Research and Development Management Practices of Local Colleges in the Davao Region

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ABSTRACT

Research and development (R&D) management is essential in strengthening institutional research productivity, governance, and sustainability among higher education institutions. Despite the growing emphasis on research as a driver of innovation and regional development, locally funded colleges continue to encounter challenges related to governance structures, resource allocation, faculty engagement, and policy implementation. This study explored the research and development management practices of local colleges in the Davao Region. Guided by Administrative Management Theory and contemporary management perspectives, the study employed a qualitative approach using a single instrumental case study design. Fourteen purposively selected participants, composed of research directors, program heads, and faculty researchers from six local colleges, participated in in-depth interviews. Data were analyzed through deductive and inductive thematic analysis. Findings revealed seven major themes that characterize R&D management practices among local colleges: Strategic Direction in Research and Development, Centralized Bureaucratic Research Governance Structure, Leadership-Driven Capacity Building System, Integrated Process Standardization in Research Governance, Compliance-Driven Policy Formulation, Performance Accountability Systems, and Multi-Source Resource Mobilization System for Sustainable Research Development. These themes demonstrate that effective research management is achieved through strategic planning, structured governance, leadership support, policy compliance, standardized procedures, accountability mechanisms, and diversified resource generation. The findings further indicate that institutional commitment, stakeholder collaboration, and continuous capacity-building initiatives are vital in fostering a sustainable research culture. The study concludes that strengthening research governance through integrated management systems contributes significantly to institutional effectiveness and research sustainability. The findings provide valuable insights for policymakers, institutional leaders, and higher education stakeholders in developing policies and strategies that enhance research productivity and promote sustainable research development among local colleges.

Keywords: Local Colleges, R&D Management, Davao Region, Research Culture, Institutional Sustainability, Qualitative Case Study

INTRODUCTION

The management of research in locally funded higher education institutions (HEIs) became a focal issue, particularly because these institutions were supposed to encourage knowledge creation, innovation, and evidence-based policymaking (Bayudan-Dacuycuy et al., 2024; Flores, 2022). Locally funded colleges, as distinct from state universities and private HEIs, typically had more limited resources and had a more regional aspect to their development. Governed by frameworks from the Commission on Higher Education (CHED), such as the National Higher Education Research Agenda (NHERA 3) and the Institutional Sustainability Assessment (ISA), these colleges were mandated to develop research capacity, improve governance, and establish collaborative networks intended to enhance academic and regional development (CHED, 2016; CHED, 2021). These national mandates highlighted the importance of research management in enabling locally funded colleges to play a vital role in contributing to the nation's growth while also addressing region-specific challenges.

In relation to practices, it was noted that local colleges often faced significant challenges in their research and development (R&D) practices, which hindered their overall effectiveness and contributions to academia and society (Toniolo et al., 2024). One major issue was the lack of faculty engagement in research initiatives, often referred to as a governance paradox where institutional policies were in place, but faculty involvement remained minimal due to insufficient incentives or support structures (Liang, 2025). Furthermore, organizational barriers, including inadequate funding and resources, significantly reduced opportunities for scholarly activities (Ndimbo & Nkwabi, 2025). Research indicated that these barriers exacerbated challenges, leading to unequal access to information and collaboration opportunities among academics, particularly in different locales (Wilson, 2024). In

addition to resource limitations, entrenched traditional educational norms and practices within these institutions contributed to stagnation in innovation and research (Sharma, 2024). As a result, many local colleges struggled to foster a vibrant research culture that could enhance student engagement and improve academic outcomes (Toniolo et al., 2024).

Despite these national policies, locally funded colleges throughout the Philippines experienced serious research management problems that were regional in scope. For instance, in the Bicol Region, local colleges faced challenges in terms of faculty qualifications and low-budget research programs, which stalled their research productivity (Alcazaren, 2021). Similarly, institutions in Central Luzon struggled to address structural problems, such as limitations in setting long-term research agendas, which affected research effectiveness (Lunag et al., 2024). The MIMAROPA Region was faced with poor institutional funding and difficulties in securing external research support. These issues revealed a general pattern across regions where there was a mismatch between national research frameworks and the locally based research management capacities of colleges (Fajilagmago et al., 2024).

In the case of the Davao Region, the management of research in government-funded local colleges was also compromised due to limited funding, low faculty participation in research, and under-resourced institutional research offices (Jessani et al., 2018; Panerio, 2023). Faculty members had heavy teaching workloads that left little room for scholarly activity, and in some cases, there was inadequate mentoring, which hindered the development of research competency (Labasano, 2018). Moreover, limited research funding reduced access to essential research materials (e.g., databases, laboratories, and funding opportunities). This situation was worsened by weak organizational frameworks in institutional research offices, making it difficult to establish effective research policies and networks that could support a sustainable research culture (Panerio, 2023).

Although the issue of research management in local colleges had already been widely discussed, particularly in relation to funding, faculty capacity, and weak institutional frameworks (Baylan, 2023; Rivera et al., 2025), only a few studies had focused specifically on the Davao Region. Most research had concentrated on state universities or private HEIs and overlooked locally funded colleges (Aldaba et al., 2024; Lorenzo, 2022). Furthermore, existing literature failed to consider regional variations in policy implementation, governance, and institutional capacity, which influenced the effectiveness of research management. This gap called for targeted empirical studies on research management challenges and opportunities in locally funded colleges in the Davao Region.

Moreover, the disconnect between national mandates and local college practices revealed a concerning trend in higher education. Although government policies were enacted to encourage research and development, their translation into actionable practices at the local level remained inadequate (Wilson, 2024). Studies illustrated that policy implementation often lacked the necessary frameworks or accountability measures, resulting in inconsistent execution across institutions (Liang, 2025). These findings underscored the need for systematic reform at the governance level—while policies existed, mechanisms to support faculty engagement and resource allocation were often ineffective, undermining institutional objectives (Gubert, 2025). Furthermore, without strong communication and collaboration between local colleges and government bodies, the potential benefits of these policies were largely untapped, resulting in a fragmented research landscape that failed to effectively address community needs (Pranyoto et al., 2024).

This study aimed to address these gaps by examining the practices and management issues faced by local colleges in the Davao Region when conducting research. These issues were important for developing policies that could improve research productivity, faculty involvement, and regional development. The social significance of the study lay in its potential to inform CHED policies, strengthen local governance, and promote sustainable research practices. Since locally funded colleges in the Davao Region played an active role in addressing urgent regional needs such as poverty reduction, community health, and educational equity, improving research management contributed significantly to the socio-economic development of the region.

Thus, the necessity of the study became evident: without a systematic approach to research management, locally funded colleges in the Davao Region risked failing to meet national expectations in contributing to regional development. The findings of the study were expected to be significant in academic discourse and policy development. The dissemination of results through academic conferences, peer-reviewed articles, and policy briefs ensured that the research not only contributed to academic knowledge but also influenced policies aimed at institutionalizing a sustainable research culture in the region.

Purpose Statement

This case study aimed to explore and understand the practices concerning the research and development management of local colleges in the Davao Region based on the guidelines and structures of the Commission on Higher Education (CHED).

Research Questions

This study aimed to examine the research management of local colleges in the Davao Region, specifically:

. What are the practices of local colleges in Davao Region in managing research and development?

Theoretical Framework

This study was grounded in the Administrative Management Theory (Fayol, 1918) offered a key lens to examine the efficiency and effectiveness of research management in local colleges, as its principles of planning, organizing, commanding, coordinating, and controlling were closely related to research functions. These principles were used to establish research agendas, implement policies, allocate resources, and monitor outputs. In local colleges, effective research management required well-organized leadership capable of systematizing faculty participation, enforcing institutional policies aligned with Commission on Higher Education (CHED) standards, and creating enabling environments that enhanced research productivity and institutional reputation.

Expanding on Fayol's classical framework, Bateman, Snell, and Konopaske (2007) developed a modern perspective on management that recognized the importance of not only efficiency and effectiveness but also strategic value delivery in dynamic environments. They conceptualized management as a dynamic process of working with people and resources by redefining the four core functions—planning, organizing, leading, and controlling—to address contemporary institutional needs. Planning provided strategic direction, organizing facilitated efficient resource mobilization, leading encouraged collaboration and flexibility, and controlling ensured accountability through monitoring and feedback.

In the context of research management in local colleges, these perspectives emphasized that administrators needed not only to systematize research activities but also to create value by ensuring that research outputs aligned with stakeholder needs, promoted innovation, and maintained competitiveness in the higher education sector. Combined with the foundational ideas of Administrative Management Theory and modern management concepts, these frameworks provided a strong conceptual basis for understanding how local colleges in the Davao Region developed, implemented, and sustained research management practices that supported both academic and institutional sustainability.

METHODOLOGY

Research Design

This study utilized a single case study design applying a qualitative approach. A case study was a qualitative research method that investigated a phenomenon by providing detailed contextual analysis and in-depth exploration of individual cases or instances. According to Yin, case studies were particularly useful for understanding complex social phenomena, as they enabled researchers to explore the dynamics of real-life situations (Ruíz et al., 2024). They often utilized multiple sources of evidence, including interviews, observations, and document reviews, thereby providing a comprehensive understanding of the case in question (Bunyi, 2013). Additionally, Stake emphasized that case studies served as a means of exploring specific instances that were significant within their context, allowing for the development of rich insights that could inform broader theories or practices (Shaath et al., 2021). Therefore, case studies were considered invaluable in educational research as they highlighted unique aspects and challenges faced by specific institutions or groups, contributing to generalizable findings.

In relation, a qualitative approach focused on understanding human experiences and behaviors through the collection of non-numerical data, such as interviews, open-ended surveys, and participant observations. This methodology emphasized exploring participants' perspectives and meanings, allowing for a nuanced understanding of the social phenomena under investigation (Fishering et al., 2016). For instance, it was noted that qualitative research played an essential role in unpacking the intricate interactions and experiences of healthcare team members, underscoring the value of capturing lived experiences (Fishering et al., 2016). Furthermore, qualitative approaches effectively gathered stakeholder perceptions, facilitating a deeper comprehension of their viewpoints and the factors influencing their experiences in educational contexts (Yaro et al., 2017). This method was distinguished by its focus on thematic analysis, which sought to identify underlying patterns in the data collected, thereby providing rich, contextual insights that quantitative methods might overlook (Brunton et al., 2019).

Further, the research design provided a detailed discussion of research management in local colleges in the Davao Region. This research was particularly suited to the case study method since it allowed an in-depth analysis of institutional dynamics, strategies, and contextual issues in research management within real-life academic institutions. In accordance with the categories of case studies presented by Paparini et al. (2021), this research followed an instrumental case study design, as it was intended not only to examine individual institutions but also to generate findings that could inform broader perspectives on effective research management in higher education.

Moreover, the qualitative approach used in the study, such as interviews, provided first-hand accounts of experiences, governance mechanisms, and stakeholder perspectives (Şahin, 2021). This method was utilized to gather in-depth and comprehensive data that demonstrated how local colleges adopted research policies, developed research culture, and responded to regulatory frameworks established by the Commission on Higher Education (CHED) and accrediting bodies (Shahzad et al., 2020). The research sought to develop a refined understanding of how these institutions maintained and enhanced their research management by adopting the case study methodology under the constructivist paradigm, which ensured alignment with national quality

assurance systems and addressed challenges specific to their local contexts.

On the other hand, in philosophical terms, this study was rooted in the constructivist worldview (Creswell, 2013), which posited that individuals constructed meaning through their interactions with the world. This orientation was consistent with the case study approach, as it recognized multiple realities and diverse experiences of administrators, faculty members, and other stakeholders in shaping research practices. The interpretivist approach enabled the study to acknowledge that research management was shaped by complex social, cultural, and institutional environments, which required rigorous qualitative investigation to uncover nuanced insights.

Research Locale

In this research, the researcher conducted a study in six (6) selected local colleges in the Davao Region that were actively pursuing Research and Development (R&D) management programs. These institutions were state-owned and state-funded higher education colleges affiliated with the Commission on Higher Education. The six colleges shared similarities in terms of size, age, and institutional resources. Likewise, all institutions carried the mandate of providing accessible quality education and strengthening community development through relevant research programs. The academic programs offered by these colleges ranged from teacher education and business to agriculture and information technology, which were shaped by the economic and cultural interests of their respective localities, making them key participants in regional knowledge creation and innovation.

The selected colleges differed in student population, ranging from fewer than 1,000 to more than 3,000 enrollees, reflecting variations in research capacity, resource allocation, and program implementation. These institutions were governed by college administrators with the assistance of academic and finance offices, ensuring that national research policies were followed while local demands were addressed. The institutions were purposely selected because they had demonstrated productive research management practices, such as establishing institutional research programs, strengthening faculty development capacities, allocating and utilizing research funds, and implementing community-based research projects. Data collection, conducted from August to December 2025, specifically addressed institutional practices, challenges, opportunities, and policy directions in strengthening Research and Development management among local colleges in the Davao Region.

Sampling Procedure

This study adopted the recommendation of Donald E. Polkinghorne (1989), which suggested that qualitative research typically involved five to twenty-five participants. In alignment with this guideline, the study employed purposive sampling to select participants who could provide rich, relevant, and in-depth information regarding research and development (R&D) management in local colleges. As emphasized by Akkaş and Meydan (2015), purposive sampling ensured the inclusion of information-rich cases that yielded meaningful insights into complex institutional processes.

Based on Table 1, a total of fourteen (14) participants were involved in the In-Depth Interviews (IDIs), drawn from six (6) selected local colleges in the Davao Region. These participants included four (4) research directors, five (5) program heads, and five (5) faculty researchers. The distribution reflected the availability of qualified personnel across institutions, with some colleges having incomplete representation due to structural and staffing limitations. For instance, institutions such as Kolehiyo ng Pantukan and Samal Island City College were only able to provide program heads, indicating variations in organizational structure and research staffing capacity.

The selection of participants was guided by their active involvement in institutional decision-making, research planning, and implementation. All participants possessed between two to seven years of relevant experience, ensuring that they could provide informed and credible perspectives on R&D management practices. Individuals with limited engagement in research activities—such as non-teaching staff and those with less than two years of experience—were excluded to maintain the depth, rigor, and credibility of the data.

The variation in participant distribution across institutions highlighted the differing levels of research capacity and organizational structure among local colleges. Despite these differences, the use of In-Depth Interviews (IDIs) as the primary data collection method strengthened the qualitative design by capturing detailed individual experiences and context-specific insights. As supported by Daniël Lakens (2022), the final sample size and composition were determined based on the study's objectives, methodological considerations, and resource availability.

Overall, the data collection strategy provided a multi-perspective analysis of R&D management, incorporating insights from administrators, program leaders, and faculty researchers. This approach enhanced the study's ability to generate contextually grounded findings and propose actionable recommendations for improving research productivity and sustainability in local colleges across the Davao Region.

Table 1 In-Depth Interview Distribution of Informants

Local College (LUC)	Research Director	Program Head	Faculty Researchers	Total Participants
Kapalong College of Arts, Sciences and Technology	1	1	1	3
Monkayo College of Arts, Sciences and Technology	1	1	1	3
Kolehiyo ng Pantukan			1	1
Sto. Tomas College of Agriculture, Sciences and Technology	1	1	1	3
Samal Island City College		1		1
Maco de Oro College	1	1	1	3
Total	**4**	**5**	**5**	**14**

Research Instrument

This study employed qualitative data to examine the Research and Development (R&D) management practices of local colleges in the Davao Region. Data were collected using a researcher-generated In-Depth Interview (IDI) guide. The IDI guide consisted of a set of standard questions focusing on key institutional processes, including the planning and implementation of research programs, allocation and distribution of research funds, development of faculty research capacity, organizational structures supporting R&D, and compliance with the mandates of the Commission on Higher Education (CHED) and local government units (LGUs).

The interviews also incorporated follow-up and probing questions to elicit deeper insights into institutional practices, challenges, and opportunities related to effective R&D management. This flexible approach enabled the researcher to capture rich, detailed, and context-specific data, thereby enhancing the depth and quality of the findings (Creswell et al., 2021; Harrison et al., 2020).

Through the use of In-Depth Interviews, the study was able to gather comprehensive perspectives from key informants, including research directors, program heads, and faculty researchers. This method allowed for an in-depth exploration of participants' experiences and perceptions, contributing to a nuanced understanding of how R&D management was implemented across local colleges in the Davao Region. The resulting data supported the development of evidence-based insights and recommendations aimed at strengthening research productivity and sustainability within these institutions.

Data Gathering Procedure

The data collection design employed in this study on the research management of local colleges in the Davao Region was qualitative in nature, utilizing In-Depth Interviews (IDIs) with key stakeholders from the respective institutions. The IDIs were conducted in collaboration with research administrators to explore their experiences and perspectives regarding the planning and implementation of research programs, governance of research activities, development of faculty research capacity, management of research funds, and compliance with the mandates of the Commission on Higher Education (CHED).

The IDIs were designed to address Research Questions 1 enabling the researcher to obtain detailed and context-specific information about institutional management practices, challenges, opportunities, and preliminary policy recommendations. This approach allowed for an in-depth understanding of research management processes from the perspective of individuals directly involved in decision-making and implementation.

Prior to the conduct of the interviews, permission was secured from college presidents and institutional heads. The researcher engaged a total of fourteen (14) participants. These participants included four (4) research directors, five (5) program heads, and five (5) faculty researchers. The participants were oriented regarding the objectives of the study, data collection procedures, and ethical considerations. Interview schedules were arranged based on participants' availability to ensure a convenient and conducive environment for data gathering.

The IDI sessions were conducted on a one-on-one basis to allow participants to openly share their experiences, strategies, and challenges related to research management within their institutions. This method facilitated the collection of rich, detailed, and nuanced data essential for qualitative analysis.

To ensure adherence to ethical standards, all participants were required to sign an informed consent form prior to the interviews. The language used during the interviews was agreed upon in advance to ensure clarity and comfort. Confidentiality and anonymity were strictly maintained, and all collected data were used solely for academic purposes. With participants' consent, interviews were documented through audio recording and note-taking to ensure accuracy and completeness of the data.

As a gesture of appreciation, light refreshments were provided, and participants were acknowledged for their valuable contributions to the study. Their insights played a crucial role in generating meaningful findings and recommendations aimed at enhancing research productivity and sustainability in local colleges across the Davao Region.

Data Analysis Procedures

This study employed both deductive and inductive methods to analyze qualitative data in accordance with the framework suggested by Bingham (2023) and Bingham and Witkowsky (2022). The responses obtained through In-Depth Interviews (IDIs) with research directors, program heads, and faculty researchers from local colleges in the Davao Region were analyzed in two phases to provide both structured and emergent insights regarding the research management practices of these institutions.

Deductive Analysis

The initial phase utilized a deductive approach; wherein existing theoretical guidelines and the study's research questions were used to classify and organize the data into initial categories. Pre-established codes were developed based on the major aspects of research management, including governance of research programs, allocation of research funding, faculty research capacity building, research integration, and adherence to the mandates of the Commission on Higher Education (CHED).

This top-down method structured the information around the primary objectives of the study and ensured that no significant components of research management were overlooked. For example, data were classified under codes such as research funding strategies, faculty research support, and accreditation compliance of research programs.

Inductive Analysis

After the deductive coding process, an inductive analysis allowed emerging themes and patterns to surface directly from the data. This was a bottom-up method that incorporated the use of open coding and constant comparative analysis to identify unanticipated insights related to research management. The researcher considered IDI responses in identifying recurrent issues, new strategies, or factors that were not expected in the theoretical framework, such as new collaborations, policy modifications, or institutional approaches to enhance research productivity.

The entire inductive process involved memoing to document emerging themes, thoughts, and meanings. These memos informed the development of pattern codes and the identification of core findings that directly addressed the research questions stated in the study. For example, the analysis revealed specific institutional practices that improved faculty research output or maximized research funding in local colleges.

Combining Deductive and Inductive Analysis

The combination of deductive and inductive approaches ensured a comprehensive understanding of research management. Deductive and inductive analyses aligned with the theoretical framework and research objectives of the study, respectively, while inductive analysis helped capture nuanced and data-driven insights. Together, these methods provided a structured yet flexible interpretation of research management strategies, challenges, and effective practices that shaped research management in local colleges.

The researcher also engaged in continuous reflection during the analysis to remain flexible and responsive to the data. Representative quotes were used, and evidence from interviews and discussions was provided to support the findings and present an accurate representation of participants' experiences and perspectives. Through this approach, the study identified both systematic patterns and practical strategies that enhanced the effectiveness of research activities in local colleges within the Davao Region.

RESULTS AND DISCUSSION

This chapter presents the results of data analysis and the interpretation of the findings.

Major Themes and Core Ideas on the Management Practices of Research and Development of Local Colleges in the Davao Region

This chapter presents the results of the data analysis and interpretation of findings regarding the management practices of Research and Development (R&D) among Local Universities and Colleges (LUCs) in the Davao Region. The findings generated seven major themes and several core ideas that collectively describe how institutional research systems are strategically planned, governed, implemented, monitored, and sustained within the participating colleges. These themes include Strategic Direction in LUCs Research and Development, Compliance-Driven Policy Formulation, Centralized Bureaucratic Research Governance Structure, Multi-Source Resource Mobilization System for Sustainable Research Development, Leadership-Driven Capacity Building System, Integrated Process Standardization in Research Governance, and Performance Accountability Systems in Research Development.

Table 1: Major Themes and Core Ideas on the Management Practices of Research and Development of Local Colleges in the Davao Region

Major Themes	Core Ideas
Strategic Direction in LUCS Research and Development	• External benchmarking for framework development • Integration of regional research agendas • Alignment with institutional research priorities • Centralized research agenda formulation • Gradual institutional policy direction on research output • Strategic fiscal investment prioritization • Financial planning through EIP alignment • Continuity of management cycles • Executive scrutiny of strategic planning • Dependency on research head's presentation for budget approval
Centralized Bureaucratic Research Governance Structure	• Historical Centralized Leadership Model • Formal Integration of Research into Institutional Structure • Three-Tier Management Structure • Centralized Executive Oversight System • Structural Oversight through Research Divisions • Structural Coordination through Administrative Councils • Dual Approval (Board and LGU) Mechanisms • Allocation of Research Budgets
Leadership-Driven Capacity Building System	• Exemplary Leadership Modeling • Leadership Prioritization of Student Needs • Transition to Formal Faculty Loading • Faculty Deloading and Incentive Systems • Faculty Capability Building (Workshops, Training) • Remedial Training for Non-Research Faculty • Expert-Led Proposal Development • Provision of Technical Assistance • Management of Research Outputs by Dedicated Staff • Motivation through Financial Incentives • Cash Incentives for Publication • Non-Monetary Student Encouragement • Portable Professional Recognition • Integration of Research into Promotion Systems
Integrated Process Standardization in Research Governance	• Procedural Alignment with Manuals • Governance of Sequential Approval Processes • Integration of Centralized and Decentralized Systems • Cross-Unit Synchronization of Research Processes • Peer Critique for Alignment • Standardization of Procedures Across Units • System-Wide Procedural Consistency
Compliance-Driven Policy Formulation	• Compliance with mandates • Accreditation standards • Policy-centric foundations • Stakeholder consultation • Streamlining frameworks • Development of R&D manuals • Reactive audit amendments.
Performance Accountability	• Proposal evaluation • Budget accountability • Progress tracking

	• Field monitoring (risk management) • Continuous output monitoring of evaluative forums • Utilization assessment • Performance-based rewards • Authorship-based restrictions • Audit-based corrective actions.
Multi-Source Resource Mobilization System for Sustainable Research Development	• LGU-Driven Financial Sustainability • Local Government Support for Research Technologies • Institutional Budgeting for Research Sustainability • External Sponsorship Supplementation • Strategic Industry Partnerships • Inter-Institutional Laboratory Resource Sharing • Network-Driven Resource Optimization • Institutionalization of Research Ownership

DISCUSSION

Management Practices of Research and Development of Local Colleges in the Davao Region

The findings reveal that management practices of research and development of local colleges in the Davao Region are characterized by the consistent use of strategic direction in LUCS research and development, centralized bureaucratic research governance structure, leadership-driven capacity building system, integrated process standardization in research governance, compliance-driven policy formulation, performance accountability, and multi-source resource mobilization system for sustainable research development among the case units, particularly KNP, MONCAST, SAMAL-PH, KCAST, MOCAST, STCAST, and MDOC. These themes indicate that research and development management is guided by strategic planning, organized governance, leadership support, standardized processes, policy compliance, accountability, and sustainable resource management to strengthen institutional research outcomes.

The findings revealed that Strategic Direction in Research and Development among the case units is reflected in several institutional practices that shape research governance and implementation. The first one is external benchmarking for framework development enables institutions to adopt and adapt research models, policies, and best practices to improve institutional systems and strengthen research capacity. In addition, the integration of regional research agendas ensures that research initiatives remain responsive to local concerns and regional developmental priorities, while alignment with institutional research priorities maintains consistency between research activities and organizational goals. Moreover, centralized research agenda formulation promotes coordination, uniformity, and clear direction in determining institutional research priorities. Similarly, gradual institutional policy direction on research output strengthens research productivity by reinforcing expectations for scholarly engagement and continuous improvement. Furthermore, strategic fiscal investment prioritization ensures the effective allocation of resources to research initiatives with institutional significance, while financial planning through EIP alignment supports sustainable budgeting and the long-term implementation of research programs. Likewise, continuity of management cycles reinforces consistent planning, monitoring, and evaluation of research initiatives, whereas executive scrutiny of strategic planning strengthens administrative oversight and accountability. Finally, dependency on the research head's presentation for budget approval highlights the importance of institutional leadership and strategic justification in securing support for research and development activities.

Recent published studies support the present findings by emphasizing that strategic direction, governance systems, leadership, and financial planning are essential in strengthening research and development practices in higher education institutions. Strategic planning and institutional direction have been identified as important mechanisms for improving organizational effectiveness, resource utilization, and sustainability of research initiatives in higher education institutions (Kenno et al., 2021). Likewise, institutional benchmarking and the alignment of research priorities with broader developmental goals contribute to improved research quality, innovation, and institutional responsiveness to societal and regional demands (Ocampo et al., 2022). In addition, Truong et al. (2021) emphasized that structured governance systems and centralized planning mechanisms strengthen coordination, accountability, and efficiency in implementing research-related goals and institutional policies, contributing to stronger organizational management of research activities. Similarly, leadership engagement, policy-driven management, and performance monitoring were identified as significant factors influencing research productivity and institutional improvement, as Nadeem (2025) explained that active leadership support and strategic oversight help cultivate a stronger research culture and sustain institutional research performance.

The findings of the study confirm the relevance of Fayol's Theory of Management, particularly the function of planning, in understanding the strategic direction of research and development among local colleges in the Davao Region. The results show

that research governance is carried out through systematic planning practices such as external benchmarking, alignment of regional and institutional research priorities, centralized agenda formulation, policy direction on research output, strategic fiscal allocation, and financial planning to ensure organized and goal-oriented implementation of research initiatives. The continuity of management cycles, executive review of strategic plans, and leadership involvement in budget approval further demonstrate how planning supports coordination, decision-making, and accountability in institutional research management. These findings indicate that effective research and development rely on deliberate planning processes that guide priorities, allocate resources, anticipate institutional needs, and sustain research productivity, thereby affirming Fayol's view that planning is a fundamental management function necessary for achieving organizational goals and ensuring institutional effectiveness.

The findings are also aligned with national policy directives issued by the Commission on Higher Education (CHED), which emphasize the importance of strategic planning, research prioritization, and institutional accountability in higher education institutions. CHED Memorandum Order (CMO) No. 52, s. 2016 highlights the Harmonized National Research and Development Agenda, which encourages Higher Education Institutions (HEIs) to align their research priorities with national and regional development goals, thereby supporting the integration of regional research agendas and institutional research alignment observed in the study. In addition, CHED Memorandum Order (CMO) No. 15, s. 2019 on Policies, Standards and Guidelines (PSGs) for Graduate Programs strengthens research capability through structured governance, output-based research requirements, and quality assurance mechanisms that reflect the centralized research agenda formulation and performance accountability practices identified among the case units. Furthermore, CHED's Higher Education Development Fund (HEDF) guidelines and related issuances reinforce strategic fiscal planning, research funding prioritization, and institutional resource allocation systems, which correspond to the financial planning and budget prioritization practices found in the study. These national directives collectively confirm that research and development management in local colleges is not only institution-driven but also policy-driven, ensuring alignment with CHED's mandate for quality, relevance, and sustainable research development in Philippine higher education institutions.

The participants emphasized that research development in local colleges is guided by a structured and goal-oriented system that ensures effective planning, coordination, and alignment with institutional and regional priorities. They highlighted that institutions strengthen research quality and competitiveness by adopting effective practices from other organizations while directing research initiatives toward community and regional development needs. Participants further noted that research governance provides clear direction, continuity, and consistency in program implementation, supported by policy enhancement, strategic resource allocation, and the integration of research funding into institutional planning processes. They also stressed that research sustainability is reinforced through continuous monitoring, evaluation, administrative oversight, and leadership involvement in budget approval. Consistent with these findings, the researcher observed that strategic planning serves as a critical foundation for effective research and development management, enabling local colleges to sustain research activities, enhance faculty participation, strengthen institutional accountability, and foster a systematic and goal-oriented research culture. The researcher further noted that the establishment of research agendas, operational manuals, and governance structures reflects the growing recognition of long-term planning as essential to institutional credibility, academic productivity, community development, and educational advancement in the Davao Region.

Moreover, the findings revealed that the Centralized Bureaucratic Research Governance Structure among the case units is manifested through several institutional mechanisms that organize research administration and decision-making processes. Initially, the historical centralized leadership model established a governance tradition where major research directions and institutional decisions are concentrated within the higher administration. At the same time, the formal integration of research into the institutional structure strengthened the legitimacy and operational function of research offices within the organization. Furthermore, the implementation of a three-tier management structure facilitated systematic coordination among different administrative levels involved in research governance and implementation. Correspondingly, the centralized executive oversight system reinforced administrative control and ensured that research activities remained aligned with institutional mandates and priorities. In addition, structural oversight through research divisions enhanced monitoring, supervision, and policy compliance in the conduct of research programs. Likewise, structural coordination through administrative councils promoted collaboration and collective decision-making across institutional units involved in research management. Moreover, the dual approval mechanisms involving both the governing board and local government units ensured accountability and institutional authorization before research-related initiatives and expenditures were implemented. Finally, the allocation of research budgets reflected the centralized nature of fiscal planning, where funding decisions are carefully reviewed and approved within the established bureaucratic structure.

Recent published studies support the present findings by emphasizing that centralized governance arrangements and bureaucratic organizational systems remain common approaches in managing higher education institutions and their research functions. Studies explained that centralized leadership structures allow higher administration to maintain authority over institutional planning, policy direction, and research implementation, ensuring organizational control and consistency in institutional operations (Lund et al., 2024). Likewise, the formal integration of research units and the implementation of tiered governance systems strengthen administrative coordination, clarify institutional responsibilities, and improve organizational efficiency in research management (Pillai et al., 2021; Veiga, 2020). Similarly, executive oversight systems, specialized research divisions, and collaborative

governing mechanisms reinforce monitoring practices, policy compliance, transparency, and accountability in institutional decision-making processes (Beerkens, 2022; Lin & Yang, 2021). Moreover, centralized budget allocation and fiscal control systems support the sustainability of research operations through structured financial oversight and organized resource management, affirming the significant role of centralized governance in maintaining stable and effective research management systems (Kenno et al., 2021).These studies collectively affirm that centralized governance structures play a significant role in maintaining institutional coordination, accountability, and stability in research management systems.

The findings and supporting literature strongly underline the relevance of Henri Fayol's Theory of Management, particularly the function of organizing, in explaining the centralized bureaucratic research governance structure observed among the case units. Fayol emphasized that organizing involves establishing formal structures, defining authority and responsibilities, coordinating institutional functions, and arranging resources systematically to achieve organizational objectives. The presence of centralized leadership models, tiered management systems, executive oversight mechanisms, research divisions, and administrative councils reflects the application of organizing principles through clearly defined hierarchies, division of functions, and coordinated administrative processes. Likewise, the implementation of dual approval systems and centralized budget allocation demonstrates structured authority, accountability, and orderly distribution of institutional resources, which are essential elements of Fayol's organizing function. Therefore, the findings confirm that organized administrative structures and coordinated governance mechanisms are necessary in ensuring effective research management, institutional stability, and efficient implementation of research and development initiatives in higher education institutions.

The findings are likewise aligned with national policy directives issued by the Commission on Higher Education, which emphasize the importance of organized governance systems, administrative accountability, and structured research management in higher education institutions. CHED Memorandum Order (CMO) No. 46, s. 2012 on the Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education highlights the necessity of effective governance, leadership structures, and accountability mechanisms to ensure institutional quality and organizational efficiency, reflecting the centralized executive oversight and tiered management structures observed in the study. Likewise, CHED Memorandum Order (CMO) No. 52, s. 2016 on the Harmonized National Research and Development Agenda encourages higher education institutions to establish coordinated research systems and formal organizational mechanisms that align institutional research activities with national and regional development priorities. Furthermore, CHED policies related to institutional sustainability and resource management emphasize proper fiscal planning, accountable budget allocation, and administrative coordination in implementing research programs, which correspond to the centralized budget allocation and dual approval mechanisms identified among the case units. These national directives collectively affirm that centralized bureaucratic governance structures are essential in maintaining coordination, accountability, policy compliance, and effective research management systems within higher education institutions.

The participants viewed the centralized bureaucratic research governance structure as a necessary system that promotes institutional order, accountability, and coordination in the implementation of research and development activities. They emphasized that centralized leadership, executive oversight, formal administrative procedures, research divisions, administrative councils, and dual approval mechanisms help ensure policy compliance, transparency, effective monitoring, and alignment of research programs with institutional priorities. Consistent with these perspectives, the researcher observed that centralized governance serves as both a strength and a challenge in managing research and development within local colleges. The researcher noted that clearly defined organizational hierarchies, structured oversight systems, and centralized decision-making processes contribute to institutional stability, accountability, and consistency while ensuring that research activities remain aligned with available resources and regulatory requirements. At the same time, the researcher recognized that multiple layers of approval and bureaucratic procedures may reduce operational flexibility and delay the implementation of research initiatives. Overall, both the participants and the researcher highlighted that while centralized governance strengthens institutional control and coordination, a balance between administrative structure, efficiency, and responsiveness is essential for effective research management.

In addition, the findings revealed that the Leadership-Driven Capacity Building System among the case units is demonstrated through various institutional practices that strengthen research capability, faculty development, and research engagement within the organization. Initially, exemplary leadership modeling encouraged faculty members and students to actively participate in research activities by demonstrating commitment and support toward research culture and academic productivity, thereby establishing a strong institutional climate that values scholarly work. Furthermore, leadership prioritization of student needs ensured that institutional programs remained responsive to academic growth and development, particularly in providing relevant research opportunities aligned with learner outcomes. Likewise, the implementation of faculty loading and deloading systems, together with incentive mechanisms, provided faculty members with adequate time and motivation to engage in research activities, reducing workload pressure and improving research productivity. Moreover, capacity-building interventions such as workshops, training programs, expert-led proposal development, and technical assistance enhanced research competence and improved the quality of outputs by addressing skill gaps and strengthening methodological capabilities. Finally, the integration of financial and non-financial incentives, along with linking research performance to promotion systems, strengthened motivation and sustained research engagement among faculty and students by reinforcing research as a key component of professional growth and institutional advancement.

Recent published studies support the present findings by emphasizing that leadership plays a critical role in strengthening institutional capacity for research development through motivation, structural support, and capability-building initiatives in higher education institutions. Effective leadership practices, such as role modeling and prioritization of institutional goals, have been shown to foster a strong research culture and encourage active participation among faculty and students in scholarly activities (Andrade, 2024). Likewise, structured workload management systems, including faculty loading and deloading arrangements, have been identified as essential strategies for improving research productivity by providing faculty with sufficient time and reduced teaching burdens to engage in research activities (Choi, 2026). In addition, capacity-building interventions such as training programs, mentorship, and technical assistance have been widely recognized as effective mechanisms for enhancing research competence, improving methodological skills, and increasing the quality of academic outputs (Thu et al., 2025). Furthermore, Rambe, (2024) emphasized that incentive-based systems, both financial and non-financial, as well as promotion-linked research performance frameworks, have been found to significantly increase motivation, productivity, and long-term engagement in research among academic staff. These studies collectively affirm that leadership-driven capacity building systems are vital in sustaining research engagement, enhancing faculty development, and strengthening institutional research performance.

The findings and supporting literature strongly reflect the relevance of Henri Fayol's Theory of Management, particularly the function of commanding, in explaining the Leadership-Driven Capacity Building System observed among the case units. Fayol's commanding function emphasizes directing, guiding, motivating, and supervising employees to ensure that organizational goals are effectively achieved through leadership influence and proper instruction. The presence of exemplary leadership modeling, prioritization of student needs, and expert-led guidance demonstrates how leaders actively direct and influence faculty and students toward research engagement and institutional productivity. Likewise, faculty loading systems, capacity-building programs, and technical assistance reflect leadership efforts in issuing clear direction, providing support, and ensuring that personnel are properly guided in performing research-related tasks. Moreover, the use of incentives and promotion-linked research performance highlights the motivating aspect of commanding, where leadership encourages higher performance through rewards and recognition systems. Therefore, the findings confirm that effective leadership commanding is essential in developing research capacity, strengthening faculty performance, and sustaining an active research culture within higher education institutions.

The findings are likewise aligned with national policy directives issued by the Commission on Higher Education, which emphasize the importance of strengthening leadership-driven capacity building systems in higher education institutions. CHED Memorandum Order (CMO) No. 52, s. 2016 or the Harmonized National Research and Development Agenda supports leadership roles in guiding institutional priorities and ensuring that research and development initiatives are strategically directed toward national goals. In addition, CHED policies on faculty development and quality assurance, including CMO No. 46, s. 2012, highlight the role of institutional leadership in managing workload distribution, professional development, and performance-based systems, which align with leadership actions that support faculty loading, deloading, and incentive mechanisms. Furthermore, CHED Memorandum Order (CMO) No. 17, s. 2021 on Development Grants reinforces leadership responsibility in designing, implementing, and sustaining capacity-building programs such as training, mentoring, and institutional strengthening initiatives. These policy directions collectively confirm that leadership-driven capacity building is a critical institutional function in promoting research engagement, enhancing faculty capability, and sustaining an effective research culture in higher education institutions.

The participants perceived the Leadership-Driven Capacity Building System as a valuable institutional approach that enhances research capability, confidence, and professional growth among faculty and students. They emphasized that leadership modeling provides direction and inspiration, encouraging active engagement in research and strengthening academic performance. Participants also noted that leadership prioritization of stakeholder needs ensures that research programs and opportunities remain relevant, supportive, and responsive to academic development. Furthermore, they highlighted that faculty loading and deloading systems, incentive mechanisms, training programs, workshops, expert guidance, and technical assistance help reduce workload constraints, improve research competence, and enhance the quality of research outputs. Consistent with these perspectives, the researcher observed that leadership-driven capacity building serves as a crucial mechanism for strengthening research culture, faculty development, and institutional productivity within local colleges. The researcher noted that leadership modeling, stakeholder-centered initiatives, workload management strategies, and capacity-building programs create favorable conditions for research engagement while fostering continuous professional growth and improving research performance. Overall, both the participants and the researcher recognized that leadership-driven capacity building is essential in sustaining a productive research environment and promoting continuous institutional and academic development.

Furthermore, the findings revealed that the Integrated Process Standardization in Research Governance among the case units is manifested through institutional mechanisms that ensure uniformity, coordination, and consistency in research administration and implementation. Initially, procedural alignment with institutional manuals ensures that research activities follow established guidelines and standardized steps, thereby promoting compliance and clarity in research processes. At the same time, the governance of sequential approval processes regulates the flow of research proposals and outputs through clearly defined stages of review and authorization, ensuring order and accountability in decision-making. Furthermore, the integration of centralized and decentralized systems allows for both institutional control and unit-level flexibility, creating a balanced approach to research governance. Correspondingly, cross-unit synchronization of research processes enhances coordination among different offices

and departments, ensuring that research activities are implemented in a harmonized manner. In addition, peer critique for alignment strengthens the quality of research outputs by allowing systematic review and feedback before final approval. Likewise, the standardization of procedures across units ensures that all departments follow consistent research protocols, reducing variation in implementation practices. Finally, system-wide procedural consistency reinforces institutional coherence in research governance, ensuring that all research activities are conducted in an organized, predictable, and quality-assured manner across the institution.

Recent published studies support the present findings by emphasizing that integrated process standardization is essential in strengthening efficiency, quality assurance, and accountability in research governance within higher education institutions. Shen et al. (2020) explained that standardized procedures and clearly defined institutional protocols improve consistency in research implementation, reduce procedural variation, and ensure compliance with organizational policies and regulatory requirements. Likewise, Fakunle and Higson (2021) noted that structured approval systems and sequential review processes enhance quality control, transparency, and accountability by ensuring that research outputs undergo systematic evaluation before final approval. In addition, Krücken (2024) highlighted that the integration of centralized and decentralized governance structures promotes both institutional oversight and operational flexibility, allowing universities to maintain coherence while accommodating unit-level initiatives. Furthermore, Shin and Ko (2024) found that cross-unit coordination and peer review mechanisms strengthen research quality and alignment by fostering collaboration, critical evaluation, and shared standards across academic departments. These findings collectively affirm that process standardization plays a vital role in ensuring system-wide consistency, improving research quality, and strengthening governance efficiency in higher education institutions.

The findings on Integrated Process Standardization in Research Governance are strongly aligned with Henri Fayol's Theory of Management, particularly the function of coordinating. Fayol emphasized that coordinating involves harmonizing all organizational activities to ensure unity, consistency, and efficiency in achieving institutional goals. The presence of procedural alignment with manuals, sequential approval processes, and standardized research protocols reflects coordination through clearly defined rules that synchronize activities across different units. Likewise, cross-unit synchronization and the integration of centralized and decentralized systems demonstrate Fayol's principle of ensuring that diverse organizational components work together in a unified and orderly manner. In addition, peer critique and system-wide procedural consistency highlight continuous coordination through communication, feedback, and alignment of outputs to institutional standards. Therefore, the findings confirm that effective coordination is essential in maintaining harmonized research processes, ensuring quality assurance, and achieving consistent governance across higher education institutions.

The findings on Integrated Process Standardization in Research Governance are aligned with policy directives issued by the Commission on Higher Education, particularly CHED Memorandum Order (CMO) No. 46, s. 2012 on Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education. This policy emphasizes the importance of standardized academic and research processes, structured quality assurance systems, and compliance with institutional manuals to ensure consistency, accountability, and excellence in higher education institutions. It supports the procedural alignment with institutional guidelines, sequential approval systems, and system-wide consistency observed in the findings. In addition, CHED Memorandum Order (CMO) No. 15, s. 2019 reinforces the need for structured research processes, peer evaluation, and quality control mechanisms in graduate and research programs, which correspond to cross-unit synchronization and peer critique practices identified in the study. Furthermore, these CHED policies highlight the integration of centralized standards with institutional flexibility to ensure both governance control and operational effectiveness in research management. Overall, these policy directives confirm that standardized and coordinated research governance systems are essential in maintaining quality, efficiency, and accountability in higher education institutions.

The participants perceived Integrated Process Standardization in Research Governance as a necessary system that promotes clarity, consistency, and efficiency in the conduct of research activities within the institution. They emphasized that standardized procedures, institutional manuals, and sequential approval processes provide clear guidance, reduce procedural errors, strengthen accountability, and ensure that research outputs are thoroughly reviewed before final approval. Participants also highlighted that cross-unit coordination and peer critique mechanisms enhance collaboration and improve research quality through constructive feedback and alignment with institutional standards. Consistent with these perspectives, the researcher observed that process standardization plays a vital role in ensuring efficiency, consistency, and accountability in institutional research management. The researcher noted that procedural alignment with institutional manuals helps minimize confusion and variations in implementation, while sequential approval processes reinforce organizational discipline and quality assurance. Furthermore, the researcher recognized that cross-unit synchronization and peer critique mechanisms strengthen collaboration and contribute to the continuous improvement of research outputs. Overall, both the participants and the researcher viewed process standardization as essential in establishing a well-coordinated, transparent, reliable, and high-quality research governance system within higher education institutions.

Additionally, the findings revealed that the Compliance-Driven Policy Formulation among the case units is manifested through institutional mechanisms that ensure adherence to external mandates, accreditation requirements, and internal regulatory standards in research governance. Initially, compliance with mandates from governing bodies guides the overall direction of policy

development, ensuring that institutional practices remain aligned with national and sectoral regulations. At the same time, accreditation standards serve as a benchmark for quality assurance, compelling institutions to design policies that meet required performance indicators and evaluation criteria. Furthermore, policy-centric foundations provide the structural basis for developing research and development guidelines that are consistent, formalized, and systematically implemented. Correspondingly, stakeholder consultation ensures that policy formulation is inclusive, incorporating the perspectives of faculty, administrators, and other relevant actors in the institution. In addition, streamlining frameworks enhance efficiency by simplifying procedures and reducing redundancies in policy implementation. Likewise, the development of research and development manuals codifies institutional rules, standardizing practices and providing clear operational guidance. Finally, reactive audit amendments reflect continuous policy improvement, where adjustments are made in response to audit findings and compliance evaluations to strengthen institutional accountability and governance effectiveness.

Recent published studies support the present findings by emphasizing that compliance-driven policy formulation is a critical mechanism in ensuring accountability, quality assurance, and standardization in higher education governance. Licaros and Callo (2026) highlighted that adherence to national mandates and regulatory frameworks strengthens institutional legitimacy and ensures alignment with government expectations and sectoral development goals. Likewise, Duque (2022) noted that accreditation systems function as strong drivers of policy development by requiring institutions to establish measurable standards, performance indicators, and continuous improvement mechanisms to meet quality assurance requirements. In addition, Holcombe et al. (2023) emphasized that stakeholder consultation processes improve policy relevance and effectiveness by integrating diverse perspectives, enhancing transparency, and strengthening institutional ownership of policy outcomes. Furthermore, Mendoza and Feldman (2025) found that standardized manuals, streamlined frameworks, and codified procedures enhance organizational efficiency by reducing ambiguity and ensuring consistent implementation of institutional policies. Lastly, Abou Khreibi (2024) explained that audit-driven policy revisions support continuous improvement by enabling institutions to address compliance gaps and strengthen governance systems based on evaluation findings. Collectively, these studies affirm that compliance-driven policy formulation ensures systematic, accountable, and quality-oriented governance in higher education institutions.

The findings on Compliance-Driven Policy Formulation are strongly aligned with Henri Fayol's Theory of Management, particularly the function of controlling. Fayol's controlling function emphasizes ensuring that organizational activities are carried out in accordance with established plans, standards, and regulations, and that corrective actions are implemented when deviations occur. The presence of compliance with mandates, accreditation standards, and policy-centric frameworks reflects a controlling mechanism where institutions set clear benchmarks and ensure adherence to external and internal requirements. Likewise, stakeholder consultation and the development of standardized manuals support monitoring and evaluation processes that guide consistent policy implementation across the organization. Furthermore, reactive audit amendments demonstrate the corrective aspect of controlling, where policies are revised based on evaluation results to address gaps and improve institutional performance. Therefore, the findings confirm that controlling is essential in ensuring compliance, maintaining quality standards, and strengthening accountability in research governance and policy formulation within higher education institutions.

The findings on Compliance-Driven Policy Formulation are also aligned with national regulatory issuances from the Commission on Higher Education, particularly CHED Memorandum Order (CMO) No. 46, s. 2012, which emphasizes quality assurance systems, standardized procedures, and institutional compliance with established academic and research standards. This supports the study's findings on accreditation standards, streamlining frameworks, and the development of manuals that ensure consistent and quality-driven policy implementation in higher education institutions. In addition, CHED Memorandum Order (CMO) No. 15, s. 2019 reinforces compliance-based governance in graduate and research programs by requiring institutions to adhere to performance standards, structured research processes, and continuous quality improvement mechanisms. This aligns with stakeholder consultation, policy-centric formulation, and audit-based revisions that ensure policies remain responsive, accountable, and aligned with institutional and national development goals. Together, these CHED issuances confirm that compliance-driven policy formulation is a mandated governance approach that strengthens quality assurance, accountability, and standardization in higher education institutions.

The participants perceived Compliance-Driven Policy Formulation as a necessary institutional mechanism that promotes clarity, order, and accountability in research governance and decision-making processes. They emphasized that adherence to mandates and accreditation standards provides clear direction for policy implementation, while standardized manuals and streamlined frameworks ensure consistency, reduce confusion, and facilitate the effective application of policies across institutional units. Participants also highlighted that stakeholder consultation enhances policy relevance by incorporating the perspectives of those directly involved in research activities, making policies more responsive and acceptable. Consistent with these perspectives, the researcher observed that compliance-driven policy formulation plays a crucial role in maintaining structured, accountable, and regulation-aligned research governance. The researcher noted that adherence to external requirements, together with standardized manuals, codified procedures, and streamlined frameworks, strengthens policy consistency and minimizes variations in implementation. Furthermore, the researcher recognized that stakeholder consultation and audit-based revisions contribute to policy relevance, quality assurance, and continuous institutional improvement. Overall, both the participants and the researcher viewed compliance-driven policy formulation as essential in promoting institutional discipline, transparency, accountability, and the continuous enhancement of research governance.

Moreover, the findings revealed that Performance Accountability among the case units is manifested through institutional mechanisms that ensure responsibility, transparency, and measurable outcomes in research governance and implementation. Initially, proposal evaluation serves as the entry point of accountability by ensuring that research initiatives are assessed based on quality, relevance, and feasibility before approval. At the same time, budget accountability mechanisms ensure that allocated funds are properly utilized, monitored, and aligned with approved research activities. Furthermore, progress tracking systems allow institutions to continuously monitor the status of research implementation, ensuring that timelines and deliverables are properly achieved. Correspondingly, field monitoring and risk management practices strengthen oversight by identifying potential challenges during actual research execution and ensuring timely intervention. In addition, continuous output monitoring through evaluative forums provides regular feedback on research performance, enabling ongoing assessment and improvement. Likewise, utilization assessment ensures that research outputs are effectively applied and contribute to institutional or community needs. Moreover, performance-based rewards promote productivity by recognizing and incentivizing high-quality research outputs, while authorship-based restrictions ensure ethical compliance and proper attribution of scholarly work. Finally, audit-based corrective actions reinforce institutional accountability by addressing gaps and implementing necessary improvements based on evaluation findings.

Recent published studies support the findings by emphasizing that performance accountability is a critical mechanism in ensuring transparency, efficiency, and quality in research governance within higher education institutions. Studies highlight that proposal evaluation processes enhance decision-making quality by ensuring that only relevant, feasible, and high-impact research projects are approved for implementation (Radushinsky et. al, 2024). Likewise, budget accountability and financial monitoring systems strengthen institutional control by ensuring proper utilization of resources and reducing inefficiencies in research funding allocation (Hussein et. al, 2024). In addition, progress tracking and field monitoring have been identified as essential tools for risk management and timely intervention, allowing institutions to address implementation gaps and ensure successful completion of research outputs (Samim & Noori, 2025). Furthermore, performance-based rewards and authorship policies promote ethical research practices, motivation, and fair recognition of contributions, thereby improving overall research productivity and integrity (Banerjee et. al, 2022). Lastly, audit-based corrective actions reinforce continuous improvement by enabling institutions to identify weaknesses and implement necessary policy and operational adjustments based on evaluative findings (Smith, 2023). Collectively, these studies affirm that performance accountability systems are essential in maintaining high standards, ethical compliance, and effective research governance in higher education institutions.

The findings on Performance Accountability are strongly aligned with Henri Fayol's Theory of Management, particularly the function of controlling. Fayol's controlling function emphasizes measuring performance, comparing results with planned objectives, and taking corrective action to ensure that organizational goals are achieved effectively. The presence of proposal evaluation and budget accountability reflects the control process of setting standards and ensuring that inputs and resources are properly assessed before implementation. Likewise, progress tracking, field monitoring, and continuous output evaluation demonstrate ongoing supervision and comparison of actual performance against expected targets. In addition, utilization assessment and evaluative forums highlight systematic monitoring to ensure that research outputs are relevant, effective, and aligned with institutional goals. Furthermore, performance-based rewards, authorship restrictions, and audit-based corrective actions represent corrective control mechanisms that reinforce accountability, ethical compliance, and performance improvement. Therefore, the findings confirm that controlling is essential in maintaining discipline, ensuring quality outcomes, and strengthening accountability in research governance and institutional performance systems.

The findings on Performance Accountability are also aligned with policy directives issued by the Commission on Higher Education, particularly CHED Memorandum Order (CMO) No. 46, s. 2012, which emphasizes quality assurance systems, performance monitoring, and compliance with institutional standards to ensure effective higher education governance. This supports the study's findings on proposal evaluation, progress tracking, and evaluative forums as mechanisms that strengthen accountability and ensure that research activities meet required quality benchmarks. In addition, CHED Memorandum Order (CMO) No. 15, s. 2019 reinforces performance-based research management by promoting output-based evaluation, ethical authorship practices, and continuous monitoring of research productivity in graduate and research programs. This aligns with the utilization assessment, authorship restrictions, and performance-based rewards identified in the findings, which ensure fair recognition and responsible research conduct. Furthermore, CHED guidelines on research governance emphasize audit-based evaluation and corrective mechanisms, which correspond to the study's findings on audit-driven corrective actions that enhance transparency, accountability, and continuous improvement in institutional research systems. These policy directives collectively affirm that performance accountability is a mandated governance mechanism essential in ensuring quality, ethical compliance, and effective research management in higher education institutions.

The participants perceived Performance Accountability as an essential system that promotes fairness, transparency, and responsibility in the implementation of research activities within the institution. They emphasized that proposal evaluation, budget accountability, and progress tracking help ensure that research projects are carefully assessed, adequately supported, and consistently monitored, thereby improving the quality and effectiveness of research outputs. Participants also highlighted that field monitoring, evaluative forums, and utilization assessments strengthen feedback mechanisms and provide opportunities for continuous improvement based on actual performance results. In addition, they recognized that performance-based rewards and

authorship policies encourage ethical conduct, fairness, integrity, and sustained research productivity. Consistent with these perspectives, the researcher observed that performance accountability serves as a vital mechanism for strengthening transparency, efficiency, and responsibility in research governance. The researcher noted that proposal evaluation, budget accountability, progress tracking, and field monitoring contribute to sound decision-making, effective resource management, and the timely resolution of implementation issues. Furthermore, the researcher recognized that utilization assessments, performance-based incentives, and authorship restrictions support ethical research practices, motivation, and proper recognition of contributions. Overall, both the participants and the researcher viewed performance accountability as essential in ensuring high-quality research outputs, institutional discipline, ethical governance, and the continuous improvement of research management systems.

Lastly, the findings revealed that the Multi-Source Resource Mobilization System for Sustainable Research Development among the case units is manifested through various institutional mechanisms that ensure financial stability, resource optimization, and long-term sustainability of research initiatives. Initially, LGU-driven financial sustainability provides essential support by enabling local government units to supplement institutional funding and strengthen research operations. At the same time, local government support for research technologies enhances access to equipment, tools, and innovation resources needed for effective research implementation. Furthermore, institutional budgeting for research sustainability ensures that internal financial planning allocates dedicated and continuous funding for research development activities. Correspondingly, external sponsorship supplementation broadens funding opportunities by engaging external agencies and organizations to support research projects. In addition, strategic industry partnerships strengthen collaboration between institutions and the private sector, promoting resource sharing, innovation, and applied research development. Likewise, inter-institutional laboratory resource sharing allows institutions to maximize available facilities and equipment through collaborative arrangements. Moreover, network-driven resource optimization enhances efficiency by leveraging partnerships and linkages to reduce duplication and improve access to research resources. Finally, the institutionalization of research ownership strengthens commitment and accountability by embedding research responsibility within the institutional culture, ensuring sustainability and long-term engagement in research development initiatives.

Recent literature further reinforces the present findings by highlighting that multi-source resource mobilization remains a vital strategy for sustaining research development and strengthening institutional resilience in higher education institutions. Suprun (2026) emphasized that local government support significantly contributes to financial sustainability and improves institutional access to research infrastructure and technological resources, particularly among locally funded colleges with limited internal funding capacity. Similarly, Salmi et al. (2025) explained that institutional budgeting and diversified funding mechanisms are essential in sustaining continuous research operations and minimizing overreliance on single-source financial support. In addition, Püttmann (2025) noted that external sponsorships and industry partnerships strengthen innovation and applied research by providing financial assistance, technical expertise, and collaborative opportunities between academic institutions and external sectors. Furthermore, Visibility (2026) highlighted that inter-institutional collaboration and resource-sharing networks improve operational efficiency by maximizing shared use of laboratories, equipment, and professional expertise across institutions. Lastly, Liu (2025) found that institutional ownership of research promotes long-term sustainability by cultivating organizational commitment, accountability, and the strategic integration of research into institutional priorities. Collectively, these studies affirm that multi-source resource mobilization systems are critical in ensuring sustainable, collaborative, and innovation-driven research development in higher education institutions.

The findings on the Multi-Source Resource Mobilization System for Sustainable Research Development are strongly aligned with Henri Fayol's Theory of Management, particularly the function of coordinating. Fayol emphasized that coordinating involves harmonizing institutional activities, resources, and partnerships to ensure that different organizational units work together effectively toward common objectives. The presence of LGU support, institutional budgeting, external sponsorships, and strategic industry partnerships reflects coordinated efforts among various stakeholders to sustain research development and optimize available resources. Likewise, inter-institutional laboratory sharing and network-driven resource optimization demonstrate collaboration and synchronization across institutions to improve efficiency and maximize research capabilities. Furthermore, the institutionalization of research ownership highlights the importance of aligning organizational members and resources toward a shared commitment to research sustainability and productivity. Therefore, the findings confirm that coordination is essential in integrating financial, institutional, and external support systems to maintain sustainable and effective research development in higher education institutions.

The findings on the Multi-Source Resource Mobilization System for Sustainable Research Development are aligned with national policy directives issued by the Commission on Higher Education, particularly CHED Memorandum Order (CMO) No. 52, s. 2016 or the Harmonized National Research and Development Agenda, which encourages higher education institutions to establish collaborative partnerships and mobilize resources in support of sustainable research development aligned with national priorities. This corresponds to the study's findings on strategic industry partnerships, external sponsorship supplementation, and network-driven resource optimization that strengthen institutional research capacity through multi-sectoral collaboration. In addition, CHED Memorandum Order (CMO) No. 17, s. 2021 on Development Grants supports institutional initiatives for capability enhancement, infrastructure development, and research sustainability through funding assistance and resource-sharing mechanisms. This aligns with the findings on LGU-driven financial sustainability, institutional budgeting for research, and inter-

institutional laboratory resource sharing, which promote efficient utilization of financial and technological resources. Furthermore, CHED policies on institutional development emphasize the importance of collaborative governance, financial sustainability, and research ownership in strengthening long-term research productivity and innovation in higher education institutions. These policy directives collectively affirm that multi-source resource mobilization systems are essential in sustaining research development and institutional resilience in higher education institutions.

The participants perceived the Multi-Source Resource Mobilization System for Sustainable Research Development as an important institutional strategy that strengthens the continuity and effectiveness of research activities. They emphasized that support from local government units, institutional funding, external sponsors, and industry partners provides essential resources that enable the implementation of research projects despite financial constraints. Participants also highlighted that partnerships, resource-sharing mechanisms, and collaborative arrangements enhance access to research technologies, laboratory facilities, technical expertise, and learning opportunities, thereby improving research quality and productivity. Furthermore, they noted that institutional support systems help reduce operational challenges and promote the efficient utilization of available resources. Consistent with these perspectives, the researcher observed that multi-source resource mobilization plays a crucial role in sustaining research development and strengthening institutional capacity. The researcher noted that diversified funding sources, collaborative partnerships, and inter-institutional resource-sharing arrangements ensure the continuity of research activities while expanding access to facilities, technologies, and expertise that may not be readily available within a single institution. Additionally, the researcher recognized that the institutionalization of research ownership fosters greater commitment, accountability, and long-term stakeholder engagement in research initiatives. Overall, both the participants and the researcher viewed multi-source resource mobilization as essential in promoting sustainable research development, maximizing available resources, and enhancing institutional resilience and research productivity within higher education institutions.

IMPLICATIONS FOR EDUCATIONAL PRACTICE

The findings underscore a critical transition from ad-hoc, informal research activities to structured, manual-based governance. This shift suggests that for educational practice to thrive in local colleges, there must be an institutionalization of research culture that moves beyond individual leadership-dependency. According to Organizational Learning Theory (Argyris & Schön, 1978), for these institutions to truly evolve, they must engage in *"double-loop learning,"* where they do not just fix immediate resource gaps but re-evaluate the underlying policies and norms that dictate their R&D operations. Educational practitioners must therefore prioritize the creation of stable, codified manuals that survive administrative changes, ensuring that research remains a core institutional pillar rather than a peripheral task.

Furthermore, the prevalence of fiscal instability and resource scarcity highlights the need for a Resource-Based View (RBV) approach to faculty development. In practice, this means that local colleges should not merely demand research output but must strategically develop their *"human capital"* by aligning faculty welfare reforms with research productivity. By professionalizing research roles and providing "*political-cycle-shielded"* incentives, institutions can foster a sense of security among faculty. This ensures that the intellectual assets of the college are nurtured and retained, directly addressing the "workload imbalance" that currently stifles innovation-driven branding.

Lastly, the emphasis on multi-sectoral partnerships suggests that educational practice in local colleges must be outward-looking. Utilizing Social Capital Theory (Bourdieu, 1986), practitioners can view these partnerships not just as funding sources, but as networks of trust and reciprocity that enhance the institution’s community-impact visibility. Integrating community-based research into the curriculum allows students and faculty to engage in real-world problem solving, thereby transforming the college from a localized teaching center into a regional hub for social and economic innovation.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research should prioritize longitudinal studies that track the efficacy of policy codification over multiple political cycles. Since the current findings highlight a significant dependency on Local Government Unit (LGU) leadership, it is vital to investigate how the formalization of research manuals actually influences institutional stability when political leadership changes. Researchers could employ a time-series qualitative approach to observe whether codified governance truly shields the research office from the volatility often associated with local politics in the Davao Region.

Additionally, there is a need for comparative research between LGU-funded local colleges and independently funded private or state universities within the same socio-economic landscape. Such a study would provide deeper insights into the "fiscal instability" identified in this case study. By exploring how different funding models impact innovation-driven branding and academic autonomy, future researchers can provide a more nuanced roadmap for how local colleges can navigate the tension between being an arm of the local government and being an autonomous academic institution.

Finally, further investigation into the innovation-driven branding of local colleges is warranted. While the current results suggest branding is an opportunity for growth, research is needed to determine how this branding affects student recruitment, faculty

retention, and external grant acquisition. A mixed-methods study could quantify the relationship between an institution's community-impact visibility and its ability to secure non-LGU funding, providing empirical evidence to support the strategic shift toward multi-sectoral partnerships.

CONCLUDING REMARKS

The journey of local colleges in the Davao Region represents a compelling narrative of resilience and transformation. Once viewed as peripheral institutions primarily focused on basic instruction, these colleges are now emerging as strategic actors in the regional innovation ecosystem. The transition from manual-based, hierarchical structures to more professionalized and partnership-driven frameworks reflects a maturing academic identity that seeks to balance the demands of local governance with the rigors of scientific inquiry.

However, the path forward is not without significant hurdles. The volatile political landscape and fiscal instability identified in the results serve as a reminder that the sustainability of research in local colleges is intrinsically linked to the stability of their governance. The human element—the faculty and researchers who navigate these challenges—remains the most vital asset. Their ability to innovate despite resource scarcity demonstrates a deep-seated commitment to community-impact visibility that goes beyond mere academic compliance.

In conclusion, the future of research and development in local colleges depends on a collective commitment to institutionalize change. By bridging the gap between LGU-dependency and academic autonomy through robust policy codification and strategic partnerships, these institutions can become beacons of regional development. The findings of this case study should serve as a catalyst for stakeholders to move from ad-hoc support to a structured, shielded, and sustainable research ecosystem that benefits not only the academy but the entire community it serves.

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