning, process evidence, transparency, and human accountability.

Recent systematic evidence further indicates that higher education institutions require coordinated responses that address AI literacy, academic integrity standards, assessment redesign, and institutional governance, rather than blanket prohibitions or reliance on detection technologies (Bittle & El-Gayar, 2025). Institutional policies should therefore clarify permitted and prohibited uses, disclosure requirements, privacy safeguards, equitable access, and responsibilities of students and faculty.

Within Universidad de Manila, institution-specific evidence is needed to inform such policies. The present study examines AI tool utilization among third-year students in terms of frequency, purpose, types of tools used, and extent of reliance; describes AI-related attitudes toward academic integrity; and assesses perceived changes in grades, writing, and comprehension. It also examines reported associations among these variables to inform institutional AI policy development. Because the study is cross-sectional and relies largely on self-reported measures, its findings should be interpreted as patterns and associations rather than evidence that AI use causes improvements in academic performance, learning, or academic integrity.

STATEMENT OF THE PROBLEM

The increasing use of artificial intelligence in higher education has created new opportunities for academic support while also raising concerns regarding reliance, transparency, academic integrity, and the quality of student learning. Students may use AI for different purposes, including idea generation, writing assistance, grammar improvement, technical problem-solving, and explanation of complex concepts. However, the extent and purpose of AI use may vary considerably among students, and frequent use does not necessarily imply dependence or inappropriate academic behavior.

At Universidad de Manila, there is a need to determine how third-year students report using AI tools and how they perceive the ethical boundaries associated with AI-assisted academic work. Particular attention is needed regarding reliance on AI, disclosure of AI assistance, use of AI-generated content, and concerns about independent and critical thinking. The study must also distinguish between actual academic performance and students' perceived improvements in grades, writing, and comprehension because the instrument measures self-reported changes rather than verified GPA or objective learning gains.

The study further seeks to examine whether dimensions of AI utilization are associated with measures of academic integrity and perceived learning outcomes. However, these relationships must be interpreted with caution because several scales require further clarification regarding item direction, construct validity, and scoring. Accordingly, the study does not seek to establish that the use of AI improves learning or academic integrity. Instead, it provides institution-specific evidence that may guide the development of a clear, balanced, and evidence-informed AI policy for Universidad de Manila.

Specifically, the study sought to answer the following research questions:

1. What is the reported level of AI tool utilization among third-year students in terms of:
 - 1.1 frequency of use;
 - 1.2 purpose of use;
 - 1.3 type of AI tools used; and
 - 1.4 extent of reliance?
2. What are the students' AI-related academic integrity attitudes?
3. What perceived AI-related changes do students report in terms of:
4. What associations are reported between the dimensions of AI tool utilization and:
 - 4.1 AI-related academic integrity scores;
 - 4.2 perceived grade improvement; and
 - 4.3 perceived writing and comprehension improvement?
5. What evidence-informed components for an institutional AI policy at Universidad de Manila may be derived from the findings?

METHODOLOGY

The study employed a quantitative, descriptive-correlational, cross-sectional research design. This design was appropriate because the study sought to describe patterns of artificial intelligence (AI) utilization, AI-related academic integrity attitudes, and perceived learning outcomes, and to examine statistical associations among these variables without manipulating the study conditions. Descriptive-correlational designs are appropriate when researchers aim to characterize variables and determine whether measurable relationships exist among them, whereas cross-sectional designs collect information from participants at a single point in time (Creswell & Creswell, 2018; Wang & Cheng, 2020).

The participants consisted of 364 third-year undergraduate students enrolled at Universidad de Manila during Academic Year 2025–2026. Third-year students were selected as the target population because they had substantial exposure to university-level academic requirements and were likely to have encountered AI-assisted technologies in their coursework.

The study employed stratified random sampling to provide representation from different academic programs. Stratified sampling is appropriate when a population consists of identifiable subgroups because it improves representation by ensuring that relevant strata are included in the sample (Lohr, 2021). Data were collected using a researcher-developed questionnaire designed to measure the study's principal variables. The instrument contained dimensions covering Frequency of Use, Purpose of Use, Type of AI Tools Used, Extent of Reliance, Academic Integrity, and Academic Performance. The AI-utilization dimensions assessed how often students used AI, the academic purposes for which they used it, the types of tools they accessed, and students' reported dependence on AI-assisted academic work.

Data were collected through a survey method using the researcher-developed questionnaire. Survey research was appropriate because it enabled the standardized collection of self-reported information on AI utilization, attitudes toward academic integrity, and perceived learning outcomes from a relatively large group of students (Creswell & Creswell, 2018). Participation was voluntary, and respondents were informed of the purpose of the study prior to completing the questionnaire. Confidentiality and protection of participant information were observed.

Both descriptive and inferential statistics were employed. Descriptive statistics, including means and other summary measures, were used to characterize students' reported AI use, attitudes toward academic integrity, and perceived learning outcomes. These procedures were appropriate for identifying patterns and relative levels across the measured dimensions.

For inferential analysis, Pearson correlation and multiple regression analysis were used to examine associations between dimensions of AI utilization and the submitted academic integrity and perceived learning outcome scores. Pearson correlation is appropriate for evaluating the direction and strength of linear associations between continuous variables, whereas multiple regression permits examination of the

statistical contribution of several predictors to an outcome variable while accounting for the other predictors in the model (Field, 2018).

RESULTS AND DISCUSSION

Self-Reported AI Tool Utilization

Table 27. Reported AI Tool Utilization

Dimension	Selected result	Mean	Interpretation
Frequency of use	Regular use for academic tasks	2.72	High
	Dimension mean	2.37	Low utilization
Purpose of use	Idea generation	2.86	High
	Dimension mean	2.72	High utilization
Type of tools	Mathematical or technical problem solving	3.09	High
	Grammar and writing enhancement	2.78	High
	Dimension mean	2.68	High utilization
Extent of reliance	Dependence on AI for academic work	2.00	Low
	Dimension mean	2.11	Low utilization
AI-use items	Composite mean	2.47	Low utilization

Table 1 indicates that AI use among third-year students was selective rather than uniformly intensive. The overall composite mean was 2.47, interpreted as Low utilization; however, the dimension-level results show important differences in how students use AI. Frequency of use was relatively low overall ($M = 2.37$), although regular use for academic tasks received a higher mean of 2.72. This suggests that students may use AI when needed rather than as a constant academic tool.

Purpose of use obtained a High dimension mean of 2.72, with idea generation rated at $M = 2.86$. The type-of-tools dimension was likewise High ($M = 2.68$), with the strongest use reported for mathematical or technical problem solving ($M = 3.09$) and grammar and writing enhancement ($M = 2.78$). These findings suggest that students tend to use AI for specific academic functions rather than for indiscriminate or generalized use. This pattern is consistent with Rajki et al. (2025), who found that university students' AI use varied according to task, tool type, academic context, and perceived usefulness.

The extent-of-reliance dimension was Low ($M = 2.11$), while reported dependence on AI for academic work had a mean of 2.00. This indicates that respondents generally did not perceive themselves as highly dependent on AI despite using it for selected academic purposes. Such a pattern is relevant because educationally responsible use of AI should support, rather than replace, students' reasoning and academic work. UNESCO similarly emphasizes that AI should augment human learning while preserving student agency and meaningful intellectual engagement (Miao & Holmes, 2023).

The composite mean of 2.47 should nevertheless be interpreted cautiously. Frequency, purpose, type of tools, and reliance represent conceptually different dimensions. A high score for purposeful use does not have the same meaning as a high score for dependence. Likewise, the use of grammar tools, mathematical applications, and text-generating systems represents different forms of AI engagement. The dimensions are therefore more informative when interpreted separately rather than reduced to a single overall utilization score.

The findings suggest that third-year students use AI strategically for specific academic tasks, particularly technical problem-solving, idea generation, and writing support, while reporting relatively low dependence. This supports the need for institutional guidance that promotes purposeful, transparent, and learning-centered AI use rather than focusing solely on frequency of use.

Students' AI-Related Academic Integrity Attitudes

Table 28. AI-Related Academic Integrity Attitudes

Item or dimension	Mean	Level	Interpretation
Concern that AI may hinder independent learning	2.77	High	Concern about overreliance
Prioritizing AI-generated content over own ideas	1.81	Low	Low endorsement of substitution
Disclosure of AI assistance is necessary	2.34	Low	Weak or uncertain disclosure endorsement
Heavy AI reliance violates academic honesty	2.75	High	Stronger integrity-oriented boundary
AI should support, not fully generate, academic content	3.08	High	Strongest integrity-oriented boundary
AI reduces the need for critical thinking	2.63	High	Perceived cognitive-risk concern
Comfort using AI for graded assignments	2.27	Low	Limited comfort
Composite Academic Integrity Score	2.50	High Integrity	

Table 2 shows that students generally recognized important ethical boundaries in AI-assisted academic work. The strongest response was that AI should support rather than fully generate academic content ($M = 3.08$), followed by concern that AI may reduce independent learning ($M = 2.77$) and the view that heavy reliance on AI may violate academic honesty ($M = 2.75$). These results suggest that respondents distinguish between AI as an academic support tool and AI as a substitute for their own intellectual work.

Students also reported low endorsement of prioritizing AI-generated content over their own ideas ($M = 1.81$) and limited comfort in using AI for graded assignments ($M = 2.27$). This pattern is consistent with Johnston et al. (2024), who found that university students differentiate among acceptable and unacceptable forms of generative AI use and generally favor clearer institutional guidance on appropriate academic use.

A notable concern is the relatively low endorsement of the need to disclose AI assistance ($M = 2.34$). Students may recognize that full-content generation and overreliance are problematic yet remain uncertain about when and how AI use should be disclosed. This represents an important policy gap because academic integrity requires transparency, responsibility, and honesty in the production of academic work (International Center for Academic Integrity [ICAI], 2021). Recent reviews likewise emphasize the need for explicit institutional rules on disclosure, attribution, and permitted AI assistance (Bittle & El-Gayar, 2025).

The reported composite score of 2.50, labeled High Integrity, should nevertheless be interpreted cautiously. The items measure different concepts, including reliance, substitution, disclosure, critical-thinking concerns, and comfort with AI use, and some items have opposite scoring directions. Therefore, the composite score should not be treated as a validated measure of academic integrity until the scale structure and reverse-scoring procedures are established.

The findings indicate that students demonstrate general awareness of responsible AI use, particularly the principle that AI should assist rather than replace student work. However, uncertainty about disclosure suggests the need for clear, university-wide guidance that defines acceptable use, required transparency, and student accountability.

Students' Perceived AI-related Outcomes

Table 29. Perceived Academic Outcomes

Outcome area	Result	Mean	Interpretation
Perceived grade improvement	My GPA has improved since I started using AI	2.14	Low perceived improvement
Perceived grade improvement	AI helps me achieve higher grades	2.21	Low perceived improvement
Perceived grade improvement	Dimension mean	2.18	Perceived grade improvement, not actual GPA
Writing and comprehension	AI helps me understand complex topics	2.88	Higher perceived benefit
Writing and comprehension	Improved comprehension through AI-assisted learning	2.67	Higher perceived benefit
Writing and comprehension	Dimension mean	2.69	Perceived writing/comprehension improvement

Table 3 indicates that students perceived greater benefits of AI for writing and comprehension than for grades. The writing and comprehension dimension obtained a mean of 2.69, with the highest response indicating that AI helps students understand complex topics ($M = 2.88$). Perceived improvement in comprehension through AI-assisted learning was likewise relatively greater ($M = 2.67$). These findings suggest that students view AI primarily as a tool for explanation, clarification, and academic support rather than as a direct means of improving grades.

This pattern is consistent with research showing that AI applications in higher education may support personalized explanation, feedback, writing assistance, and learning support when used appropriately (Crompton & Burke, 2023). Ateeq et al. (2024) similarly emphasize that AI can contribute to learning processes, but its educational value depends on assessment design and the preservation of meaningful student engagement.

In contrast, perceived grade improvement was relatively low ($M = 2.18$). Students reported low agreement that their GPA had improved since using AI ($M = 2.14$) or that AI helped them achieve higher grades ($M = 2.21$). These findings indicate that respondents did not strongly perceive AI use as translating directly into better academic grades.

The term "GPA improvement" should be interpreted with caution, however, because the study did not collect actual GPA records. The items measure students' perceptions of AI's contribution to improved grades rather than objectively verified academic performance. Therefore, the findings cannot establish that AI use improved, reduced, or had no effect on actual GPA.

The results suggest that students perceive AI as more beneficial for supporting comprehension and academic processes than for improving grades. This distinction reinforces the need for institutional AI policy and instruction to emphasize AI as a learning-support tool that strengthens understanding and student reasoning, rather than as a shortcut to higher academic performance.

Associations of Dimensions of AI Tool Utilization with AI-Related Academic Integrity, Perceived Grade Improvement and Perceived Writing and Comprehension Improvement

Table 30. Regression Analysis

AI-Use Dimension	Academic Integrity score β (p)	Perceived Grade Improvement β (p)	Perceived Writing/Comprehension β (p)
Frequency of use	-0.018 (.716)	-0.026 (.680)	-0.124 (.052)
Purpose of use	0.140 (.007)	0.084 (.206)	0.554 (<.001)
Type of AI tools used	0.097 (.046)	0.041 (.506)	0.314 (<.001)
Extent of reliance	0.034 (.401)	-0.050 (.329)	0.138 (.009)

The regression results indicate that the different dimensions of AI utilization were associated with the measured outcomes in different ways. For the submitted academic integrity score, purpose of AI use ($\beta = .140$, $p = .007$) and type of AI tools used ($\beta = .097$, $p = .046$) showed statistically significant positive associations. Frequency of use ($\beta = -.018$, $p = .716$) and extent of reliance ($\beta = .034$, $p = .401$) were not significant. This suggests that how and why students use AI may be more relevant to their reported integrity attitudes than how frequently they use it. However, this interpretation remains provisional because the academic integrity scale contains items with different conceptual meanings and scoring directions.

None of the AI-use dimensions showed a statistically significant association with perceived grade improvement. Frequency ($p = .680$), purpose ($p = .206$), type of tools ($p = .506$), and reliance ($p = .329$) were all nonsignificant. This finding is consistent with the descriptive results showing relatively low perceived grade improvement and further indicates that reported AI utilization cannot be assumed to translate into higher academic grades. Importantly, the outcome represents students' perceptions of grade improvement rather than verified GPA.

The strongest reported associations were observed for perceived improvements in writing and comprehension. Purpose of use showed the largest positive coefficient ($\beta = .554$, $p < .001$), followed by type of AI tools used ($\beta = .314$, $p < .001$) and extent of reliance ($\beta = .138$, $p = .009$). Frequency of use was not statistically significant ($\beta = -.124$, $p = .052$). The pattern suggests that purposeful, task-specific AI use may be more closely associated with perceived learning benefits than the simple frequency of use. This is consistent with higher-education research emphasizing that the educational value of AI depends on how tools are integrated into learning tasks rather than on exposure alone (Crompton & Burke, 2023; Rajki et al., 2025).

These findings also support a policy approach that emphasizes purposeful and responsible AI use. Institutional guidance should focus not only on how often students use AI but also on the purposes for which they use it, the types of tools they employ, and whether AI complements or substitutes for student reasoning. Contemporary policy frameworks similarly emphasize AI literacy, transparent expectations, human accountability, and pedagogically appropriate integration rather than blanket restrictions on AI use (Bittle & El-Gayar, 2025; Chan, 2023).

Evidence-Informed Components for an Institutional AI Policy at Universidad de Manila

The findings support the development of a balanced institutional AI policy that promotes responsible use rather than either unrestricted adoption or blanket prohibition. Students reported selective use of AI, particularly for idea generation, writing support, and technical problem-solving, while also showing relatively low dependence. At the same time, they recognized that AI should support rather than replace student work, although disclosure expectations were less clearly endorsed. These patterns indicate that policy should focus on purpose, transparency, accountability, and learning value rather than on frequency of AI use alone.

First, the policy should clearly define permitted, restricted, and prohibited uses of AI across different academic tasks. Acceptable assistance may include brainstorming, explanation, grammar support, coding assistance, or technical problem-solving, while full-content generation or substitution for required student reasoning may be restricted depending on the assessment. Faculty should indicate the allowable level of AI assistance for each activity. Chan (2023) emphasizes that effective higher-education AI policy should integrate pedagogical, governance, and operational dimensions.

Second, the university should establish AI disclosure and attribution requirements. The relatively low endorsement of disclosure in the findings indicates a need for clearer expectations. Students should be required, when applicable, to identify the AI tool used, its purpose, and the extent of assistance received. Such transparency is consistent with the principles of honesty and responsibility underlying academic integrity (International Center for Academic Integrity [ICAI], 2021).

Third, the policy should emphasize human accountability. Students must remain responsible for the accuracy, reasoning, originality, citations, and final content of submitted work even when AI tools are used. UNESCO recommends that generative AI be used in ways that preserve human agency and meaningful learning rather than replace human judgment (Miao & Holmes, 2023).

Fourth, the findings support the redesign of assessments. Because students reported greater perceived benefits for writing and comprehension than for grades, AI may be most useful when incorporated as a learning support rather than as a shortcut to academic performance. Assessments may therefore include staged submissions, oral explanations, reflections, source verification, drafts, and demonstrations of reasoning. Recent literature similarly recommends holistic and process-oriented assessment strategies in response to generative AI (Ateeq et al., 2024; Kofinas et al., 2025).

Fifth, the university should implement AI literacy programs for students and faculty covering appropriate prompting, verification of AI-generated information, hallucinations, bias, citation, privacy, intellectual property, and ethical use. This is particularly important because purposeful use showed stronger associations with perceived benefits in writing and comprehension than frequency of use. Recent reviews identify AI literacy as a central institutional response to generative AI in higher education (Bittle & El-Gayar, 2025).

Sixth, the policy should address privacy, data protection, and equitable access. Students and faculty should not upload confidential, personally identifiable, examination-related, research-participant, or institutionally protected information into unapproved public AI systems. The university should also avoid assessment practices that disadvantage students who cannot afford premium AI tools unless equitable institutional access is provided (Miao & Holmes, 2023).

Seventh, AI-detection technologies should be governed by due process and evidentiary safeguards. Detection scores should not serve as the sole basis for academic misconduct decisions because existing AI-text detection systems have demonstrated limitations in reliability (Weber-Wulff et al., 2023). Misconduct cases should instead consider multiple sources of evidence and established academic procedures.

Finally, the policy should provide for faculty discretion within university-wide standards and periodic review. Disciplines may require different rules for AI use, but expectations should remain consistent with institutional principles on transparency, accountability, privacy, and academic integrity. Because AI technologies and educational practices are rapidly changing, the policy should be reviewed regularly with participation from faculty, students, administrators, information technology personnel, librarians, data privacy officers, and other relevant stakeholders.

The findings support an institutional AI policy built around clear permitted-use rules, disclosure, human accountability, assessment redesign, AI literacy, privacy protection, equitable access, due process, and regular policy review. These components respond directly to the patterns identified in the study and provide

a practical framework for integrating AI into academic work while preserving learning, integrity, and institutional responsibility.

CONCLUSIONS

The study concludes that third-year students at Universidad de Manila use artificial intelligence selectively, with greater use for specific academic purposes such as idea generation, writing and grammar support, and mathematical or technical problem-solving. At the same time, respondents reported relatively low dependence on AI, suggesting that AI is being used more as an academic support tool than as a complete substitute for student work.

Students also demonstrated awareness of important boundaries in academic integrity. They generally supported the principle that AI should assist rather than fully generate academic content and expressed concern about excessive reliance and reduced independent thinking. However, the relatively weak endorsement of AI-use disclosure indicates a significant area for institutional clarification. This suggests that students may understand some ethical limits of AI use while remaining uncertain about when and how AI assistance should be acknowledged.

With respect to perceived academic outcomes, students reported greater benefits for writing and comprehension than for grade improvement. AI was perceived as useful for understanding complex topics and supporting comprehension, but respondents did not strongly believe that using AI resulted in higher grades. Because actual GPA was not measured, these findings should be interpreted as students' perceptions of academic improvement rather than evidence of objectively improved academic performance.

The reported regression results further suggest that the purpose of AI use and the type of AI tools used were associated with the submitted academic integrity score, while purpose, tool type, and extent of reliance were associated with perceived writing and comprehension improvement. None of the AI-use dimensions was significantly associated with perceived grade improvement. These findings indicate that the way students use AI may be more relevant than the frequency of use alone. However, the regression results remain provisional because the academic integrity scale, the classification of AI tool types, and other measurement issues require further validation and complete statistical reporting.

The findings provide sufficient institutional evidence to support the development of a comprehensive AI policy for Universidad de Manila. Such a policy should clearly define permitted and prohibited AI uses, establish disclosure and attribution requirements, preserve human accountability, strengthen AI literacy, protect privacy and ensure equitable access, promote appropriate redesign of assessments, and ensure due process in academic integrity cases. AI-detection results should not be used as the sole basis for determining misconduct, and institutional guidelines should be reviewed regularly as AI technologies and educational practices evolve.

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This study reflects the collective contribution of individuals and institutional units committed to research, academic integrity, responsible technology use, and evidence-informed educational practice. Their support underscores the value of scholarly inquiry in guiding institutional policies and promoting the responsible integration of artificial intelligence in teaching and learning.

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Associations of Work-Life Balance and Perceived Institutional Support with Job Satisfaction and Self-Reported Productivity among Employees of a Higher Education Institution

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ABSTRACT

This study examined the associations of work-life balance and perceived institutional support with job satisfaction and self-reported productivity among employees of Universidad de Manila. A quantitative descriptive-correlational, cross-sectional design was used. The study involved 85 employees, including administrative staff, faculty members, academic heads, and administrative heads, selected through purposive sampling. Data were gathered using a structured researcher-made questionnaire and analyzed using descriptive and inferential statistics. Results showed generally favorable levels of work-life balance ($M = 3.01$), job satisfaction ($M = 2.92$), self-reported productivity ($M = 3.31$), and perceived institutional support ($M = 2.72$). No statistically significant differences were reported across age and sex groups for the four study variables, while position-based comparisons require reanalysis due to inconsistencies in the reported tests and degrees of freedom. Correlation results showed significant positive associations between work-life balance and job satisfaction ($r = .812, p < .001$), work-life balance and self-reported productivity ($r = .622, p < .001$), work-life balance and institutional support ($r = .750, p < .001$), job satisfaction and self-reported productivity ($r = .622, p < .001$), job satisfaction and institutional support ($r = .856, p < .001$), and self-reported productivity and institutional support ($r = .527, p < .001$). The findings support institutional attention to workload management, responsive leadership, communication, employee well-being, and role-sensitive support. These results provide an evidence-informed basis for strengthening sustainable employee support practices within the university. Because the study used purposive sampling, self-report measures, and a cross-sectional design, the findings indicate associations rather than causal effects.

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INTRODUCTION

Work-life balance is a significant concern in higher education, where employees manage teaching, administrative responsibilities, deadlines, service demands, and work that may extend beyond regular hours. It refers not merely to the absence of work-family conflict but to the capacity to meet expectations across work and nonwork roles (Carlson et al., 2009). Within institutions, work-life balance is shaped by workload, scheduling, autonomy, leadership, and access to organizational resources.

The Job Demands-Resources Theory provides a useful framework for understanding these conditions. Job demands require sustained physical or psychological effort, whereas job resources help employees manage demands, maintain motivation, and protect well-being (Bakker & Demerouti, 2017). In higher education, workload, competing responsibilities, and deadline pressure may function as demands, while

supervisory support, adequate resources, flexible work arrangements, and effective communication may serve as resources.

Perceived institutional support is likewise important because employees develop judgments about whether their organization values their contributions and supports their well-being. Meta-analytic evidence links perceived organizational support with favorable employee attitudes, well-being, and performance-related outcomes (Kurtessis et al., 2017). More recent research also highlights the importance of organizational and personal resources in sustaining employee well-being and productivity under demanding work conditions (Martínez-Martínez et al., 2024).

Evidence from higher education further demonstrates that work-life experiences are associated with job satisfaction. Dorenkamp and Ruhle (2019) found that work-to-life conflict was related to lower job satisfaction among academics, while Boakye et al. (2023) reported significant relationships between work-life balance dimensions and job satisfaction in tertiary education institutions. In the Philippine context, Pateña (2024) likewise emphasized work-life balance as an important consideration in organizational productivity among state universities and colleges.

However, work-life balance, institutional support, job satisfaction, and productivity should not automatically be interpreted as causal relationships. Cross-sectional associations cannot establish temporal direction, and questionnaire-based productivity represents self-reported productivity rather than independently verified performance. The attached study similarly relies on a descriptive-correlational design and employee self-reports.

The present study examines work-life balance, perceived institutional support, job satisfaction, and self-reported productivity among employees of Universidad de Manila. It seeks to describe these workplace conditions and outcomes, examine their associations, and derive evidence-informed recommendations concerning workload, employee well-being, communication, and institutional support. Therefore, findings are interpreted as patterns and relationships rather than evidence that work-life balance or institutional support directly causes higher satisfaction or productivity.

STATEMENT OF THE PROBLEM

Work-life balance and institutional support are important workplace conditions in higher education because employees manage a range of teaching, administrative, supervisory, and service responsibilities. When these demands overlap with personal and family responsibilities, employees may experience differences in job satisfaction, perceived productivity, and overall well-being. At the same time, institutional resources such as supportive leadership, clear communication, reasonable workload allocation, access to resources, and employee-support mechanisms may help personnel manage workplace demands more effectively.

At Universidad de Manila, there is a need to describe employees' perceptions of work-life balance, job satisfaction, self-reported productivity, and institutional support and to determine whether these workplace perceptions vary across selected demographic groups. Examining these patterns can provide institution-specific evidence for identifying areas that may require stronger organizational support.

The study also seeks to examine the associations among work-life balance, perceived institutional support, job satisfaction, and self-reported productivity. However, because the study employs a descriptive-correlational, cross-sectional design, any identified relationships should be interpreted as associations rather than causal effects. Productivity is likewise treated as self-reported unless independently verified performance measures are available.

Accordingly, the study sought to answer the following research questions:

1. What is the demographic profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 sex;
 - 1.3 position;

2. What are the reported levels of:
 - 2.1 work-life balance;
 - 2.2 job satisfaction;
 - 2.3 self-reported productivity; and
 - 2.4 perceived institutional support?
3. Are there statistically significant differences in work-life balance, job satisfaction, self-reported productivity, and perceived institutional support when respondents are grouped according to selected demographic characteristics?
4. What associations exist among:
 - 4.1 work-life balance and job satisfaction;
 - 4.2 work-life balance and self-reported productivity;
 - 4.3 work-life balance and perceived institutional support;
 - 4.4 perceived institutional support and job satisfaction;
 - 4.5 perceived institutional support and self-reported productivity; and
 - 4.6 job satisfaction and self-reported productivity?
5. What evidence-informed institutional recommendations may be derived from the findings to strengthen employee support, workload management, communication, and well-being at Universidad de Manila?

METHODOLOGY

The study used a quantitative descriptive-correlational, cross-sectional design to describe employees' work-life balance, job satisfaction, self-reported productivity, and perceived institutional support, and to examine relationships among these variables. This design is appropriate for identifying patterns and associations without manipulating variables (Creswell & Creswell, 2018). Because the study was cross-sectional, the results were interpreted as associations rather than causal effects.

The study involved 85 Universidad de Manila employees, consisting of 37 administrative staff, 30 faculty members, 10 academic heads, and 8 administrative heads. Purposive sampling was used to include participants representing different academic and administrative roles. This approach is appropriate when respondents are selected based on characteristics relevant to the research objectives (Etikan et al., 2016). However, because purposive sampling is nonprobability-based, the findings should not be generalized statistically to all university employees.

Data were gathered using a structured researcher-made questionnaire covering work-life balance, job satisfaction, self-reported productivity, and perceived institutional support. A structured questionnaire allowed standardized responses across participants. The final manuscript should report the instrument's response scale, validation process, pilot testing, and reliability coefficients to support the interpretation of the measured constructs (Boateng et al., 2018). A survey method was used to collect data. Respondents completed the structured questionnaire, which included demographic items and measures of the four study variables.

Both descriptive and inferential statistics were employed. Frequencies and percentages were used to describe the respondents' demographic profile, while means were used to summarize work-life balance, job satisfaction, self-reported productivity, and perceived institutional support. Inferential statistics were used to examine differences across demographic groups and relationships among the study variables. Pearson's product-moment correlation was used to determine the direction and strength of associations among work-life balance, institutional support, job satisfaction, and self-reported productivity (Field, 2018).

RESULTS AND DISCUSSION

Demographic Profile of the Respondents

Table 31. Demographic Profile of the Respondents

Profile variable	Category	Frequency	Percentage
Age	25-30	6	7.06%
	31-35	5	5.88%
	36-40	4	4.71%
	41-45	11	12.94%
	46-50	18	21.18%
	51 and above	41	48.24%
Sex	Female	48	56.47%
	Male	37	43.53%
Position	Administrative staff	37	43.53%
	Academic head	10	11.76%
	Faculty	30	35.29%
	Administrative head	8	9.41%

Table 1 shows that the sample was weighted toward older employees, with 41 respondents (48.24%) aged 51 years and above, followed by those aged 46–50 years at 21.18%. In contrast, only 17.65% were aged 40 years or below. This indicates that a substantial portion of the respondents were in the later stages of their careers, a context that may be relevant when interpreting work-life balance, job satisfaction, and perceived productivity. However, age should not be treated as an explanatory factor unless supported by appropriate inferential analysis.

By sex, females comprised 56.47% of respondents, while males accounted for 43.53%, indicating relatively broad representation of both groups. Recent research suggests that employee well-being and productivity may be shaped by multiple work and personal resources, and that demographic characteristics such as sex should be interpreted alongside organizational conditions rather than in isolation (Martínez-Martínez et al., 2024).

Regarding position, administrative staff constituted the largest group at 43.53%, followed by faculty members at 35.29%, academic heads at 11.76%, and administrative heads at 9.41%. The uneven distribution reflects the different employee groups included in the study but also means that responses from administrative staff and faculty contribute more heavily to the overall results. Because work demands differ across teaching, administrative, and supervisory positions, institutional support and work-life interventions may need to be role-sensitive rather than uniform across all employees (Bakker & Demerouti, 2017).

The respondents were predominantly later-career employees, slightly more female than male, and largely composed of administrative staff and faculty. These characteristics provide context for interpreting the succeeding workplace findings but should not be assumed to determine work-life balance, satisfaction, productivity, or institutional support without verified group-comparison results.

Levels of Work-Life Balance, Job Satisfaction, Productivity, and Institutional Support

Table 32. Levels of Work-Life Balance, Job Satisfaction, Productivity, and Institutional Support

Variable	Mean	Submitted interpretation
Work-life balance	3.01	High
Job satisfaction	2.92	High
Self-reported productivity	3.31	Very High
Perceived institutional support	2.72	High

Table 2 shows generally favorable employee perceptions across all four variables. Self-reported productivity obtained the highest mean ($M = 3.31$), interpreted as Very High, followed by work-life balance ($M = 3.01$), job satisfaction ($M = 2.92$), and perceived institutional support ($M = 2.72$), all interpreted as High.

The relatively high work-life balance and job satisfaction ratings suggest that respondents generally perceive they can manage work and nonwork responsibilities while maintaining favorable attitudes toward their jobs. Higher education studies similarly report meaningful relationships between work-life balance and job satisfaction, particularly where employees have sufficient organizational resources to manage workplace demands (Boakye et al., 2023; Dorenkamp & Ruhle, 2019).

The Very High productivity rating should be interpreted as self-reported productivity, not objectively verified performance. Employees may perceive themselves as productive even when workload pressures remain present. Recent evidence likewise shows that productivity and well-being are influenced by the interaction of job demands, personal resources, and organizational support (Martínez-Martínez et al., 2024).

Perceived institutional support received the lowest mean of the four variables yet remained within the High category. This may indicate an area for institutional strengthening, particularly in communication, workload management, access to resources, supervisory responsiveness, and employee well-being. Perceived organizational support has been associated with favorable employee attitudes and performance-related outcomes (Kurtessis et al., 2017).

The findings indicate a generally positive workplace experience among respondents, with particularly strong perceptions of productivity. However, the lower mean for institutional support suggests that organizational support mechanisms may still be strengthened.

Significant Differences in Work-Life Balance, Job Satisfaction, Self-Reported Productivity, and Perceived Institutional Support Based on Demographic Characteristics

Table 33. Tests of Significant Differences in Work-Life Balance, Job Satisfaction, Self-Reported Productivity, and Perceived Institutional Support Based on Demographic Characteristics

Grouping variable	Outcome	Submitted statistic	df	p	Editorial status
Age	Work-life balance	$\chi^2 = 7.53$	5	.184	No significant difference reported
	Job satisfaction	$\chi^2 = 5.17$	5	.396	No significant difference reported
	Productivity	$\chi^2 = 2.68$	5	.749	No significant difference reported
	Institutional support	$\chi^2 = 5.16$	5	.397	No significant difference reported
Sex	Work-life balance	$\chi^2 = 0.068$	1	.794	No significant difference reported
	Job satisfaction	$\chi^2 = 0.002$	1	.966	No significant difference reported
	Productivity	$\chi^2 = 1.129$	1	.288	No significant difference reported
	Institutional support	$\chi^2 < 0.001$	1	.977	No significant difference reported
Position	Work-life balance	$\chi^2 = 9.13$	4	.058	Test/df inconsistent with four groups
	Job satisfaction	$\chi^2 = 9.06$	4	.060	Test/df inconsistent with four groups
	Productivity	$\chi^2 = 3.56$	4	.469	Test/df inconsistent with four groups
	Institutional support	$\chi^2 = 11.55$	4	.021	Potentially significant;

Table 3 shows that no statistically significant differences were reported across age groups for work-life balance ($p = .184$), job satisfaction ($p = .396$), self-reported productivity ($p = .749$), or perceived institutional support ($p = .397$). Similarly, no significant differences were reported between male and female respondents for any of the four variables, with all p -values exceeding .05. These findings indicate that the analysis did not detect meaningful age- or sex-based differences in the sample.

These results should not be interpreted to mean that age or sex has no relevance to employee well-being or productivity. Rather, the present analysis simply did not detect statistically significant group differences. Recent research suggests that well-being and productivity are shaped by multiple personal and organizational resources, making demographic characteristics only one part of a broader workplace context (Martínez-Martínez et al., 2024).

This issue is important because faculty, administrative staff, academic heads, and administrative heads may experience different workloads, schedules, responsibilities, and access to organizational resources. The Job Demands-Resources framework supports a role-sensitive interpretation, as different positions may involve distinct combinations of demands and resources (Bakker & Demerouti, 2017).

Associations among Work-Life Balance, Institutional Support, Job Satisfaction, and Productivity

Table 34. Associations among Work-Life Balance, Institutional Support, Job Satisfaction, and Self-Reported Productivity

Variable Pair	r	p-value	Interpretation	Decision
Work-life balance – Job satisfaction	.812	< .001	Strong positive association	Reject H_0 ; significant
Work-life balance – Self-reported productivity	.622	< .001	Moderate-to-strong positive association	Reject H_0 ; significant
Work-life balance – Institutional support	.750	< .001	Strong positive association	Reject H_0 ; significant
Job satisfaction – Self-reported productivity	.622	< .001	Moderate-to-strong positive association	Reject H_0 ; significant
Job satisfaction – Institutional support	.856	< .001	Strong positive association	Reject H_0 ; significant
Self-reported productivity – Institutional support	.527	< .001	Moderate positive association	Reject H_0 ; significant

The results indicate significant positive associations among all four workplace variables. The strongest relationship was between job satisfaction and perceived institutional support ($r = .856$, $p < .001$), suggesting that employees who perceived greater organizational support also tended to report higher job satisfaction. This is consistent with organizational support theory and meta-analytic evidence linking perceived organizational support with favorable job attitudes and employee well-being (Kurtessis et al., 2017).

Work-life balance was also strongly associated with job satisfaction ($r = .812$, $p < .001$) and perceived institutional support ($r = .750$, $p < .001$). These findings indicate that respondents reporting better work-life balance also tended to perceive stronger institutional support and greater satisfaction. Similar relationships have been documented among higher education employees, where favorable work-life conditions are associated with higher job satisfaction (Boakye et al., 2023; Dorenkamp & Ruhle, 2019).

Self-reported productivity was positively associated with work-life balance ($r = .622$, $p < .001$), job satisfaction ($r = .622$, $p < .001$), and institutional support ($r = .527$, $p < .001$). The findings suggest that favorable workplace conditions are associated with higher perceived productivity. However, productivity was self-reported rather than objectively measured.

The findings support the institutional importance of work-life balance, employee support, and job satisfaction. Relationships should nevertheless be interpreted as associations rather than causal effects, given that the study employed a cross-sectional correlational design.

Evidence-Informed Institutional Recommendations

The findings indicate that Universidad de Manila should strengthen employee support through a role-sensitive and organization-wide approach. Respondents reported generally favorable work-life balance, job satisfaction, self-reported productivity, and institutional support, while all four variables were positively associated. In particular, job satisfaction showed a strong positive association with perceived institutional support ($r = .856$, $p < .001$), and work-life balance was strongly associated with job satisfaction ($r = .812$, $p < .001$). These patterns suggest that organizational practices related to support, workload, and employee well-being are important areas for institutional attention.

First, the university may strengthen workload management by reviewing teaching loads, administrative assignments, deadlines, committee work, and supervisory responsibilities. The goal should not be identical workload arrangements for all employees, but equitable and role-appropriate expectations. The Job Demands-Resources framework supports this approach because different employee groups experience different combinations of job demands and available resources (Bakker & Demerouti, 2017).

Second, the institution should improve perceived organizational support through clear communication, responsive supervision, transparent access to resources, and consistent employee-support procedures. Because institutional support received the lowest mean among the four major variables, strengthening visible and accessible support mechanisms may be particularly useful. Meta-analytic evidence shows that perceived organizational support is associated with favorable job attitudes, employee well-being, and performance-related outcomes (Kurtessis et al., 2017).

Third, work-life balance initiatives should include flexible scheduling where operationally feasible, clear leave procedures, protected recovery time, wellness activities, and mechanisms for managing periods of high workload. Higher education studies consistently show that favorable work-life conditions are associated with greater job satisfaction (Boakye et al., 2023; Dorenkamp & Ruhle, 2019).

Fourth, the university should strengthen communication between management and employees through regular consultations, feedback mechanisms, clear policy dissemination, and opportunities for employees to raise concerns about workload and support. Communication should be two-way so that institutional decisions are informed by the actual experiences of faculty, administrative staff, academic heads, and administrative heads.

Fifth, employee well-being programs should be role-sensitive. Faculty may require support with teaching schedules, research demands, and student responsibilities, while administrative personnel and heads may face distinct operational and supervisory pressures. Institutional policies should therefore uphold equitable principles while allowing appropriate flexibility in response to job demands.

Finally, the university should establish periodic monitoring of employee work-life balance, satisfaction, institutional support, and well-being. Future assessments should use validated instruments, clearer sampling procedures, and, where feasible, objective indicators of productivity. Longitudinal evaluation would also help determine whether institutional interventions are followed by measurable changes in employee outcomes.

The findings support institutional action centered on fair workload allocation, responsive leadership, clear communication, accessible support systems, flexible work arrangements, and employee well-being. These recommendations should be treated as evidence-informed priorities rather than proof that any single intervention will directly cause higher satisfaction or productivity.

CONCLUSIONS

The study concludes that employees of Universidad de Manila generally reported favorable levels of work-life balance, job satisfaction, self-reported productivity, and perceived institutional support. Among these variables, self-reported productivity had the highest mean, while perceived institutional support had the lowest, although all remained within favorable ranges. This pattern suggests that employees generally view themselves as functioning effectively, while institutional support remains an area that may still be strengthened.

The demographic analysis did not detect statistically significant differences in work-life balance, job satisfaction, self-reported productivity, or institutional support when respondents were grouped by age or sex. However, position-based differences could not be interpreted conclusively because of inconsistencies in the reported statistical test and degrees of freedom. These findings indicate that demographic characteristics should not be treated as primary explanations of employee workplace perceptions without further validated analysis.

The correlation findings showed significant positive associations among work-life balance, institutional support, job satisfaction, and self-reported productivity. The strongest relationship was between job satisfaction and perceived institutional support, followed by the association between work-life balance and job satisfaction. Work-life balance was also positively associated with self-reported productivity, while institutional support was positively associated with both satisfaction and productivity. These findings indicate that employees who report more favorable work conditions also tend to report higher satisfaction and productivity.

The results support the importance of strengthening employee support, workload management, communication, and well-being initiatives at Universidad de Manila. Institutional efforts may include fair and role-sensitive workload allocation, responsive supervision, clear communication, flexible work arrangements where feasible, accessible employee-support mechanisms, and regular monitoring of workplace well-being.

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This study reflects the collective contribution of individuals and institutional units committed to research, employee well-being, supportive workplace practices, and evidence-informed institutional development. Their participation and support reinforce the value of scholarly inquiry in improving workplace conditions and strengthening Universidad de Manila as an academic institution.

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UDM iCONNECT as an Institutional Internationalization Initiative: A Qualitative Case Study of Partnerships, Inclusive Global Engagement, Capacity Development, and External Visibility

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ABSTRACT

This qualitative institutional case study examined UDM iCONNECT (International Collaboration, Openness, Networking, New Exchanges, and Capacity Transformation) as an internationalization initiative of Universidad de Manila aligned with the UDM Internationalization Roadmap 2024–2030. The study drew on institutional documents, partnership records, international engagement reports, program implementation materials, records of conferences, webinars, faculty exchanges, research collaborations, stakeholder evidence, and publicly available sources used to verify selected external recognition claims. Data were organized around four analytic domains: institutionalization and strategic governance, network and partnership expansion, inclusive international engagement and Internationalization at Home, and capacity development and external visibility. Findings indicate that UDM iCONNECT has generated substantial internationalization activity, including reported international and national partnerships, virtual and hybrid engagement, faculty networking, exchanges, research collaboration, and broader opportunities for international participation. The initiative also demonstrates externally verifiable visibility, including Rank 26 in the University Brand and Reputation category of WURI 2026. However, evidence remains stronger for activities, outputs, network expansion, and recognition than for measured outcomes such as student global competence, equitable participation, faculty research productivity, sustained institutional reputation, and long-term impact. The study therefore characterizes UDM iCONNECT as an emerging institutional internationalization framework rather than a fully validated model of institutional transformation. A results-based monitoring and evaluation framework is proposed to track partnership effectiveness, student participation, intercultural learning, faculty capacity, research collaboration, visibility, governance, and sustainability, thereby strengthening evidence-based internationalization practice in public higher education institutions. The framework emphasizes the systematic generation of evidence to support accountable, inclusive, sustainable, and strategically aligned internationalization across university functions.

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INTRODUCTION

Internationalization has become a strategic, institution-wide priority in higher education, extending beyond student mobility to encompass teaching, research, governance, partnerships, and external engagement. Comprehensive internationalization emphasizes embedding international and intercultural perspectives across institutional functions rather than concentrating them in a single office or program (Hudzik, 2011; Knight & de Wit, 2018).

A key development is Internationalization at Home (IaH), which broadens access to international learning for students and personnel who do not participate in physical mobility. IaH integrates international and intercultural dimensions into domestic learning through virtual exchange, collaborative online activities, intercultural projects, and international academic engagement (Beelen & Jones, 2015). Recent evidence emphasizes that effective IaH requires intentional curriculum integration, faculty preparation, institutional support, and clearly defined learning outcomes rather than participation in international events alone (Sierra-Huedo et al., 2024; Soulé et al., 2025).

Internationalization may also strengthen institutional visibility and external networks, but partnership counts or international activities should not automatically be treated as evidence of reputation or institutional impact. Stronger evidence includes active and reciprocal partnerships, collaborative outputs, research visibility, external recognition, stakeholder perceptions, and measurable educational outcomes. Contemporary internationalization scholarship therefore calls for approaches that prioritize quality, inclusiveness, reciprocity, and social responsibility rather than competition and branding alone (de Wit, 2020).

In the Philippines, the Commission on Higher Education has promoted internationalization through academic partnerships, exchanges, collaborative research, and institutional internationalization initiatives (Commission on Higher Education [CHED], 2023a, 2023b). This policy direction is particularly relevant to public higher education institutions seeking to expand global engagement while maintaining their educational and public-service mandates.

Within this context, Universidad de Manila developed UDM iCONNECT—International Collaboration, Openness, Networking, New Exchanges, and Capacity Transformation—as an institutional internationalization initiative aligned with the UDM Internationalization Roadmap 2024–2030. The initiative incorporates partnerships, virtual and hybrid engagement, faculty development, research collaboration, and international visibility.

The present study examines UDM iCONNECT as an institutional internationalization initiative by documenting its framework, partnership activities, inclusive global engagement, capacity-development efforts, and external recognition. It distinguishes documented activities and outputs from broader outcomes—such as improved global competence, research productivity, equitable access, and institutional reputation—that require stronger longitudinal and outcome-based evidence. This distinction allows iCONNECT to be evaluated as an emerging internationalization framework while avoiding causal claims not supported by the available documentary evidence.

STATEMENT OF THE PROBLEM

Internationalization has become an important institutional strategy in higher education, encompassing partnerships, international and intercultural learning, research collaboration, faculty development, and external engagement. At Universidad de Manila, UDM iCONNECT was developed as an institutional initiative aligned with the UDM Internationalization Roadmap 2024–2030 and intended to strengthen international collaboration, openness, networking, exchanges, and capacity transformation.

While the initiative has generated reported partnerships, virtual and hybrid engagements, faculty participation, research collaboration, and external recognition, these activities and outputs do not automatically demonstrate broader outcomes such as improved student global competence, stronger faculty research productivity, equitable access to international learning, or sustained institutional reputation. The available evidence is stronger for program implementation and visible outputs than for measured educational and institutional impact.

There is therefore a need to systematically examine the institutional framework of UDM iCONNECT, document its reported activities and outputs, assess the available evidence of capacity development and visibility, and identify areas where outcome evidence remains insufficient. Particular attention is also

needed to implementation gaps, sustainability, governance, monitoring, and the distinction between signed partnerships and active, productive collaborations.

Accordingly, the study seeks to answer the following research questions:

1. How is UDM iCONNECT structured as an institutional internationalization initiative in terms of its framework, strategic direction, and implementation components?
2. What international and national activities are reported under UDM iCONNECT in terms of:
 - 2.1 partnerships and collaborations;
 - 2.2 networking activities;
 - 2.3 academic and professional exchanges; and
 - 2.4 Internationalization at Home and virtual or hybrid engagement?
3. What evidence is available regarding the contributions of UDM iCONNECT to:
 - 3.1 faculty capacity development;
 - 3.2 student access to international and intercultural learning;
 - 3.3 institutional visibility; and
 - 3.4 external recognition?
4. Which reported accomplishments of UDM iCONNECT may be classified as:
 - 4.1 activities;
 - 4.2 outputs;
 - 4.3 outcomes; and
 - 4.4 impacts that remain insufficiently measured or verified?
5. What gaps are evident in the implementation, documentation, evaluation, governance, and sustainability of UDM iCONNECT?
6. What monitoring and evaluation framework may be proposed to strengthen UDM iCONNECT and support evidence-based internationalization practice in public higher education institutions?

METHODOLOGY

The study employed a qualitative institutional case study design, with the Universidad de Manila Internationalization Program, UDM iCONNECT, treated as the bounded case. A case study design was appropriate because it enabled an in-depth examination of the initiative within its institutional context, including its governance, partnerships, international engagement, capacity development, and external visibility (Yin, 2018). The design focused on understanding how the initiative was implemented and documented rather than establishing causal effects.

The primary sources of evidence included the UDM Internationalization Roadmap 2024–2030, institutional partnership records, international engagement reports, program implementation documents, and records of conferences, webinars, faculty exchanges, and research collaborations. Publicly available institutional and external sources were also examined to verify selected claims concerning rankings, awards, and external recognition. Documentary analysis was appropriate because institutional records provide evidence of program implementation, formal commitments, reported activities, and organizational outputs (Bowen, 2009).

Stakeholder perspectives were obtained from university administrators involved in international affairs and faculty members who participated in international activities. These key informants provided contextual information concerning program implementation, international engagement, partnership development, and perceived contributions to faculty capacity and institutional internationalization.

Stakeholder evidence was used to complement the documentary record and provide institutional perspectives on how UDM iCONNECT was experienced and implemented. For methodological completeness, the final manuscript should specify the number and roles of key informants, selection criteria, data-gathering procedure, consent process, and approach used to analyze their responses.

The documentary and stakeholder evidence was organized around four major analytic domains: (1) institutionalization and strategic governance; (2) network and partnership expansion; (3) inclusive international engagement and Internationalization at Home; and (4) capacity development and external visibility. Data were reviewed and categorized according to these domains to identify recurring patterns, documented accomplishments, and areas requiring further institutional evidence.

To strengthen the interpretation, reported evidence was further classified as activities, outputs, outcomes, or impacts. Activities referred to actions undertaken under the initiative, such as conferences, webinars, exchanges, and networking events. Outputs represented direct products of implementation, including partnerships and collaborative activities. Outcomes referred to measurable changes potentially associated with the initiative, while impacts represented broader and longer-term institutional effects. This classification prevented activity counts, partnership agreements, or external recognition from being interpreted automatically as evidence of educational or institutional transformation.

RESULTS AND DISCUSSION

Institutional Structure and Strategic Direction of UDM iCONNECT

UDM iCONNECT is structured as an institutional internationalization framework aligned with the UDM Internationalization Roadmap 2024–2030. Its organizing concept—International Collaboration, Openness, Networking, New Exchanges, and Capacity Transformation—positions internationalization as a university-wide function rather than a stand-alone activity of the international affairs office. The initiative incorporates partnerships, research collaboration, faculty development, digital engagement, exchanges, and external visibility.

This structure is consistent with comprehensive internationalization, which emphasizes integrating international and intercultural dimensions into teaching, research, governance, service, and external relations (Hudzik, 2011; Knight & de Wit, 2018). UDM iCONNECT also reflects contemporary Internationalization at Home approaches by using virtual and hybrid engagement to extend international learning beyond participants who can physically travel abroad (Sierra-Huedo et al., 2024; Soulé et al., 2025).

The initiative may be summarized through four interconnected implementation domains:

Table 35. Institutional Structure and Strategic Direction of UDM iCONNECT

Institutional Dimension	UDM iCONNECT Implementation Components	Interpretation
Strategic governance and institutionalization	Internationalization Roadmap 2024–2030; international affairs coordination; integration of internationalization objectives	Establishes strategic direction and institutional alignment
Network and partnership expansion	International and national partnerships, agreements, networking, collaborative activities	Expands in institutional networks and opportunities for cooperation
Inclusive international engagement	Virtual and hybrid exchanges, webinars, global forums, international academic activities	Extends international exposure beyond physical mobility
Capacity development and external visibility	Faculty exchanges, research collaboration, international conferences, academic networking, external recognition	Supports professional development and strengthens institutional visibility

The framework therefore moves beyond conventional mobility by combining partnership development, Internationalization at Home, research engagement, faculty capacity building, and institutional visibility. This

reflects recent internationalization literature that emphasizes inclusive and embedded approaches rather than international activity primarily based on physical mobility (Sierra-Huedo et al., 2024; Soulé et al., 2025).

International and National Activities Reported under UDM iCONNECT

The documentary evidence indicates that UDM iCONNECT operationalizes internationalization through four major areas of activity: partnerships and collaborations, networking, academic and professional exchanges, and Internationalization at Home (IaH) through virtual and hybrid engagement. These activities demonstrate that the initiative extends beyond conventional physical mobility and incorporates multiple forms of institutional and academic engagement.

Table 36 International and National Activities Reported under UDM iCONNECT

Area	Reported Activities under UDM iCONNECT	Interpretation
Partnerships and collaborations	More than 50 international partnerships and more than 20 national collaborations; memoranda and collaborative academic activities	Demonstrates expansion of UDM's institutional network, although active partnerships and reciprocal outputs should be distinguished from signed agreements
Networking activities	International conferences, global forums, webinars, institutional networking events, and engagement with partner institutions	Expands professional and institutional connections and creates opportunities for future collaboration
Academic and professional exchanges	Faculty exchanges, international conference participation, research collaboration, academic presentations, and professional engagement	Provides opportunities for faculty development, scholarly interaction, and international academic exposure
Internationalization at Home and virtual/hybrid engagement	Virtual mobility, hybrid activities, international webinars, global forums, and digitally mediated collaboration	Broadens access to international exposure for members of the university community who may not participate in physical mobility

Partnerships and Collaborations

The UDM reports more than 50 international partnerships and more than 20 national collaborations, indicating substantial network expansion. These relationships may provide platforms for collaborative research, academic exchange, co-hosted activities, and other institutional initiatives. However, partnership numbers alone do not establish effectiveness. Signed agreements should be differentiated from active partnerships based on reciprocity, completed activities, joint outputs, duration, and continuation. This distinction is consistent with comprehensive internationalization, which places greater value on sustained and integrated institutional relationships than on agreement counts alone (Hudzik, 2011).

Networking Activities

UDM iCONNECT also facilitates networking through international conferences, webinars, forums, and engagement with partner organizations. Such activities can increase institutional exposure and create opportunities for academic and professional connections. However, their value is strengthened when networking produces measurable follow-through, such as joint projects, publications, exchanges, or continuing partnerships. Thus, networking should be evaluated not only through participation counts but also through subsequent collaborative outputs.

Academic and Professional Exchanges

Reported activities include faculty exchanges, conference participation, collaborative research, academic presentations, and international professional engagement. These activities are consistent with internationalization strategies that seek to strengthen faculty capacity and scholarly networks. Nevertheless, the current evidence primarily documents participation rather than demonstrated improvements in research productivity or professional competence. Baseline and follow-up indicators are needed to determine whether participation produces sustained academic outcomes.

Internationalization at Home and Virtual or Hybrid Engagement

A notable component of UDM iCONNECT is its use of virtual mobility, hybrid engagement, international webinars, global forums, and digital collaboration. These approaches are consistent with Internationalization at Home, which seeks to provide international and intercultural learning opportunities to students and personnel who do not participate in overseas mobility (Beelen & Jones, 2015; Sierra-Huedo et al., 2024). Recent systematic evidence likewise identifies virtual exchange and digitally mediated collaboration as important mechanisms for expanding international learning opportunities (Soulé et al., 2025).

However, participation in an international webinar or virtual event should not automatically be classified as IaH. Effective IaH requires clearly defined international or intercultural learning outcomes, intentional integration into curricular or co-curricular activities, meaningful interaction, and evidence of learning (Soulé et al., 2025). The current documentary evidence therefore supports the conclusion that UDM iCONNECT has created potentially more accessible international engagement mechanisms, but equitable participation and actual intercultural learning outcomes remain to be systematically measured.

UDM iCONNECT demonstrates a diversified approach to internationalization through institutional partnerships, networking, academic exchanges, and digitally enabled international engagement. Its next stage of development should focus on documenting the quality, reciprocity, reach, and measurable outcomes of these activities rather than relying primarily on activity and partnership counts.

Evidence of UDM iCONNECT Contributions

The available evidence indicates that UDM iCONNECT contributes to internationalization primarily through documented participation, expanded access mechanisms, external visibility, and verified recognition. However, the strength of evidence differs across the four areas. Faculty development and student learning are supported mainly by evidence of activity and participation, whereas institutional visibility and external recognition have stronger documentary and externally verifiable support.

Table 37. Evidence of UDM iCONNECT Contributions

Area	Available Evidence	Evidence Level	Interpretation
Faculty capacity development	Faculty exchanges, international conferences, research collaboration, presentations, and academic networking	Emerging activity-based	Demonstrates opportunities for professional and scholarly development, but measurable capacity gains remain insufficiently documented
Student access to international and intercultural learning	Virtual mobility, hybrid activities, international webinars, global forums, and digital collaboration	Emerging access-based	Expands potential access beyond physical mobility, but participation equity and intercultural learning outcomes are not yet measured

Institutional visibility	International collaborative global conferences, exposure	partnerships, activities, engagement, and external	Moderate documentary evidence	Indicates increased external presence and network visibility
External recognition	WURI 2026 University Reputation; Sustainability Ratings, 1001–1500 band	Rank 26 in Brand and THE 2026 Impact	Strong externally verifiable evidence	Confirms external recognition, but does not establish that iCONNECT caused broader institutional ranking outcomes

Faculty Capacity Development

UDM iCONNECT provides faculty members with opportunities for international conferences, academic networking, faculty exchanges, research collaboration, and scholarly presentations. These activities are consistent with comprehensive internationalization, in which faculty development and international research engagement are part of institution-wide internationalization (Hudzik, 2011). The reported activities suggest potential contributions to professional growth, research networking, and co-authorship opportunities. However, the study does not provide baseline and follow-up measures of publications, grants, international co-authorship, research projects, or other verified indicators. Consequently, faculty capacity development should presently be described as a plausible or perceived contribution rather than a demonstrated program outcome.

Student Access to International and Intercultural Learning

UDM iCONNECT uses virtual and hybrid activities, international webinars, global forums, and digitally mediated collaboration to extend international exposure beyond physical mobility. This approach is consistent with Internationalization at Home, which seeks to make international and intercultural learning accessible to students who cannot participate in overseas programs (Beelen & Jones, 2015; Sierra-Huedo et al., 2024).

The available evidence supports the conclusion that these modalities increase the structural availability of international engagement opportunities. However, the study does not report the number or percentage of students reached, socioeconomic distribution, participation across colleges, or measured intercultural competence. Thus, claims that the program has already achieved equitable or democratized access require additional evidence.

Institutional Visibility

Institutional visibility is supported by expanding partnerships, participating in international activities, and engaging with external academic networks. The reported network of more than 50 international partnerships and more than 20 national collaborations indicates substantial expansion of UDM's external connections, provided that these figures are supported by the institutional partnership registry.

However, visibility should not be measured by partnership numbers alone. Active collaborations, reciprocal activities, joint research, publications, invited participation, and continued partner engagement provide stronger evidence of sustained institutional visibility. Internationalization scholarship similarly emphasizes quality and meaningful engagement rather than international activity primarily for branding purposes (de Wit, 2020).

External Recognition

External recognition represents the strongest independently verifiable evidence associated with UDM iCONNECT. UDM's institutional record reports that UDM iCONNECT ranked 26th in the University Brand and Reputation category of the World University Rankings for Innovation (WURI) 2026. This directly confirms external recognition of the initiative itself.

Universidad de Manila is also listed in the 1001–1500 band of the 2026 Times Higher Education Sustainability Impact Ratings, with published results across several Sustainable Development Goals. This provides additional evidence of UDM's external visibility in sustainability. However, the THE result reflects multiple university functions and should not be attributed solely to iCONNECT, unless evidence links program activities to the relevant rating indicators.

The evidence suggests that UDM iCONNECT has established meaningful opportunities for faculty engagement and broader student access while contributing to institutional visibility and obtaining verifiable external recognition. At present, however, the evidence is strongest for activities, network expansion, and recognition, and weaker for measured faculty development and student learning outcomes. Future evaluation should therefore include baseline and annual indicators for faculty outputs, student participation, global competence, research collaboration, and external visibility.

Classification of Reported Accomplishments of UDM iCONNECT

The reported accomplishments of UDM iCONNECT can be differentiated as activities, outputs, outcomes, and longer-term impacts. This distinction is important because participation counts, partnership agreements, and external recognitions demonstrate implementation and visibility but do not automatically establish educational or institutional transformation.

Table 38. Classification of Reported Accomplishments of UDM iCONNECT

Classification	Reported Accomplishments	Interpretation / Evidence Status
Activities	International conferences, webinars, global forums, networking events, faculty exchanges, virtual and hybrid engagements, collaborative research activities	Demonstrate that internationalization activities were implemented
Outputs	More than 50 international partnerships and more than 20 national collaborations; expanded virtual/hybrid engagement; documented collaborative activities	Show immediate products of implementation and network expansion, subject to verification of active partnership status
Outcomes	Increased external visibility; expanded opportunities for faculty international engagement; broader structural access to international learning	Plausible and partly documented, but many outcomes lack baseline and follow-up measures
External recognition	WURI 2026 Rank 26 in University Brand and Reputation; UDM inclusion in the THE 2026 Sustainability Impact Ratings, 1001–1500 band	Verifiable evidence of external visibility, although only the WURI recognition is directly linked to iCONNECT
Impacts insufficiently measured or verified	Improved student global competence; equitable or democratized internationalization; increased faculty research productivity; sustained institutional reputation; institutional transformation; long-term partnership effectiveness; scalability and sustainability	Require longitudinal, comparative, participation, and outcome evidence before being presented as demonstrated impacts

Activities and Outputs

UDM iCONNECT has documented a range of international conferences, webinars, networking events, exchanges, virtual activities, and research collaborations. These constitute activities because they describe what the initiative has implemented. Immediate products, such as the reported expansion to more than 50 international partnerships and more than 20 national collaborations, may be classified as outputs. However, signed agreements should be distinguished from active partnerships that generate reciprocal activities, research, publications, exchanges, or other measurable products.

Outcomes

The available evidence supports cautious claims of increased institutional visibility and expanded opportunities for international participation. Virtual and hybrid modalities have also created mechanisms through which students and faculty may participate without physical mobility. However, structural availability does not by itself demonstrate equitable participation or improved intercultural competence. Internationalization at Home requires intentional learning outcomes and evidence of intercultural learning rather than event participation alone (Beelen & Jones, 2015; Soulé et al., 2025).

Faculty participation in international conferences, research collaboration, and academic networking may likewise contribute to professional development, but the absence of baseline and follow-up measures means that increased research productivity, confidence, or scholarly performance cannot yet be treated as demonstrated outcomes.

External Recognition

The strongest verified outcome is external recognition. UDM iCONNECT received Rank 26 in the University Brand and Reputation category of WURI 2026, providing direct evidence that the initiative achieved external visibility. UDM's placement in the 1001–1500 band of the 2026 Times Higher Education Sustainability Impact Ratings provides additional evidence of institutional visibility, but it should not be attributed solely to iCONNECT because the rating reflects multiple university functions and Sustainable Development Goal indicators.

Impacts Requiring Further Evidence

Broader claims—such as improved student global competence, increased faculty research productivity, socioeconomic equity in internationalization, sustained reputation gains, and institutional transformation—remain insufficiently measured or verified. Demonstrating these impacts would require baseline data, longitudinal monitoring, participation rates, validated learning measures, faculty productivity indicators, partnership-effectiveness measures, and evidence of sustainability.

UDM iCONNECT currently has its strongest evidence in activities, immediate outputs, network expansion, and external recognition. Its longer-term educational and institutional impacts remain important propositions for future evaluation rather than established effects. This is consistent with internationalization scholarship emphasizing that institutional success should be assessed through the quality, inclusiveness, reciprocity, and educational outcomes of international engagement rather than activity volume alone (de Wit, 2020).

Gaps in the Implementation, Documentation, Evaluation, Governance, and Sustainability of UDM iCONNECT

The analysis identifies several gaps that limit the extent to which UDM iCONNECT can presently be described as a fully institutionalized and sustainable internationalization framework. The most important gaps concern evidence of implementation, documentation quality, outcome evaluation, governance arrangements, and sustainability mechanisms.

Table 39. Gaps in the Implementation, Documentation, Evaluation, Governance, and Sustainability of UDM iCONNECT

Area	Evident Gap	Institutional Implication
Implementation	Limited evidence of unit-level implementation across curriculum, research, governance, and extension	Institution-wide integration cannot yet be fully demonstrated
Documentation	Partnership counts are reported without complete classification of active, dormant, renewed, or completed agreements	Partnership quality and productivity remain unclear
Evaluation	Few baseline, follow-up, participation, or outcome measures	Student learning, faculty development, and institutional impact cannot yet be verified
Governance	Limited documentation of dedicated budget, staffing, responsibilities, data ownership, and review mechanisms	Accountability and continuity may be difficult to assess
Sustainability	Insufficient evidence on funding, succession, partnership maintenance, workload, and continuity	Long-term viability and scalability remain uncertain

First, implementation evidence remains incomplete. Although iCONNECT is described as operating across several university functions, the documentary record does not sufficiently show unit-level targets, curriculum integration, budget allocations, staffing arrangements, or implementation indicators. Comprehensive internationalization requires integration across institutional structures rather than concentration in visible international activities alone (Hudzik, 2011).

Second, documentation of partnerships and activities requires strengthening. The reported number of international and national partnerships indicates network expansion, but the records should distinguish signed agreements from active, reciprocal, dormant, completed, or renewed partnerships. Partnership effectiveness should be demonstrated through joint activities, research, publications, exchanges, curriculum initiatives, or other reciprocal outputs rather than memorandum counts alone.

Third, the initiative has an important evaluation gap. Available evidence documents activities and outputs more strongly than educational or institutional outcomes. No consistent baseline and follow-up measures are reported for student global competence, participation equity, faculty research productivity, international co-authorship, or research collaboration. Internationalization at Home likewise requires evidence of intentional intercultural learning rather than simple attendance in international events (Sierra-Huedo et al., 2024; Soulé et al., 2025).

Fourth, governance arrangements require clearer documentation. The study provides limited evidence regarding formal responsibilities, annual targets, dedicated resources, monitoring schedules, data owners, reporting mechanisms, and corrective actions. These mechanisms are necessary if internationalization is to become embedded in institutional planning and accountability rather than remain dependent on individual initiatives.

Finally, sustainability is insufficiently demonstrated. The manuscript does not adequately document long-term funding, staffing continuity, faculty workload, technological requirements, partnership maintenance, risk management, leadership succession, or mechanisms for sustaining activities after initial implementation. Claims that iCONNECT is already sustainable or scalable should therefore be approached with caution. Internationalization scholarship similarly emphasizes that quality, reciprocity, inclusion, and long-term institutional integration are more meaningful than expansion of activities alone (de Wit, 2020).

UDM iCONNECT shows promising institutional development, but its next stage should focus on systematic documentation, measurable outcome indicators, formal governance, partnership-quality monitoring, and

sustainability planning. Addressing these gaps would provide stronger evidence that the initiative is progressing from an activity-based internationalization program toward a sustained institutional framework.

Proposed Monitoring and Evaluation Framework for UDM iCONNECT

The findings support a results-based monitoring and evaluation framework that distinguishes program activities and outputs from measurable outcomes and longer-term impacts. This is necessary because the current evidence for UDM iCONNECT is strongest for partnerships, international activities, and external recognition, while student learning, faculty development, equity, research productivity, and sustainability remain insufficiently measured.

Table 40. Proposed UDM iCONNECT Monitoring and Evaluation Framework

Domain	Key Indicators	Baseline Required	Annual Evidence	Evaluation Purpose
Partnerships and Collaboration	Number of active international partnerships; percentage producing reciprocal activities or outputs; renewed agreements	Partnership registry by status	MOUs/MOAs, joint activities, outputs, renewals	Distinguish network size from partnership effectiveness
Student Internationalization	Number and percentage participating in IaH, virtual exchange, mobility, and intercultural activities	Enrollment and participation data by college/program	Participation, completion, reflection, access data	Assess reach and inclusiveness
Global Intercultural Competence	Changes in intercultural awareness, global competence, or international learning outcomes	Pre-activity assessment	Post-activity assessment, reflection, portfolio evidence	Determine educational outcomes beyond attendance
Faculty Capacity Development	International presentations, exchanges, co-authorship, visiting roles, curriculum innovations	Pre-iCONNECT faculty internationalization indicators	Verified annual faculty outputs	Assess professional and academic capacity development
Research Collaboration	Joint studies, publications, grants, citations, and international research networks	Pre-iCONNECT collaboration records	Verified research outputs by partner	Assess scholarly contribution and sustained collaboration

Institutional Visibility		External recognitions, invited partnerships, international media visibility, partner engagement, relevant ranking indicators	Pre-2024 indicators	visibility	Independent and institutional records	Assess visibility without assuming causality
Governance Sustainability	and	Budget, staffing, policies, responsible offices, monitoring compliance, partnership continuity	2024 structure	governance	Annual implementation and financial reports	Assess institutionalization, continuity, and sustainability

The framework should operate through an input–activity–output–outcome–impact pathway. Inputs include institutional policies, personnel, funding, technology, and partnerships. Activities include exchanges, webinars, collaborative research, networking, and Internationalization at Home initiatives. Outputs are the immediate products, such as active partnerships, events, participants, exchanges, and collaborative projects. Outcomes should capture measurable changes in student global competence, faculty international engagement, research collaboration, and institutional visibility. Long-term impact should concern sustained institutional capacity, equitable internationalization, reputation, and contribution to university development.

Particular attention should be given to Internationalization at Home. Participation in an international webinar or virtual activity should not be treated as an educational outcome in itself. Monitoring should establish whether activities have explicit international or intercultural learning objectives and whether participants demonstrate corresponding learning or competence development (Beelen & Jones, 2015; Soulé et al., 2025).

Partnership monitoring should similarly move beyond counting signed agreements. A partnership should be evaluated according to its activity, reciprocity, outputs, duration, renewal, and contribution to institutional goals. This approach is consistent with comprehensive internationalization, which emphasizes integration and sustained institutional engagement rather than isolated international activities (Hudzik, 2011).

For implementation, UDM may conduct annual monitoring of activities and outputs, complemented by a more comprehensive periodic evaluation of outcomes. Each indicator should have a baseline, an annual target, a responsible office, a data source, and a verification mechanism. The Office of International Affairs may coordinate the system, while colleges, research units, student affairs offices, planning units, and other concerned offices provide domain-specific evidence.

The proposed framework shifts evaluation from “How many international activities were conducted?” to “What measurable educational, scholarly, institutional, and partnership outcomes resulted from these activities?” Such an approach would strengthen UDM iCONNECT while providing a potentially adaptable model for public higher education institutions that must demonstrate internationalization outcomes within resource and public-service constraints. The current article itself recommends baseline and annual indicators across student participation, global competence, faculty capacity, research collaboration, visibility, and governance.

CONCLUSIONS

The study concludes that UDM iCONNECT represents a structured and emerging institutional internationalization initiative of Universidad de Manila. Anchored on the UDM Internationalization Roadmap 2024–2030, the initiative integrates international collaboration, networking, exchanges, Internationalization at Home, faculty development, research engagement, and external visibility. Its structure is consistent with a broader institutional approach to internationalization rather than one limited to physical mobility or isolated international activities.

The documentary evidence shows that UDM iCONNECT has generated substantial internationalization activity, including reported international and national partnerships, conferences, webinars, faculty exchanges, collaborative research, virtual engagement, and networking opportunities. These accomplishments demonstrate program implementation and network expansion. However, the number of agreements or activities alone does not establish partnership effectiveness, reciprocity, educational quality, or long-term institutional impact.

The initiative also provides mechanisms for broader access to international and intercultural engagement through virtual and hybrid modalities. These approaches are particularly relevant to Internationalization at Home because they can broaden international exposure for students and personnel who may not engage in physical mobility. Nevertheless, the study does not yet provide sufficient evidence on participation rates, socioeconomic reach, intercultural learning outcomes, or the development of global competence. Thus, expanded access should presently be interpreted as an institutional opportunity rather than as demonstrated equitable participation or learning impact.

Faculty participation in international conferences, exchanges, research collaboration, and professional networking similarly indicates opportunities for capacity development. However, stronger evidence is needed to establish improvements in research productivity, international co-authorship, grants, scholarly visibility, or professional competence. Such claims require baseline and follow-up indicators rather than activity records alone.

External recognition provides the strongest independently verifiable evidence of the initiative's visibility. UDM iCONNECT received Rank 26 in the University Brand and Reputation category of WURI 2026, while Universidad de Manila was also listed in the 1001–1500 band of the 2026 Times Higher Education Sustainability Impact Ratings. These recognitions confirm external visibility, but they should not be interpreted as proof that iCONNECT directly caused the university's broader ranking or reputation outcomes.

UDM iCONNECT is best characterized at this stage as an emerging institutional internationalization framework with documented activities, expanding networks, inclusive engagement mechanisms, and external recognition. Its longer-term claims concerning student global competence, faculty research productivity, equitable internationalization, institutional transformation, and sustained reputation remain insufficiently measured.

The study further concludes that the next stage of UDM iCONNECT should focus on stronger documentation, evaluation, governance, and sustainability mechanisms. A formal monitoring and evaluation system should distinguish among inputs, activities, outputs, outcomes, and impacts, and include measurable indicators for partnership effectiveness, student participation, global competence, faculty capacity, research collaboration, external visibility, governance, and sustainability. Such a system would enable Universidad de Manila to move from documenting internationalization activities toward demonstrating measurable educational and institutional outcomes.

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Personal and School-Related Factors Associated with Bar Examination Performance among Universidad de Manila College of Law Alumni**Bernardo A. Masangkay¹**¹*Universidad De Manila*

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ABSTRACT

This descriptive-correlational retrospective study examined personal and school-related factors associated with reported bar examination performance among 70 lawyer-alumni of the Universidad de Manila College of Law. Data were gathered through a researcher-made structured questionnaire administered during February 2026 and analyzed using descriptive statistics, one-way analysis of variance, independent-samples t-tests, Pearson correlation, and multiple regression. Results showed that respondents were predominantly aged 25–30 years, female, and employed during bar review. Age and gender were not associated with significant performance differences, whereas employment status was, with full-time reviewees reporting higher mean scores. Among personal factors, self-efficacy, study strategies, time management, motivation, study habits, and psychological well-being demonstrated strong positive associations with the reported performance measure, while stress showed a moderate negative association. Financial capability and goal orientation also showed moderate positive relationships. Among school-related factors, bar review programs and faculty competence exhibited the strongest positive associations, while academic resources, curriculum relevance, and institutional and peer support showed moderate positive relationships. The reported regression model indicated that bar review programs, self-efficacy, time management, and faculty competence were significant predictors, collectively explaining 68% of the variance in the specified outcome. The findings support an integrated approach to bar preparation that combines structured review, self-regulated learning, faculty mentoring, time-management support, psychological well-being, and peer support. However, because the study relied on retrospective self-reports from lawyer alumni, the findings should be interpreted as associations rather than causal determinants, and the bar-performance measure requires a precise operational definition and verification before definitive institutional application.

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INTRODUCTION

Bar examination performance is an important outcome for law graduates and law schools because it reflects the interaction of academic preparation, study behaviors, psychological readiness, review conditions, and institutional support. Evidence suggests that bar outcomes are multidimensional rather than attributable to a single factor. Law school academic performance has been identified as an important predictor of first-time bar passage, while student engagement and academic growth may also contribute to later success (Taylor et al., 2021).

Personal learning processes are particularly relevant during bar preparation. Self-efficacy influences persistence, effort, and responses to difficulty (Bandura, 1997), while self-regulated learning involves goal setting, strategic planning, time management, self-monitoring, and adjustment of study strategies

(Zimmerman, 2002). These concepts provide a useful basis for examining study habits, motivation, confidence, stress, psychological well-being, financial capability, and time management among bar examinees.

Institutional support also plays an important role. Johns (2016) found that structured bar-preparation programs can benefit students, particularly those with prior academic difficulty. However, curricular exposure alone should not be assumed to guarantee bar success. Kuehn and Moss (2019) found limited relationships between the volume of coursework and bar passage, suggesting that targeted review, active learning, feedback, and individualized academic support may be more useful than uniform curricular approaches.

Psychological and social conditions also warrant attention. Bar preparation may involve stress, isolation, and sustained performance pressure. Recent scholarship emphasizes the potential value of mentoring, peer community, wellness support, and institutional responsiveness during high-stakes preparation (Armstrong, 2025; Shea, 2025). These forms of support may help sustain motivation and well-being, although they should not be interpreted as guaranteed determinants of higher bar scores.

In the Philippine context, evidence remains limited. Alerta (2014) identified study habits, perseverance, financial support, employment, review-center participation, teaching style, and law-school preparation among factors perceived by Philippine bar takers as relevant to success. This supports the need for institution-specific examination of both personal and school-related conditions.

Accordingly, the present study examines personal and school-related factors associated with the outcome labeled bar examination performance among Universidad de Manila College of Law alumni. Because the study is retrospective and correlational, findings are interpreted as associations rather than causal effects. In addition, the meaning and source of the bar-performance measure must be clearly defined before statistical results can be interpreted as evidence concerning bar scores or passage.

STATEMENT OF THE PROBLEM

Bar examination preparation involves a combination of personal, academic, psychological, and institutional factors. Among law graduates, study habits and strategies, motivation, self-efficacy, stress, psychological well-being, financial capability, and time management may shape how effectively examinees prepare for the Bar Examination. At the same time, school-related conditions such as faculty competence, academic resources, bar review programs, curriculum relevance, and institutional or peer support may provide important forms of academic and psychosocial assistance.

For the Universidad de Manila College of Law, there is a need to examine these factors among lawyer-alumni and determine how they are associated with the outcome identified in the study as bar examination performance. It is also necessary to determine whether reported performance differs across selected demographic characteristics, particularly age, gender, and employment status during the review period.

Because the study uses a retrospective descriptive-correlational design, the analysis is limited to identifying differences and statistical associations rather than establishing causal effects. Moreover, the outcome labeled "bar examination performance" must be clearly defined and verified before the inferential findings can be interpreted conclusively.

Accordingly, the study seeks to answer the following research questions:

1. What is the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 gender;
 - 1.3 employment status during bar review; and
2. What are the personal factors related to bar preparation:
 - 2.1 study habits and strategies;
 - 2.2 motivation;
 - 2.3 self-efficacy;

- 2.4 goal orientation, if measured;
- 2.5 stress;
- 2.6 psychological well-being;
- 2.7 financial capability; and
- 2.8 time management?
3. What are the school-related factors to bar preparation:
 - 3.1 faculty competence;
 - 3.2 academic resources;
 - 3.3 bar review programs;
 - 3.4 curriculum relevance; and
 - 3.5 institutional and peer support?
4. Are there statistically significant differences in the reported bar examination performance when respondents are grouped according to selected demographic characteristics?
5. What statistical associations exist between the reported bar examination performance and the identified personal factors?
6. What statistical associations exist between the reported bar examination performance and the identified school-related factors?
7. What evidence-informed recommendations may be derived from the findings to strengthen bar preparation and institutional support for future Universidad de Manila College of Law examinees?

METHODOLOGY

The study employed a descriptive-correlational, retrospective survey design to examine personal and school-related factors associated with the reported bar examination performance of Universidad de Manila College of Law alumni. This design was appropriate because it allowed the researchers to describe respondents' prior bar-preparation experiences and examine statistical relationships among measured variables without manipulating conditions. Correlational designs identify patterns of association but do not establish causal relationships (Creswell & Creswell, 2018). Accordingly, the findings were interpreted as associations rather than evidence that particular personal or institutional factors caused a specific bar examination outcome.

The study involved 70 lawyer-alumni of the Universidad de Manila College of Law who had experience taking the Philippine Bar Examination. Their experiences provided retrospective information on bar preparation, personal factors, school-related support, and the reported bar performance measure. Because the respondents were lawyer-alumni, the findings primarily represent individuals who ultimately entered the legal profession and should not be generalized to unsuccessful examinees.

Data were collected using a researcher-made structured questionnaire covering respondent characteristics, personal factors, school-related factors, and bar examination performance. Personal factors included study habits and strategies, motivation, self-efficacy, stress, psychological well-being, financial capability, and time management. School-related factors included faculty competence, academic resources, bar review programs, curriculum relevance, and institutional or peer support.

Researcher-developed instruments should undergo systematic content validation and reliability testing to ensure that items adequately represent the intended constructs (Boateng et al., 2018).

Data were gathered through a survey conducted throughout February 2026. Eligible lawyer-alumni were invited to complete the structured questionnaire concerning their previous bar examination preparation and related experiences. The final manuscript should document informed consent, confidentiality measures, the mode of survey administration, and procedures for handling potentially sensitive bar examination information. Because the study relied on retrospective responses, recall and social desirability biases should also be acknowledged.

Both descriptive and inferential statistics were employed. Frequencies, percentages, means, and other appropriate descriptive measures were used to summarize respondent characteristics and the reported personal and school-related factors.

For inferential analysis, one-way analysis of variance (ANOVA) was used to compare across age groups, while independent-samples t-tests were used to compare gender and employment status. Pearson's product-moment correlation was employed to examine associations between personal and school-related factors and the reported bar-performance measure. Multiple regression analysis was used to examine the combined statistical contribution of selected factors to the outcome. These procedures are appropriate for group comparisons, linear associations, and multivariable analysis when their assumptions are adequately satisfied (Field, 2018).

RESULTS AND DISCUSSION

Demographic Profile of the Respondents

Table 41. Demographic Profile of the Respondents

Profile Variable	Category	Frequency	Percentage
Age	25–30 years old	38	54.3%
	31–35 years old	21	30.0%
	36 years old and above	11	15.7%
Gender	Male	30	42.9%
	Female	40	57.1%
Employment Status During Bar Review	Employed	44	62.9%
	Full-time reviewee	26	37.1%

Table 1 presents the demographic profile of the 70 lawyer-alumni respondents in terms of age, gender, and employment status during bar review.

The respondents were predominantly younger lawyer-alumni, with 54.3% aged 25–30 and 30.0% aged 31–35. In total, 84.3% were 35 years old or younger. This profile suggests that most respondents were relatively early in their professional careers. However, age should be treated only as a descriptive characteristic unless inferential analysis demonstrates meaningful differences in bar examination performance. Bar outcomes are generally shaped by multiple academic, personal, and contextual factors rather than age alone (Taylor et al., 2021).

By gender, 57.1% of respondents were female, and 42.9% were male, indicating a modest female majority. The distribution provides representation from both groups but does not, by itself, indicate gender-based differences in bar preparation or performance.

Regarding employment status, 62.9% of respondents were employed while preparing for the Bar Examination, while 37.1% were full-time reviewees. This is an important contextual characteristic because employment may compete with bar preparation for time, energy, and attention. Philippine evidence has identified work, financial support, study habits, and review conditions as relevant considerations in bar preparation (Alerta, 2014). Recent literature also emphasizes the substantial workload and psychological demands of legal education and bar review, underscoring the need for flexible and responsive support systems (Armstrong, 2025; Shea, 2025).

The respondents were predominantly young, slightly more female, and mostly employed during bar review. These demographic characteristics provide context for the succeeding analysis but should not be interpreted as direct causes of bar examination performance.

Personal Factors Related to Bar Preparation

The study examined study habits and strategies, motivation, self-efficacy, goal orientation, stress, psychological well-being, financial capability, and time management as personal factors related to bar preparation. However, the submitted results do not report means, standard deviations, or scale-based descriptive categories such as low, moderate, or high. Consequently, the actual “levels” of these personal factors cannot yet be determined from the available data. The results presently support interpreting their associations with the reported bar examination performance measure, rather than with their descriptive levels.

Table 42. Reported Personal Factors and Their Association with Bar Examination Performance

Personal Factor	r-value	p-value	Interpretation
Study habits	.61	< .001	Strong positive association
Study strategies	.67	< .001	Strong positive association
Motivation	.64	< .001	Strong positive association
Self-efficacy	.69	< .001	Strong positive association
Goal orientation	.55	< .001	Moderate positive association
Stress	-.52	< .001	Moderate negative association
Psychological well-being	.60	< .001	Strong positive association
Financial capability	.49	< .001	Moderate positive association
Time management	.65	< .001	Strong positive association

Among the personal factors, self-efficacy showed the strongest positive association with the reported bar-performance measure ($r = .69$, $p < .001$), followed by study strategies ($r = .67$), time management ($r = .65$), motivation ($r = .64$), study habits ($r = .61$), and psychological well-being ($r = .60$). These results indicate that respondents who retrospectively reported stronger confidence, more organized learning behaviors, better time use, and more favorable psychological functioning also tended to report better bar examination performance. The pattern is consistent with Bandura’s (1997) self-efficacy framework and Zimmerman’s (2002) self-regulated learning perspective, which emphasize confidence, strategic learning, monitoring, and persistence in demanding academic tasks.

Study habits and strategies were strongly and positively associated with performance ($r = .61$ and $r = .67$, respectively). The manuscript specifically identifies structured study schedules, codal-based review, and practice answering as preparation behaviors reported by respondents. These findings are consistent with Johns (2016), who found that active participation and structured bar-preparation interventions can benefit examinees, particularly those requiring additional academic support. The findings should nevertheless be described as associations rather than evidence that these practices directly caused higher bar scores.

Motivation and self-efficacy were also strongly associated with the reported outcome ($r = .64$ and $r = .69$, respectively), while goal orientation showed a moderate positive association ($r = .55$). Self-efficacy is particularly relevant because beliefs about one’s capability can influence persistence, effort, and responses to academic difficulty (Bandura, 1997). These results suggest that psychological readiness may be an important component of bar preparation, although retrospective self-report does not establish a causal effect.

For psychological factors, stress was moderately and negatively associated with performance ($r = -.52$, $p < .001$), whereas psychological well-being showed a strong positive association ($r = .60$, $p < .001$). This pattern supports the importance of considering well-being during intensive bar preparation. Armstrong (2025) emphasizes the psychological demands and potential isolation associated with bar preparation, while Shea (2025) highlights the need for responsive well-being and support mechanisms in legal education. The present findings, however, indicate association and should not be interpreted to mean that stress independently determines bar outcomes.

Finally, financial capability showed a moderate positive association ($r = .49$), while time management demonstrated a strong positive association ($r = .65$), both statistically significant at $p < .001$. Financial resources may affect access to review materials, review programs, and available study time, while effective time management is conceptually consistent with self-regulated learning. Philippine evidence likewise identifies financial support, employment conditions, and study habits among factors perceived as relevant during bar preparation (Alerta, 2014). However, the present analysis does not establish the mechanisms through which financial capability or time management may affect performance.

The results suggest that bar preparation among UDM College of Law alumni is associated with multiple personal dimensions, particularly self-efficacy, study strategies, time management, motivation, study habits, and psychological well-being. Stress showed an inverse relationship, while financial capability and goal orientation demonstrated moderate positive associations. These findings reinforce the multidimensional nature of bar preparation and indicate the potential value of combining academic self-regulation, psychological readiness, and practical support in bar-preparation initiatives.

School-Related Factors Related to Bar Preparation

The study examined faculty competence, academic resources, bar review programs, curriculum relevance, and institutional and peer support as school-related factors associated with bar examination performance. However, the submitted results do not provide complete descriptive statistics for these constructs. A mean score is reported only for faculty competence; the remaining factors are presented through correlation coefficients. Thus, their exact reported levels cannot yet be classified as low, moderate, or high without the corresponding means, standard deviations, scale anchors, and interpretive ranges.

Table 43. School-Related Factors and Their Association with Bar Examination Performance

School-Related Factor	Reported Mean	r-value	p-value	Interpretation
Faculty competence	4.32/5	.66	< .001	Strong positive association
Academic resources	Not reported	.53	< .001	Moderate positive association
Bar review programs	Not reported	.71	< .001	Strong positive association
Curriculum relevance	Not reported	.59	< .001	Moderate positive association
Institutional and peer support	Not reported	.57	< .001	Moderate positive association

Faculty competence received a reported mean of 4.32 out of 5, indicating generally favorable perceptions among respondents, although the precise verbal interpretation depends on the questionnaire's stated scale ranges. It also demonstrated a strong positive association with the reported bar-performance measure ($r = .66$, $p < .001$). This suggests that alumni who rated faculty competence more favorably also tended to report better bar performance. Effective faculty guidance may strengthen conceptual understanding, feedback, and preparation, but the correlational design does not establish that faculty competence directly caused higher examination outcomes.

Academic resources showed a moderate positive association with reported bar performance ($r = .53$, $p < .001$). Access to updated legal materials, library resources, and digital learning tools may facilitate independent review and information retrieval. However, availability of resources alone does not guarantee effective learning; their educational value depends on how appropriately and consistently they are used.

Among all school-related factors, bar review programs showed the strongest association with the reported outcome ($r = .71$, $p < .001$). This finding is consistent with Johns (2016), who found that structured bar-passage interventions and active participation may benefit students, particularly those with academic difficulties. The result supports continued attention to mock examinations, guided review, coaching, formative feedback, and practice answering, while avoiding the conclusion that participation alone guarantees bar success.

Curriculum relevance demonstrated a moderate positive association with bar performance ($r = .59$, $p < .001$). Although respondents who perceived their curriculum as more relevant tended to report better performance, this finding should be interpreted with caution. Kuehn and Moss (2019) found that the amount of experiential coursework was not significantly associated with bar passage and that bar-related coursework showed only limited benefits for particular groups. Thus, curriculum alignment may contribute to preparation, but curricular exposure alone should not be considered sufficient to explain examination performance.

Institutional and peer support also showed a moderate positive association with the reported bar-performance measure ($r = .57$, $p < .001$). Support from faculty, administrators, peers, mentors, and review communities may help sustain motivation and psychological well-being during demanding periods of preparation. Armstrong (2025) emphasizes the value of community and social connection during bar preparation, while Shea (2025) highlights the importance of responsive institutional and well-being support in legal education.

The findings indicate that all five school-related factors were positively associated with reported bar examination performance, with bar review programs and faculty competence showing the strongest relationships. The pattern suggests that structured review, competent instruction, adequate resources, relevant curricular preparation, and supportive academic environments may collectively provide conditions conducive to bar preparation. Nevertheless, these findings represent statistical associations and should not be interpreted as evidence of direct causal effects.

Differences in Reported Bar Examination Performance According to Demographic Characteristics

The study examined whether reported bar examination performance differed according to age, gender, and employment status during bar review. One-way ANOVA was used for age, while independent-samples t -tests were used for gender and employment status.

Table 44. Differences in Reported Bar Examination Performance by Demographic Characteristics

Demographic Variable	Statistical Test	Computed Value	p-value	Decision	Interpretation
Age	One-way ANOVA	$F = 1.21$	.304	Fail to reject H_0	Not significant
Gender	Independent-samples t -test	$t = 0.88$	.382	Fail to reject H_0	Not significant
Employment status during bar review	Independent-samples t -test	$t = 2.41$	.019	Reject H_0	Significant

The results indicate that age was not significantly associated with differences in reported bar examination performance, $F = 1.21$, $p = .304$. Thus, no statistically significant performance differences were detected among respondents aged 25–30, 31–35, and 36 years and above. This suggests that age, within the range represented in the sample, did not meaningfully differentiate the reported bar-performance measure.

Similarly, gender did not produce a statistically significant difference, $t = 0.88$, $p = .382$. Male and female respondents therefore did not differ significantly in the reported performance measure. This finding reinforces the view that bar outcomes are better understood through academic preparation, self-regulation, and institutional conditions rather than demographic characteristics alone (Taylor et al., 2021).

In contrast, employment status during bar review showed a statistically significant difference ($t = 2.41$, $p = .019$). The submitted manuscript states that full-time reviewees obtained higher mean scores than respondents who were employed at the time of the review. This finding suggests that employment status may be associated with variation in bar examination performance, possibly because employed examinees face competing demands on time and attention. Philippine evidence has likewise identified employment,

financial support, and review conditions among factors perceived as relevant to bar preparation (Alerta, 2014).

However, the finding should not be interpreted to mean that employment causes lower performance. Employment may also be related to financial circumstances, family responsibilities, study time, prior academic performance, or other unmeasured factors. Moreover, the manuscript does not report the group means, standard deviations, confidence interval for the mean difference, or effect size; these should be included to determine the magnitude and practical significance of the employment-status difference.

Among the demographic characteristics examined, only employment status during bar review was significantly associated with differences in reported bar examination performance, while age and gender were not.

Association Between Personal Factors and Reported Bar Examination Performance

Pearson product-moment correlation was used to determine the statistical associations between the identified personal factors and the reported bar examination performance measure. All personal factors showed statistically significant associations with the outcome at $p < .001$.

Table 45. Association Between Personal Factors and Reported Bar Examination Performance

Personal Factor	r-value	p-value	Decision	Interpretation
Study habits	.61	< .001	Reject H_0	Strong positive association
Study strategies	.67	< .001	Reject H_0	Strong positive association
Motivation	.64	< .001	Reject H_0	Strong positive association
Self-efficacy	.69	< .001	Reject H_0	Strong positive association
Goal orientation	.55	< .001	Reject H_0	Moderate positive association
Stress	-.52	< .001	Reject H_0	Moderate negative association
Psychological well-being	.60	< .001	Reject H_0	Strong positive association
Financial capability	.49	< .001	Reject H_0	Moderate positive association
Time management	.65	< .001	Reject H_0	Strong positive association

Among the personal factors, self-efficacy exhibited the strongest positive association with the reported bar-performance measure ($r = .69$, $p < .001$), followed by study strategies ($r = .67$), time management ($r = .65$), motivation ($r = .64$), study habits ($r = .61$), and psychological well-being ($r = .60$). These findings indicate that respondents who reported greater confidence in their capabilities, more systematic study practices, better management of time, stronger motivation, and more favorable psychological well-being also tended to report better bar examination performance.

The strong association of self-efficacy is theoretically consistent with Bandura (1997), who explained that beliefs about personal capability can influence effort, persistence, and responses to difficult tasks. Similarly, the associations involving study habits, study strategies, and time management are consistent with self-regulated learning theory, which emphasizes planning, strategic learning, monitoring, and adjustment of study behavior (Zimmerman, 2002). Johns (2016) likewise found that structured and active participation in bar-preparation interventions may be beneficial, particularly for students experiencing academic difficulty.

Goal orientation showed a moderate positive association with reported performance ($r = .55$, $p < .001$). This suggests that respondents with clearer achievement goals tended to report better bar outcomes. However, goal orientation appears separately in the narrative results and was not included in the original personal-factor correlation table; the authors should confirm that it was measured as a distinct construct and provide its corresponding instrument information.

In contrast, stress was negatively associated with reported bar performance ($r = -.52$, $p < .001$), indicating that higher reported stress was associated with lower performance. Psychological well-being showed the

opposite pattern, with a strong positive association ($r = .60, p < .001$). These findings are consistent with the literature emphasizing the psychological demands of bar preparation and the potential importance of supportive, well-being-oriented environments (Armstrong, 2025; Shea, 2025).

Financial capability also demonstrated a moderate positive association ($r = .49, p < .001$), while time management showed a strong positive association ($r = .65, p < .001$). Financial resources may be related to access to review materials, formal review programs, and the ability to allocate time for study, although these mechanisms were not directly tested in the study. Philippine evidence has similarly identified financial support, employment, study habits, and review conditions as relevant considerations in bar preparation (Alerta, 2014).

The null hypotheses of no association were rejected for all examined personal factors. The findings suggest that self-efficacy, study strategies, time management, motivation, study habits, and psychological well-being were strongly and positively associated with reported bar examination performance, while stress showed a moderate inverse association. Nevertheless, these bivariate correlations should not be described as independent predictors or causal determinants because they do not account for the simultaneous influence of other variables.

Association Between School-Related Factors and Reported Bar Examination Performance

Pearson product-moment correlation was used to examine the associations between the identified school-related factors and the reported bar examination performance measure. All five school-related factors showed statistically significant positive associations with the outcome at $p < .001$.

Table 46. Association Between School-Related Factors and Reported Bar Examination Performance

School-Related Factor	r-value	p-value	Decision	Interpretation
Faculty competence	.66	< .001	Reject H_0	Strong positive association
Academic resources	.53	< .001	Reject H_0	Moderate positive association
Bar review programs	.71	< .001	Reject H_0	Strong positive association
Curriculum relevance	.59	< .001	Reject H_0	Moderate positive association
Institutional and peer support	.57	< .001	Reject H_0	Moderate positive association

Among the school-related factors, bar review programs demonstrated the strongest positive association with reported bar examination performance ($r = .71, p < .001$). This suggests that respondents who perceived bar review programs more favorably also tended to report better bar examination outcomes. The result is consistent with Johns (2016), who found that structured bar-passage interventions and active participation can provide meaningful support, particularly for academically vulnerable students. The finding supports the value of mock examinations, coaching, guided review sessions, and other structured preparation activities, although the correlation does not establish that these programs directly caused higher performance.

Faculty competence also showed a strong positive association with reported performance ($r = .66, p < .001$). This indicates that more favorable perceptions of faculty competence were associated with higher reported bar-performance outcomes. Competent instruction may support conceptual understanding, legal reasoning, feedback, and preparation for complex examination tasks. However, the present study does not isolate faculty competence from other academic and personal influences, so the result should be interpreted as an association rather than a causal effect.

Curriculum relevance showed a moderate positive association ($r = .59, p < .001$). Respondents who perceived their law curriculum as more aligned with bar-related content tended to report better performance. Nevertheless, curriculum alignment should not be treated as sufficient by itself. Kuehn and Moss (2019) found that the volume of experiential coursework was not associated with bar passage and that bar-subject

coursework showed only modest benefits among certain higher-risk students. Thus, curricular relevance may contribute to preparation when combined with active review, effective instruction, and individual study strategies.

Institutional and peer support was also moderately and positively associated with reported performance ($r = .57, p < .001$). Support from faculty, administrators, peers, and mentors may help sustain motivation, engagement, and psychological well-being during intensive bar preparation. Armstrong (2025) emphasizes the importance of community and reduced isolation during bar review, while Shea (2025) highlights the value of responsive institutional and well-being support in legal education.

Finally, academic resources showed a moderate positive association with the reported outcome ($r = .53, p < .001$). Access to up-to-date legal materials, library holdings, digital resources, and other academic facilities may support independent review and information access. However, resource availability alone does not ensure stronger performance, since effectiveness also depends on how those resources are used within broader study and instructional practices.

The null hypotheses of no association were rejected for all school-related factors. The findings indicate that bar review programs and faculty competence had the strongest positive associations with reported bar examination performance, while curriculum relevance, institutional and peer support, and academic resources demonstrated moderate positive relationships. These results support a multidimensional view of institutional preparation in which structured review, faculty quality, relevant curricular experiences, adequate resources, and supportive academic environments may operate together. However, because the analysis is correlational, these factors should not be described as independent causes of bar examination success.

Evidence-Informed Recommendations for Bar Preparation and Institutional Support

The findings indicate that bar preparation among UDM College of Law alumni is associated with both personal and school-related factors. In particular, self-efficacy, study strategies, time management, faculty competence, and bar review programs showed among the strongest positive associations with the reported bar performance measure, whereas stress showed a negative association. These findings support the following evidence-informed recommendations.

Table 47. Proposed Recommendations for Future UDM College of Law Examinees

Area	Evidence-Informed Recommendation	Basis from Findings
Structured bar review	Strengthen mock bar examinations, coaching sessions, guided review, and formative feedback	Bar review programs showed the strongest school-related association with performance ($r = .71$)
Self-efficacy development	Incorporate regular practice answering, progress monitoring, feedback, and mastery-based activities	Self-efficacy showed the strongest personal-factor association ($r = .69$)
Study strategies	Provide workshops on structured study schedules, codal-based review, retrieval practice, and answer writing	Study strategies ($r = .67$) and study habits ($r = .61$) were strongly associated with performance
Time management	Develop individualized review schedules and planning interventions, particularly for employed examinees	Time management showed a strong association ($r = .65$); employment status also showed a significant difference
Faculty support	Strengthen faculty coaching, consultation, feedback, and specialization in bar-related subjects	Faculty competence showed a strong positive association ($r = .66$)

Stress and well-being	Provide counseling, wellness activities, stress-management sessions, mentoring, and peer support	Stress was negatively associated ($r = -.52$), while psychological well-being was positively associated ($r = .60$)
Financial and scheduling support	Consider scholarships, review assistance, flexible schedules, or other feasible support for examinees with employment and financial constraints	Financial capability was positively associated ($r = .49$); most respondents were employed during review
Academic resources	Maintain updated legal references, digital databases, review materials, and accessible learning resources	Academic resources showed a positive association ($r = .53$)
Curriculum review	Periodically review curriculum alignment with bar competencies while preserving broader legal education outcomes	Curriculum relevance showed a moderate positive association ($r = .59$)
Monitoring and evaluation	Track review participation, mock-bar performance, student support use, and subsequent verified bar outcomes	Needed to determine whether interventions produce measurable outcomes

The bar review program should remain a major institutional priority because it demonstrated the strongest association among school-related factors. Structured interventions may include diagnostic examinations, mock bars, targeted coaching, practice answering, and systematic feedback. Johns (2016) similarly found that active participation in structured bar-passage interventions can be beneficial, particularly for students who experienced academic difficulty. However, participation should be evaluated using objective performance indicators rather than assuming that attendance itself improves bar outcomes.

UDM should also strengthen self-regulated learning and the development of self-efficacy. Respondents who reported greater self-efficacy, more effective study strategies, and better time-management practices also tended to report better performance. Regular practice, mastery experiences, goal setting, progress monitoring, and constructive feedback may help examinees develop greater confidence and control over their preparation. These strategies are consistent with Bandura's (1997) self-efficacy theory and Zimmerman's (2002) framework of self-regulated learning.

Particular support should be provided to employed bar examinees. Employment status was the only demographic variable showing a statistically significant difference in performance in the submitted analysis, with full-time reviewees reporting higher scores. UDM may therefore consider flexible review schedules, asynchronous materials, individualized study planning, and targeted financial assistance where feasible. These interventions should be framed as support measures rather than remedies for a presumed causal effect of employment.

The findings also justify strengthening psychological well-being and peer support. Stress was negatively associated with reported bar performance, whereas psychological well-being and institutional or peer support were positively associated. Counseling services, peer mentoring, wellness activities, faculty-guided review groups, and community-building initiatives may help reduce isolation and sustain motivation during intensive preparation. Armstrong (2025) and Shea (2025) similarly emphasize the importance of community, well-being, and responsive institutional support in legal education and bar preparation.

Finally, UDM should establish a systematic monitoring and evaluation mechanism for its bar-preparation interventions. Future evaluation should link participation in review programs, diagnostic and mock-bar results, faculty support, psychosocial indicators, and verified bar examination outcomes. This would allow the College of Law to determine which interventions are most useful for different groups of examinees and move from retrospective perceptions toward evidence-based institutional decision-making.

The recommended approach is a targeted and integrated bar-preparation system combining academic review, self-regulated learning, faculty mentoring, psychological support, accessible resources, and differentiated assistance. Because the present study is retrospective and correlational, these

recommendations should be treated as evidence-informed strategies for institutional improvement rather than as interventions proven to improve bar examination performance.

CONCLUSIONS

The study concludes that bar examination performance among Universidad de Manila College of Law alumni is associated with a combination of personal and school-related factors rather than with any single characteristic. The respondent profile showed that most participants were relatively young, slightly more were female, and the majority were employed during bar review. Among the demographic variables examined, only employment status showed a statistically significant difference in reported bar examination performance, while age and gender did not. This suggests that the conditions under which examinees prepare, particularly whether they are simultaneously employed, may be more relevant than basic demographic characteristics alone.

Personal factors demonstrated consistent relationships with the reported performance measure. Self-efficacy showed the strongest positive association, followed by study strategies, time management, motivation, study habits, and psychological well-being. Goal orientation and financial capability also showed positive relationships, while stress was negatively associated with performance. These findings indicate that bar preparation is closely linked to confidence, disciplined study behavior, effective time allocation, motivation, and psychological readiness. However, these relationships should be interpreted as statistical associations and not as proof that any of these factors independently cause better bar examination outcomes.

School-related factors were likewise significantly associated with reported bar examination performance. Bar review programs demonstrated the strongest relationship, followed by faculty competence. Academic resources, curriculum relevance, and institutional and peer support also showed positive associations. These findings suggest that structured review activities, competent instruction, accessible academic resources, relevant curricular preparation, and supportive institutional environments may collectively provide favorable conditions for bar preparation.

Taken together, the results support a multidimensional approach to bar preparation. Personal readiness and institutional support appear to operate in tandem, with particularly strong evidence for self-efficacy, time management, bar review programs, and faculty competence. The findings therefore support strengthening structured review, formative feedback, faculty mentoring, self-regulated learning, time-management support, psychological well-being services, peer support, and assistance for examinees managing employment or financial constraints.

The study provides useful institutional evidence for improving bar preparation at the Universidad de Manila College of Law, but future research should employ clearly defined and preferably verified bar outcomes, broader samples that include both passers and nonpassers, and longitudinal designs capable of examining how personal preparation and institutional interventions relate to subsequent bar examination performance over time.

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Ultimately, this study reflects the collective contribution of individuals and institutional units committed to research, legal education, student support, and evidence-informed academic practice. Their contributions underscore the value of scholarly inquiry in strengthening bar preparation initiatives, improving institutional support mechanisms, and advancing the continuing development of legal education at Universidad de Manila.

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Self-Perceived Research Strengths, Barriers, and Capability-Building Expectations among RESEARCH CONNECT 2025 Participants: A Qualitative Diagnostic Assessment

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ABSTRACT

This qualitative descriptive diagnostic assessment examined the self-perceived research strengths, barriers, and capability-building expectations of 36 faculty and administrative personnel participating in Universidad de Manila's RESEARCH CONNECT 2025. Data were generated through three open-ended prompts that asked participants to describe their strengths as potential researchers, the challenges or limitations they faced in conducting research, and their expectations of the program. Responses were analyzed inductively through thematic analysis. Findings showed that participants perceived their strengths in curiosity and willingness to learn, technical and analytical familiarity, perseverance and commitment, collaborative readiness, and digital literacy. Reported barriers centered on time and workload constraints, low confidence and research anxiety, methodological and analytical difficulties, resource and financial limitations, and personal or health-related conditions. Participants expected practical research training, mentoring and coaching, confidence building, collaborative learning, and support in completing, presenting, and publishing scholarly outputs. The diagnostic findings indicate that RESEARCH CONNECT should adopt differentiated learning pathways, applied methods and statistics support, structured mentoring, peer collaboration, realistic milestone schedules, and output-oriented progression from research idea development to dissemination. Because the assessment relied on brief self-reported responses, the findings should not be interpreted as evidence of actual research competence or program effectiveness. The study therefore recommends subsequent evaluation using measurable indicators of research self-efficacy, methodological and analytical competence, milestone completion, completed studies, research presentations, manuscript submissions, and publication outcomes to determine whether RESEARCH CONNECT produces sustained gains in research capability and scholarly productivity. These indicators can support evidence-informed refinement of institutional research development initiatives and strengthen accountability for long-term capacity-building outcomes.

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INTRODUCTION

Developing a sustainable research culture in higher education requires more than isolated training in research methods. Faculty research engagement is shaped by the interaction of individual motivation and confidence with institutional conditions such as workload, mentoring, incentives, leadership, access to resources, and opportunities to complete and disseminate scholarly outputs. Philippine studies have similarly shown that research productivity is influenced by both personal and institutional factors, including research self-efficacy, incentives, research support, and the broader research environment (Quimbo & Sulabo, 2014; Quitoras & Abuso, 2021). More recent local evidence identifies lack of time, confidence,

research skills, mentoring, collaboration, and institutional support as continuing barriers to research engagement (Durante et al., 2023; Pentang & Domingo, 2024).

Research self-efficacy is particularly relevant to capability-building programs. Bandura (1997) defines self-efficacy as an individual's belief in the ability to organize and perform actions required to achieve desired outcomes. In research contexts, such beliefs may influence willingness to initiate a study, persist through methodological difficulties, analyze data, write manuscripts, and pursue publication. Research involving university faculty has demonstrated positive relationships between research self-efficacy and scholarly productivity (Pasupathy & Siwatu, 2014; Pentang & Domingo, 2024).

Research barriers may also involve affective and technical difficulties. Statistics anxiety, for example, includes apprehension and negative emotional responses associated with statistical learning and analysis (Onwuegbuzie & Wilson, 2003). Thus, participants who report difficulty with research methodology or statistics may require not only technical instruction but also guided practice, mentoring, and supportive feedback. Recent Philippine evidence similarly indicates that research hesitancy may arise from individual, institutional, scientific, and professional barriers, including limited confidence, insufficient knowledge, lack of mentors, restricted funding, and inadequate institutional research programs (Durante et al., 2023).

Institutional conditions are equally significant. Heavy teaching and administrative responsibilities may reduce the time available for sustained research activity (Griffith & Altinay, 2020). Consequently, research capability development should be supported by appropriate workload arrangements, mentoring structures, opportunities for collaboration, research resources, and clear pathways from training to completed outputs. Philippine research likewise emphasizes that sustainable research culture depends on coordinated institutional leadership and support rather than on individual motivation alone (Quimbo & Sulabo, 2014; Quitoras & Abuso, 2021).

Within this context, Universidad de Manila implemented RESEARCH CONNECT 2025 as a capability-building initiative for faculty and administrative personnel. Prior to the program's implementation, registered participants identified their perceived research strengths, challenges, and expectations through open-ended diagnostic questions. Their responses indicated perceived strengths in curiosity, willingness to learn, perseverance, collaboration, technical familiarity, and digital literacy, alongside barriers related to workload, confidence, methodology, statistics, resources, and personal circumstances.

The present study therefore examines these responses as a qualitative diagnostic needs assessment of RESEARCH CONNECT participants. Rather than treating the diagnostic as an objective measure of research competence or as evidence of program effectiveness, the study uses participants' self-perceptions to identify capability-building priorities and inform the design of differentiated training, mentoring, research support, and subsequent program evaluation. This distinction is important because the available diagnostic data describe perceived strengths, barriers, and expectations but do not directly measure actual research competence or productivity.

STATEMENT OF THE PROBLEM

Research capability-building programs are more responsive when they are grounded in the actual needs, perceived strengths, and challenges of their intended participants. Faculty and administrative personnel may enter research development programs with varying levels of confidence, prior experience, methodological familiarity, motivation, and access to institutional support. At the same time, barriers such as workload, limited time, research anxiety, methodological difficulty, resource constraints, and lack of mentoring may affect their ability to initiate, sustain, and complete research activities.

Within Universidad de Manila, RESEARCH CONNECT 2025 was developed as a capability-building initiative for faculty and administrative personnel. Before program implementation, participants were asked to identify the strengths they believed they could bring to research, the barriers and limitations they experienced, and their expectations regarding research training and support. These diagnostic responses provide an opportunity to identify participant needs and translate them into more responsive program

components. However, because the data are based on self-reported open-ended responses, they should be interpreted as a qualitative needs assessment rather than as an objective measure of actual research competence or program effectiveness.

Accordingly, the study seeks to examine the self-perceived research strengths, reported barriers, and capability-building expectations of RESEARCH CONNECT participants and to use these findings to identify practical program design priorities and measurable indicators for subsequent evaluation.

Specifically, the study seeks to answer the following questions:

1. What self-perceived strengths do participants believe they bring to research engagement?
2. What barriers and limitations do participants report in undertaking research?
3. What are the participants' expectations regarding:
 - 3.1 research training and skill development;
 - 3.2 mentoring and coaching;
 - 3.3 confidence and motivation;
 - 3.4 collaboration and peer support; and
 - 3.5 completion, presentation, and publication of scholarly outputs?
4. What practical design priorities for RESEARCH CONNECT may be derived from the identified strengths, barriers, and expectations of participants?
5. What measurable indicators may be proposed for the subsequent evaluation of RESEARCH CONNECT in terms of:
 - 5.1 research self-efficacy;
 - 5.2 methodological and analytical competence;
 - 5.3 research milestone completion;
 - 5.4 completed studies;
 - 5.5 research presentations and submissions; and
 - 5.6 publication outcomes?

METHODOLOGY

The study employed a qualitative descriptive diagnostic assessment to examine participants' self-perceived research strengths, barriers, and capability-building expectations among those enrolled in RESEARCH CONNECT 2025. A qualitative descriptive approach was appropriate because the study sought a straightforward account of participants' experiences and perceptions without imposing a predetermined theoretical framework or generating a formal theory. Qualitative description is particularly useful when the purpose is to summarize participants' perspectives in terms that can directly inform practice and program development (Sandelowski, 2000).

The activity was treated as a diagnostic or needs assessment rather than a pre-test, because the data were generated through open-ended questions and were not based on a standardized or scored instrument. Accordingly, the assessment was intended to identify perceived strengths, reported difficulties, and expectations that could guide the design of subsequent research capability-building activities.

The participants consisted of 36 faculty and administrative personnel who completed the RESEARCH CONNECT diagnostic assessment. These respondents were registered participants in the capability-building program and provided information on their perceived preparedness for research, barriers to research engagement, and expectations of the program.

Because the study was designed as an institutional diagnostic assessment, the participants represented the specific group for whom RESEARCH CONNECT activities were being developed. The findings, therefore, describe the perceptions of this cohort and are not intended to represent all faculty and administrative personnel at Universidad de Manila or other higher education institutions.

Data were obtained through three open-ended diagnostic prompts: What are your strengths as a potential researcher? What challenges or limitations do you face? What are your expectations from this program? The open-ended format allowed participants to describe their perceptions in their own words rather than limiting responses to predetermined categories. Such an approach is appropriate for exploratory diagnostic work because it can reveal concerns, capabilities, and expectations that may not be adequately captured by fixed-response items.

The responses were subjected to inductive thematic analysis. This approach enabled recurring patterns to emerge from the participants' responses rather than assigning the data to predetermined categories. The analysis followed the general thematic-analysis procedures described by Braun and Clarke (2006): familiarization with the responses, initial coding, identification of potential themes, review and refinement of themes, definition and naming of themes, and selection of representative statements to illustrate the resulting thematic patterns. The analysis focused on three principal domains corresponding to the diagnostic questions: self-perceived research strengths, reported barriers and limitations, and capability-building expectations. Responses expressing similar ideas were grouped into codes, and related codes were subsequently organized into broader themes. The resulting themes were then interpreted in relation to potential implications for the design of RESEARCH CONNECT.

The diagnostic assessment captured participants' self-perceived strengths, reported barriers, and expectations concerning research engagement. These responses should not be interpreted as objective measures of research knowledge, methodological competence, statistical proficiency, validated research self-efficacy, or actual research productivity.

Consequently, the findings were interpreted as needs-assessment evidence for program planning rather than as proof of research readiness or RESEARCH CONNECT effectiveness. Evaluation of actual capability development would require additional measures, such as validated self-efficacy instruments, research-skills assessments, milestone completion, completed studies, conference presentations, manuscript submissions, or publications before and after participation in the program.

RESULTS AND DISCUSSION

Self-Perceived Strengths Participants Bring to Research Engagement

The diagnostic responses revealed five recurring strengths that participants believed they could contribute to research engagement: curiosity and willingness to learn, technical and analytical familiarity, perseverance and commitment, collaborative and mentoring readiness, and digital literacy and technological adaptability. These themes represent participants' self-perceptions and should be interpreted as perceived assets rather than objective evidence of research competence.

Table 48. Self-Perceived Strengths of RESEARCH CONNECT Participants

Theme	Description of Self-Perceived Strength	Participant Responses	Program Implication
Curiosity and willingness to learn	Openness to new knowledge, inquiry, and improvement	"I am always curious about things"; "Willingness to learn"	Provides a motivational foundation for research capability development
Technical and analytical familiarity	Perceived familiarity with statistics, data analysis, research writing, and research procedures	"Statistical skills"; "Data analysis"	Suggests varied starting levels and the need for differentiated skills assessment
Perseverance and commitment	Persistence, patience, dedication, and willingness to complete difficult research tasks	"Perseverance in doing things"; "Passion, drive in doing research"	May support sustained engagement through demanding stages of research

Collaborative and mentoring readiness	Willingness to work with, learn from, and assist other researchers	"I can work collaboratively"; "Co-authoring with other researchers"	Supports peer mentoring, research teams, and collaborative projects
Digital literacy and technological adaptability	Perceived ability to use technology, websites, online resources, and digital data-collection tools	"Knowing how to use technology"	Can support literature searching, digital data gathering, analysis, and research dissemination

The most evident strength was the participants' orientation toward learning and improvement. Curiosity, willingness to learn, and openness to developing new skills provide favorable motivational conditions for research engagement. These characteristics are important because sustained research activity requires individuals to confront unfamiliar methodological and analytical tasks and remain engaged despite difficulty. Research self-efficacy literature likewise indicates that confidence and positive beliefs about one's research capability are associated with greater research engagement and scholarly productivity (Pasupathy & Siwatu, 2014; Quimbo & Sulabo, 2014).

Participants also identified technical and analytical familiarity, including perceived knowledge of statistics, data analysis, research procedures, and academic writing. However, these responses should not be interpreted as verified methodological competence. The presence of participants who report prior technical familiarity alongside those who require foundational support suggests heterogeneity in starting capability. This supports the use of diagnostic skills assessments and differentiated learning pathways rather than a uniform training sequence for all RESEARCH CONNECT participants.

Perseverance and commitment were also prominent strengths. Participants described themselves as persistent, dedicated, and passionate about completing challenging tasks. Such dispositions may be particularly useful in research, where proposal development, data collection, analysis, revision, and publication often require sustained effort. Bandura (1997) emphasizes that efficacy beliefs influence persistence when individuals encounter difficult tasks, suggesting that these motivational resources can be strengthened through guided mastery experiences and constructive feedback.

Another notable theme was collaborative readiness. Participants expressed openness to teamwork, co-authorship, mentoring, and learning from others. This is particularly relevant to institutional research culture because collaboration and mentoring can provide intellectual, technical, and social support for researchers at different stages of development. Philippine evidence identifies mentoring, collaboration, leadership, and institutional support as important elements in developing a sustainable research culture in higher education institutions (Quitoras & Abuso, 2021).

Finally, participants reported digital literacy and technological adaptability, including familiarity with technology, online information sources, and digital tools for data collection. These perceived competencies provide a useful foundation for contemporary research activities such as literature retrieval, online surveys, data management, collaborative writing, and dissemination. Nevertheless, the diagnostic did not objectively assess participants' level of digital or research competence.

The findings portray RESEARCH CONNECT participants as possessing substantial motivational and collaborative assets, accompanied by varying levels of perceived technical and digital familiarity. These strengths provide useful entry points for capability building, but they should not be equated with research readiness. The program may therefore build on participants' curiosity, persistence, collaboration, and technological adaptability, while participants independently assess and develop their methodological, statistical, analytical, and scholarly writing competencies.

Barriers and Limitations Reported in Undertaking Research

The diagnostic assessment identified five major barriers to research engagement: time and workload constraints, low confidence and research anxiety, methodological and analytical difficulty, resource and financial constraints, and health or personal conditions. These barriers indicate that participants' difficulties are not purely technical; they also involve psychological and institutional conditions that may affect sustained research participation.

Table 49. Reported Barriers and Limitations to Research Engagement

Theme	Reported Barrier	Participant Responses	Interpretation
Time and workload constraints	Competing teaching, administrative, research, and personal responsibilities limit available research time	"Workload and time"; "Time and availability"; "Time management"	Indicates the need for realistic scheduling, milestone pacing, and institutional workload support
Low confidence and research anxiety	Fear of statistics, uncertainty about beginning a study, and lack of confidence in conducting or presenting research	"Fear of statistics and to conduct research"; "How to start a topic"; "Time and confidence"	Suggests that training should address both technical knowledge and research confidence
Methodological and analytical difficulty	Challenges involving research design, methodology, statistics, analysis, writing, and organization	"Doing the methodology, analysis, and writing"; "Research methodology"; "Organizing a paper"	Supports applied, scaffolded training in methods, analysis, and scholarly writing
Resource and financial constraints	Limited budget, materials, research expenses, and access to financial support	"Budget"; "Resources (financial)"; "Time and financial support"	Indicates that research capability development also requires institutional resources
Health and personal conditions	Personal circumstances or health-related concerns affecting participation and completion	Reported through individual diagnostic responses	Supports flexible participation and appropriate confidentiality safeguards

Time and workload emerged as the most prominent barrier. The diagnostic indicates that time-related concerns appeared in 28 of the 36 responses, suggesting that limited research engagement cannot be attributed solely to individual motivation or skill. Faculty and administrative personnel often balance teaching, service, administrative, and personal responsibilities, which can reduce the sustained time needed for research. Griffith and Altinay (2020) similarly emphasize that workload allocation can influence faculty capacity to participate meaningfully in research. This finding supports program arrangements such as realistic research milestones, negotiated schedules, and, where institutionally feasible, protected research time.

A second major concern involved low confidence and research anxiety. Participants reported fear of statistics, uncertainty about how to begin a study, and difficulty developing confidence in research and presentation. These responses suggest that research barriers may be affective as well as cognitive. Statistics anxiety can involve apprehension, fear, and negative emotional reactions to statistical tasks (Onwuegbuzie & Wilson, 2003). RESEARCH CONNECT may therefore benefit from low-pressure applied exercises, guided practice, mentoring, and constructive feedback rather than relying exclusively on lecture-based technical instruction.

Participants also reported methodological and analytical difficulties, particularly in research methods, statistical analysis, writing, and organizing papers. These concerns indicate a need for scaffolded capability-

building that progresses from problem identification and research design to analysis, interpretation, writing, and dissemination. Such support is particularly important when participants enter the program with different levels of prior research experience.

Financial and resource limitations were likewise identified as barriers. Research activities may require access to data, software, materials, dissemination opportunities, and other institutional resources. Philippine studies have shown that incentives, resources, mentoring, collaboration, and institutional research support are associated with stronger research engagement and productivity (Quimbo & Sulabo, 2014; Quitoras & Abuso, 2021). Resource constraints should therefore be viewed partly as an institutional issue rather than solely as an individual limitation.

Finally, some participants identified health and personal circumstances that could affect research engagement. These concerns warrant flexible participation arrangements and careful protection of confidentiality, particularly because the participant cohort is relatively small and individual circumstances may become identifiable.

The findings show that barriers to research engagement among RESEARCH CONNECT participants are multidimensional, combining structural constraints, confidence-related concerns, methodological difficulties, and resource limitations. The results suggest that capability-building initiatives should not focus exclusively on teaching research methods; they should also incorporate mentoring, supportive statistical training, realistic workload arrangements, accessible research resources, and flexible participation mechanisms.

Participants' Expectations from RESEARCH CONNECT

The diagnostic responses revealed five major expectations from RESEARCH CONNECT: research training and skill development, mentoring and coaching, confidence and motivation-building, collaboration and peer support, and assistance with completing and disseminating scholarly outputs. These expectations indicate that participants are seeking not only research knowledge but also guided, practical, and output-oriented support.

Table 50. Participants' Expectations from RESEARCH CONNECT

Expectation	Description	Participant Responses	Program Implication
Research training and skill development	Improvement in research conceptualization, writing, methodology, analysis, and communication	"To enhance my skills in writing research"; "To improve my research capability"	Provide applied and progressive research-skills training
Mentoring and coaching	Individualized guidance, consultation, feedback, and mentor-supported learning	"Coaching style and mentorship"; "To share and mentor"	Establish structured mentoring and regular consultation mechanisms
Confidence and motivation	Increased self-belief, reduced apprehension, and sustained motivation to conduct research	"Get motivated"; "To be confident in doing research"	Incorporate guided practice, feedback, and confidence-building activities
Collaboration and peer support	Collegial, interactive, and supportive research learning environment	"To learn and have fun"; "To improve and foster collaboration"	Develop peer groups, research teams, and collaborative learning activities
Completion, presentation, and publication of scholarly outputs	Support in producing completed studies, conference presentations, and publishable manuscripts	"Will be able to publish research"; "To publish/finished research"	Structure the program around progressive outputs from idea development to dissemination

Research training and skill development emerged as a central expectation. Participants expressed a desire to improve their research writing, conceptualization, methodological understanding, analysis, and overall research capability. This indicates that RESEARCH CONNECT should emphasize applied learning rather than stand-alone lectures. Given the varied self-reported levels of prior research familiarity, training may be more effective when structured progressively from foundational concepts to more advanced methodological and analytical tasks.

Participants also strongly expected mentoring and coaching. Their responses indicate a preference for individualized guidance and continued consultation rather than purely didactic instruction. Mentoring is particularly relevant to institutional research development because it can provide technical guidance, accountability, feedback, and professional encouragement. Philippine research on higher education research culture likewise identifies mentoring, collaboration, and institutional leadership as important mechanisms for sustaining research engagement (Quitoras & Abuso, 2021).

A related expectation concerned confidence and motivation building. Participants wanted the program to help them become more confident and motivated in undertaking research. This expectation is consistent with the reported barriers involving research anxiety and uncertainty. Research self-efficacy is associated with greater persistence and engagement in research-related tasks (Bandura, 1997; Pasupathy & Siwatu, 2014). RESEARCH CONNECT may therefore combine technical instruction with mastery experiences, guided practice, constructive feedback, and attainable research milestones.

Participants further expected a collaborative and supportive learning environment. Their responses emphasized interaction, collegiality, teamwork, and opportunities to learn with others. This suggests that research capacity building should not be treated exclusively as an individual undertaking. Peer accountability groups, collaborative projects, co-authorship opportunities, and research communities may help sustain participation and strengthen the broader institutional research culture (Quitoras & Abuso, 2021).

Finally, participants expressed a clear expectation that the program would lead to tangible scholarly outputs, including completed research, conference presentations, and publications. This is a significant program design consideration because participants are seeking a pathway from learning research concepts to producing tangible outputs. The program may therefore be organized around progressive milestones such as research questions, concept notes, literature reviews, methods plans, analyses, conference abstracts, and manuscript sections. This output-oriented structure would also make subsequent program evaluation more meaningful by distinguishing participation in training from the completion and dissemination of actual research.

The findings show that participants expect RESEARCH CONNECT to function as a practical, mentor-supported, confidence-building, collaborative, and output-oriented research capability program. These expectations provide a clear basis for designing the initiative around progressive skill development, sustained mentoring, peer collaboration, and measurable scholarly milestones rather than relying primarily on seminar attendance.

Practical Design Priorities for RESEARCH CONNECT

The identified strengths, barriers, and expectations of participants indicate that RESEARCH CONNECT should be designed as a differentiated, mentor-supported, applied, and output-oriented research capability-building program rather than as a series of uniform research seminars. Participants reported strong motivation and willingness to learn but also uneven technical confidence, limited research time, methodological difficulties, research anxiety, resource constraints, and a desire for sustained mentoring and tangible scholarly outputs.

Table 51. Practical Design Priorities for RESEARCH CONNECT

Diagnostic Finding	Design Priority	Proposed Program Response	Intended Immediate Output
Participants have varied research experience and technical familiarity	Differentiated learning pathways	Conduct initial skills assessment and organize foundational and advanced tracks	Individual capability profile and appropriate training pathway
Time and workload are major barriers	Realistic pacing and institutional workload support	Establish research calendars, negotiated milestones, and protected research periods where feasible	Individual research plan and milestone schedule
Participants report difficulty and anxiety involving methodology and statistics	Applied methods and statistics support	Conduct hands-on methods workshops and low-pressure statistics clinics using participant research problems	Feasible methods plan and analysis exercises
Participants expect individualized guidance	Structured mentoring and coaching	Match participants with mentors and establish regular consultation checkpoints	Mentoring agreement and consultation record
Participants value collaboration and peer support	Research communities and peer accountability	Form research circles, collaborative teams, and peer-feedback groups	Peer-supported research milestones and collaborative outputs
Participants aspire to complete and publish research	Progressive research-to-publication pathway	Organize activities from topic development to proposal, implementation, analysis, presentation, and manuscript preparation	Completed proposal, study, abstract, or manuscript
Financial and resource limitations are reported	Accessible institutional research support	Provide transparent access to research services, resources, grants, or dissemination assistance where feasible	Approved resource plan and supported research activity
Confidence and motivation are uneven	Confidence-building through mastery and feedback	Use guided practice, achievable milestones, formative feedback, and recognition of progress	Improved research engagement and perceived capability
Program effectiveness remains untested	Integrated monitoring and evaluation	Establish baseline and follow-up measures for capability, milestones, outputs, and dissemination	Evidence for subsequent program evaluation

A primary priority is the development of differentiated learning pathways. Participants reported varying levels of familiarity with statistics, data analysis, research writing, and technology, indicating that a single training sequence may not address all learning needs. Foundational participants may require support with topic development, research design, and basic analysis, while more experienced participants may benefit from advanced methods, manuscript development, publication strategies, and mentoring.

A second priority is addressing time and workload as structural constraints. Time-related barriers reportedly appeared in 28 of the 36 responses, making this one of the clearest concerns in the diagnostic. Rather than treating time management solely as an individual responsibility, RESEARCH CONNECT may adopt milestone-based pacing, negotiated research calendars, and, where institutionally feasible, protected research periods. Faculty workload research similarly indicates that teaching and service responsibilities can constrain sustained research engagement (Griffith & Altinay, 2020).

The program should also emphasize training in applied methodology and statistics. Participants reported both technical difficulty and anxiety concerning methodology, analysis, and statistics. Consequently, workshops should use actual participant research questions and datasets, guided exercises, repeated practice, and supportive feedback. This approach recognizes that statistics-related difficulties can involve both knowledge gaps and affective responses such as apprehension and anxiety (Onwuegbuzie & Wilson, 2003).

Structured mentoring and collaborative support should constitute another core component. Participants explicitly requested coaching, individualized guidance, and opportunities for collaboration. Mentor assignment based on research topic or methodological need, scheduled consultation checkpoints, peer-accountability circles, and research teams can provide continuity beyond formal training sessions. Mentoring and collaboration have likewise been identified as important elements of sustainable research culture in Philippine higher education institutions (Quitoras & Abuso, 2021).

RESEARCH CONNECT should further adopt an output-oriented research pathway. Participants expressed aspirations not merely to learn about research but to complete, present, and publish scholarly work. The program may therefore structure successive modules around concrete milestones, progressing from research ideas and problem formulation to proposal development, implementation, analysis, conference presentation, manuscript preparation, and submission. This staged approach is more consistent with participants' needs than assuming that all are immediately ready for publication.

Finally, the program should incorporate institutional resource support and formal monitoring and evaluation. Where feasible, access to research services, data-analysis assistance, micro-grants, publication support, or conference assistance should be governed by transparent criteria. At the same time, program success should be assessed through measurable outcomes such as changes in research self-efficacy, methodological competence, milestone completion, completed studies, presentations, manuscript submissions, and publications rather than seminar attendance alone.

The diagnostic supports a RESEARCH CONNECT design centered on differentiated training, realistic workload accommodation, applied methods support, sustained mentoring, collaborative research communities, progressive scholarly outputs, accessible resources, and measurable evaluation. These priorities are evidence-informed program design directions derived from participants' needs; their actual effectiveness should be established through subsequent program evaluation.

Proposed Measurable Indicators for Subsequent Evaluation of RESEARCH CONNECT

The diagnostic findings indicate that subsequent evaluation of RESEARCH CONNECT should move beyond attendance, number of workshops conducted, or participant satisfaction. Evaluation should determine whether participation is followed by measurable changes in research confidence, methodological competence, completion of research milestones, and production and dissemination of scholarly outputs. The distinction between program activities and outcomes is important: mentoring sessions and statistics clinics are activities, whereas improved competence, completed studies, presentations, submissions, and publications represent measurable outcomes.

Table 5. Proposed Indicators for the Evaluation of RESEARCH CONNECT

Evaluation Domain	Proposed Measurable Indicators	Suggested Evidence/Measurement	Evaluation Period
Research self-efficacy	Pre- to post-program change in confidence in conceptualizing, designing, analyzing, writing, presenting, and publishing research	Validated or locally validated research self-efficacy scale; pre-/post-program scores	Baseline and program completion

Methodological and analytical competence	Percentage demonstrating acceptable competence in research design, methodology selection, data analysis, interpretation, and scholarly writing	Practical skills assessment; research proposal rubric; analysis exercise; manuscript rubric	Baseline, during program, and completion
Research milestone completion	Percentage completing agreed milestones; on-time completion rate; number of milestones completed per participant	Individual research calendar, milestone tracker, mentor consultation log	Monthly or per program phase
Completed studies	Number and percentage of participants completing a research study; number of approved and implemented protocols	Completed research reports, institutional records, research-office verification	End of one research cycle
Research presentations and submissions	Number and percentage presenting research; abstracts submitted and accepted; manuscripts submitted to journals	Conference acceptance letters, certificates, presentation records, journal submission acknowledgments	Program completion and follow-up
Publication outcomes	Number and percentage of participants with accepted or published articles; publication rate among completed studies	Journal acceptance letters, published articles, DOI or journal records where applicable	Six- to twelve-month follow-up

Research Self-Efficacy

Research self-efficacy should be assessed using a validated or appropriately locally validated instrument administered before and after the program. Indicators may include changes in confidence in developing research questions, selecting appropriate methods, analyzing data, interpreting findings, writing manuscripts, and presenting research. Self-efficacy is relevant because perceived capability can influence persistence and engagement in challenging tasks (Bandura, 1997), and research self-efficacy has been associated with faculty research productivity and engagement (Pasupathy & Siwatu, 2014). The diagnostic itself identified confidence-building as an important participant expectation, but the open-ended responses should not be treated as a baseline self-efficacy score.

Methodological and Analytical Competence

Methodological competence should be assessed through performance-based measures rather than self-report alone. Participants may complete practical exercises involving research-problem formulation, design selection, sampling, instrument development, data analysis, interpretation, and academic writing. A common rubric may be used to compare baseline and post-training performance. This is particularly important because participants reported difficulties with methodology, statistics, analysis, and paper organization. Improvement should therefore be demonstrated through properly conducted research tasks rather than simply by perceived confidence.

Research Milestone Completion

Because participants expressed a desire to progress toward tangible research outputs, RESEARCH CONNECT should track milestone completion rates throughout the program. Milestones may include an approved research topic, a problem statement, a literature synthesis, a methods plan, a proposal, data collection, data analysis, a draft manuscript, and a submission-ready paper. The percentage of participants completing each milestone and the proportion completing milestones within the agreed schedule can

provide direct evidence of research progression. The existing program framework similarly proposes individual research calendars, consultation logs, and milestone completion as evaluation indicators.

Completed Studies

A stronger program outcome is the completion of actual research studies. Indicators should include the number and percentage of participants who progress from proposal development to implementation and completion within a single research cycle. Completed studies should be verified through research reports or institutional records rather than participant claims alone. Tracking completion is particularly relevant because the diagnostic showed that participants aspire to produce finished research but may experience difficulty at earlier stages of conceptualization, methodology, and analysis.

Research Presentations and Submissions

Research dissemination should be evaluated through the number and proportion of participants who submit and present their work at research conferences or other scholarly venues, as well as the number of manuscripts formally submitted to journals. Relevant indicators may include abstracts submitted, abstracts accepted, oral or poster presentations completed, manuscripts submitted, and manuscripts progressing through peer review. These indicators provide stronger evidence of scholarly engagement than training attendance does, as they demonstrate progression from research development to external dissemination.

Publication Outcomes

Publication represents a longer-term outcome and should therefore be assessed through follow-up monitoring. Indicators may include the number and percentage of participants with accepted or published manuscripts, the publication rate among completed studies, and the time from study completion to manuscript submission or publication. Institutional verification through acceptance letters, published articles, or journal records should be used where feasible. Philippine institutional research culture research emphasizes that mentoring, collaboration, incentives, and organizational support are important for sustaining scholarly productivity (Quimbo & Sulabo, 2014; Quitoras & Abuso, 2021).

The evaluation of RESEARCH CONNECT should follow a baseline–implementation–completion–follow-up structure. Research self-efficacy and competence may be assessed before and immediately after training, while research milestones should be monitored throughout implementation. Completed studies, presentations, submissions, and publications require longer-term follow-up, preferably covering at least one complete research cycle. The article recommends pre- and post-program indicators and ongoing participant tracking to assess study completion, presentation, submission, and publication outcomes.

This framework would allow Universidad de Manila to determine not merely whether RESEARCH CONNECT was implemented, but whether participants demonstrated measurable development in research capability and progression toward verified scholarly outputs.

CONCLUSIONS

The study concludes that participants in RESEARCH CONNECT 2025 possess several self-perceived strengths that can serve as useful foundations for developing research capability. These include curiosity, willingness to learn, perseverance, openness to collaboration, and familiarity with digital and research-related tools. However, these reported strengths represent participants' perceptions and should not be interpreted as verified evidence of methodological competence or research readiness.

At the same time, participants reported substantial barriers to sustained research engagement. Time and workload constraints emerged as the most prominent concern, alongside low confidence, research anxiety, difficulty with methodology and data analysis, limited financial or material resources, and personal

circumstances. These findings indicate that research capability building should address both individual skill development and the institutional conditions that affect participants' ability to initiate and complete research activities.

Participants' expectations further show that they seek more than general exposure to research concepts. They expect practical skills development, mentoring and coaching, confidence-building, collaborative learning, and clear assistance in progressing toward completing studies, conference presentations, and publications. This indicates the need for RESEARCH CONNECT to function as a structured, progressive research-and-development pathway rather than a series of stand-alone seminars.

Based on the integrated diagnostic findings, RESEARCH CONNECT may be strengthened through differentiated learning pathways, applied methodology and statistics support, structured mentoring, peer collaboration, realistic milestone schedules, and institutional resource assistance. The program should likewise adopt an output-oriented progression from research idea development to proposal preparation, implementation, analysis, dissemination, and publication. Such a design is more responsive to participants' varying starting capabilities and reported needs.

The study provides a credible basis for needs assessment to refine RESEARCH CONNECT, but it does not establish that the program has already improved research competence or productivity. Its effectiveness should therefore be evaluated prospectively using measurable indicators, including changes in research self-efficacy, methodological and analytical competence, milestone completion, completed studies, research presentations, manuscript submissions, and publication outcomes. In this way, Universidad de Manila can move from documenting participation in research training toward demonstrating sustained development in research capability and scholarly productivity.

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Ultimately, this study reflects the collective commitment of individuals and institutional units that recognize the value of research, continuous professional development, and evidence-informed academic practice. Their contributions affirm the important role of scholarly inquiry in strengthening institutional programs,

enhancing educational practice, and advancing Universidad de Manila's broader mission to serve its academic community and society.

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