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Management Control Systems and Organizational Performance in Public and Private Higher Education Institutions: A Multiple Case Study

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Abstract *— Philippine public and private higher education institutions (HEIs) operate under the same regulator but different governance and financing regimes, yet little is known about how their management control systems (MCS) differ and how those systems relate to performance. Guided by Management Control Theory and Performance Management Theory, this qualitative multiple case study examined MCS implementation and organizational performance in a public state college (Case A) and a private Catholic college (Case B) in the same Philippine province. Twelve purposively selected key informants, six per case, representing top administration, finance, and academic or unit leadership, were interviewed with a semi-structured guide. Data were analyzed through reflexive thematic analysis within each case and cross-case synthesis against four research propositions. Case A operated a formal, compliance-driven system of layered plans, government-regulated budgeting and audit, and documented performance commitments, but multiple control points and handoffs slowed processes. Case B operated a mission-guided, consultative, and revenue-sensitive system in which short communication lines enabled quick decisions, but informal handling, uneven documentation, and weak tracking of corrective actions limited consistency. Both cases tied budget requests to plans, fed monitoring results back into planning, and named an integrated planning, budgeting, and performance information system as the most needed improvement. The propositions on planning formality and financial revenue-sensitivity were supported, the proposition on monitoring was partly supported, and the relationship between MCS and performance was supported as perceived by informants. An integrated MCS framework of five linked elements, adaptable to public and private contexts, is proposed.*

Keywords *— **management control systems, organizational performance, higher education institutions, multiple case study, public and private HEIs, Philippines***

I. INTRODUCTION

Higher education institutions face rising demands to show that they use resources efficiently, attain their goals, and serve students and other stakeholders well. Management control systems (MCS), the formal and informal mechanisms through which managers align the behavior of organizational members with strategy (Merchant & Van der Stede, 2017), are the means by which institutions translate plans into budgets, actions, and measured results. Reviews of management accounting and control in universities show that HEIs adopt control tools mainly in response to external pressure and often implement them incompletely (Vale et al., 2022), and that human resource problems, organizational constraints, and weak technological integration are the most frequently reported challenges to MCS in higher education (Lambovska & Angelova-Stanimirova, 2025).

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The Philippine higher education system is mixed: public state universities and colleges (SUCs) and private HEIs serve the same national goals under the oversight of the Commission on Higher Education (CHED), but they are financed and governed differently. SUCs depend mainly on government appropriations and work within national budgeting, procurement, and Commission on Audit (COA) rules that limit their financial autonomy (Flores, 2025). Private HEIs depend mainly on tuition and have faced enrollment pressure since the Universal Access to Quality Tertiary Education Act took effect, with public HEIs recovering enrollment faster than private HEIs in its first year (Orbeta et al., 2019). Financial sustainability has therefore become a strategic imperative for both sectors (Bayudan-Dacuycuy et al., 2024).

Philippine studies of management control in HEIs have examined each sector separately. A case study of a state university found that procurement, budgeting, and payroll were highly structured and compliant but that adapting to a complex regulatory environment was time-consuming and costly (Nillos & Libo-on, 2024). A survey of private HEIs in Nueva Ecija found internal control systems generally effective but weakened by gaps in monitoring, risk mitigation, and personnel engagement (Alarcon et al., 2026). Other studies have assessed the management capacity of a state college (Anjirani, 2024), proposed a strategic performance measurement system for a state university (Armas et al., 2025), and reviewed the corporatization of SUCs under Republic Act No. 8292 (Carbonell, 2025). No identified study has compared how a public and a private HEI in the same locality design and use management control and how each relates its controls to performance.

This study therefore examined management control systems and organizational performance in a public state college (Case A) and a private college (Case B) in the same Philippine province. Specifically, it described the key informants' profile; examined how each case implemented its MCS in terms of strategic planning, financial management, and performance monitoring and evaluation; examined how organizational performance was manifested in terms of efficiency, goal attainment, service delivery, and institutional effectiveness; identified the similarities and differences between the cases; and proposed an MCS framework applicable to both public and private HEIs.

II. LITERATURE REVIEW

Management Control Systems in Higher Education

Management control has evolved from Anthony's (1965) view of planning and control as a process for ensuring that resources are obtained and used effectively toward a broader view of MCS as a package of planning, cybernetic, reward, administrative, and cultural controls that operate together (Malmi & Brown, 2008). Simons (1995) distinguished the diagnostic use of controls, which monitors outcomes against preset targets, from their interactive use, which engages managers in dialogue about strategic uncertainties. Organizations often use both, and the balance shifts with their stage of development and strategic needs (Lewis et al., 2024; Su et al., 2017). In the public sector, MCS tend to be used to steer the implementation of existing strategy rather than to shape new strategy, and feedback mainly supports single-loop learning (Fitz Verploegh et al., 2025).

In universities, strategic planning and performance management have usually been studied separately, although they are interdependent: planning tools can support performance management, and performance information can reshape strategy (Biondi & Russo, 2022). Performance reporting in public universities is shaped by external isomorphic pressures as well as by organizational and individual factors (Tiron-Tudor et al., 2022), which is consistent with evidence that HEIs adopt control tools in response to external demands (Vale et al., 2022). In the Philippines, government agencies and SUCs operate the Strategic Performance Management System, with office and individual performance commitments (OPCR and IPCR) linked to the performance-based bonus. ₹A process evaluation found that SPMS compliance requirements made most SUCs ineligible for the bonus in 2017 and that information was cascaded mainly through memoranda and orientations (Albert et al., 2021).

Public and Private HEI Contexts in the Philippines

SUCs are governed by boards under Republic Act No. 8292, which granted them expanded fiscal and administrative authority while keeping them within public accountability rules. Corporatization

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has increased revenue generation and reduced dependence on subsidies in some SUCs, but it has also raised concerns about profitability, operational efficiency, and the balance between economic and educational goals; strong governance, financial management, and strategic planning are the conditions for its success (Carbonell, 2025). SUCs remain constrained by limited financial autonomy, bureaucratic processes, and uneven budget allocation (Flores, 2025). Private HEIs, by contrast, are governed by their own boards and are exposed to enrollment and tuition revenue, and many sectarian institutions draw on their religious mission as a source of direction and identity. Internal control in private HEIs is shaped strongly by organizational culture and institutional capacity (Alarcon et al., 2026). These differences suggest that the two sectors may rely on different mixes of administrative, financial, and cultural controls (Malmi & Brown, 2008).

Theoretical Framework and Research Propositions

The study was anchored on Management Control Theory (Anthony & Govindarajan, 2007; Merchant & Van der Stede, 2017) and Performance Management Theory (Armstrong, 2022). Management Control Theory supplied the structural lens, identifying strategic planning, financial management, and performance monitoring as the components of MCS. Performance Management Theory supplied the evaluative lens, explaining how goals, indicators, and feedback translate those systems into efficiency, goal attainment, service delivery, and institutional effectiveness. Following Yin's (2018) logic, four propositions guided the inquiry: (P1) public and private HEIs differ in the formality and centralization of strategic planning; (P2) the private HEI shows greater flexibility and revenue sensitivity in financial management, whereas the public HEI is bound by public fund regulations and audit; (P3) monitoring in the public HEI is more formally documented, whereas monitoring in the private HEI is tied to enrollment, reputation, and stakeholder considerations; and (P4) in both cases, MCS implementation is related to organizational performance.

III. Methodology

Research Design

A qualitative multiple (collective) case study design was used (Yin, 2018). Each institution was treated as a complete case and analyzed on its own terms before the two cases were compared, which allowed analytic rather than statistical generalization.

Cases and Key Informants

The two cases were located in the same province in Central Luzon, Philippines, so that governance structure rather than regional context distinguished them. Case A is a public state college operating under national budgeting, procurement, and COA audit rules. Case B is a private Catholic college governed by its own board. Key informants were selected purposively from three parallel categories in each case: top-level administrators responsible for strategic planning, finance or accounting heads responsible for financial management, and academic or unit heads responsible for performance monitoring. Informants were included if they held primary responsibility for one of these areas, had served in it for at least one year, and gave informed consent; those serving in an officer-in-charge capacity, under investigation, on extended leave, or with a close personal or supervisory relationship with the researcher were excluded. Six informants per case (12 in total), two from each category, were interviewed. This number followed Yin's (2018) replication logic and the principle of information power, under which a focused, theory-guided study with knowledgeable informants requires a comparatively small sample (Malterud et al., 2016), and is consistent with evidence that saturation in homogeneous samples is often reached within a similar number of interviews (Guest et al., 2006).

Instruments

A five-part semi-structured interview guide, developed from the conceptual framework following Kallio et al. (2016), covered the informant profile, strategic planning, financial management, performance monitoring and the four performance indicators, and closing reflective questions on what was distinctive about each institution's management control. A document review checklist listed institutional plans, budget and financial reports, performance and accreditation reports, and organizational charts for triangulation.

The interview guide and checklist were validated by 5 experts in the field of business administrations, management, and prolific

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researchers to ensure coherence and alignment of the instrument with the objective of the study.

Data Collection

After approval from the Graduate School and permission from both institutions, informants received an information sheet and gave written informed consent. Interviews were conducted individually, in person or by secure video conference, and lasted about 45 minutes to one hour. Interviews were audio-recorded with consent, transcribed verbatim, and returned to informants for member checking. Institutional documents were requested from both cases.

Data Analysis

Informant profiles were summarized in a profile matrix. For each case, transcripts and documents were coded and themed through reflexive thematic analysis (Braun & Clarke, 2006) against the three MCS components and four performance indicators, and the number of informants whose coded excerpts carried each theme was recorded. Case A was analyzed completely before Case B. The two within-case analyses were then compared through cross-case synthesis (Yin, 2018), in which each dimension was classified as a similarity, difference, or mixed pattern and interpreted against the four propositions. The convergent and divergent findings informed the proposed MCS framework.

Trustworthiness and Ethical Considerations

Credibility was supported by triangulating interviews with institutional documents and by member checking; transferability by thick description of both cases; dependability by an audit trail of data collection, coding decisions, and analysis; and confirmability by reflexive memoing and debriefing with the adviser and the study's rater (Lincoln & Guba, 1985). Participation was voluntary, informants could withdraw before the analysis was finalized, and institutions and informants were assigned codes. Data were stored in a password-protected repository accessible only to the researcher.

IV. RESULTS AND DISCUSSION

Profile of the Key Informants

Each case contributed six informants: two top-level administrators, two finance or accounting heads, and two academic or unit heads (Table 1). Case B informants had served longer in their current positions (4 to 8 years, $M \approx 6.0$) than Case A informants (1 year 1 month to 7 years, $M \approx 4.3$). Several informants held more than one area of responsibility, particularly in Case A, where four informants each reported financial management and performance monitoring duties.

Table 1: Profile of the Key Informants by Case

Case	*n*	Informant categories	Length of service in position	Areas of responsibility (*n*)
Case A (public state college)	6	2 top-level administrators; 2 finance or accounting heads; 2 academic or unit heads	1 year 1 month to 7 years ($M \approx 4.3$)	Strategic planning (2); financial management (4); performance monitoring (4)
Case B (private college)	6	2 top-level administrators; 2 finance or accounting heads; 2 academic or unit heads	4 to 8 years ($M \approx 6.0$)	Strategic planning (2); financial management (2); performance monitoring (4)

Note. Counts of areas of responsibility exceed six because several informants hold more than one area.

Implementation of the Management Control System

Table 2 summarizes the within-case findings on the three MCS components. In Case A, strategic planning was a formal, layered, top-management-led cycle coordinated by a planning and development unit and bound to the government budget calendar. All six informants cited institutional plans, performance commitments (OPCR and IPCR), the Program Expenditure Classification (PREXC), and CHED and accreditation requirements as their guides, and four described decisions implemented through prioritization and phasing under limited fiscal space. As the Vice President for Academic Affairs put it, “For me, monitoring is useful only when it leads to a decision” (A2). In Case B, planning was a mission-guided, consultative cycle led by the President, Executive Vice President, and College Affairs Officer with board approval. All six

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informants cited plans, budgets, and CHED and quality assurance requirements as guides; three (B1, B2, B5) gave planning examples that began with an external regulatory or recognition requirement, and three (B2, B4, B6) said informal handling needed to be formalized.

Table 2: Within-Case Findings on Management Control System Implementation

Component	Case A: Public state college	Case B: Private college
Strategic planning	Formal, layered planning led by top management and coordinated by a planning unit; plans, OPCR/IPCR commitments, PREXC, and CHED and accreditation requirements guide direction (6 of 6). Decisions are implemented through prioritization and phasing (4 of 6). Constraints: fiscal space, release timing, delayed data, multi-campus coordination.	Mission-guided, consultative planning with board approval through direct contact in a compact structure; plans, budgets, and CHED, PEAC, and quality assurance requirements guide direction (6 of 6). Examples often start from an external requirement (3 of 6), and informal handling needs formalizing (3 of 6). Constraints: enrollment variability, rising costs, documentation load.
Financial management	Rule-bound, multi-office budgeting through CHED and DBM, with segregation of duties, procurement rules, and COA audit (4 of 6). Requests must name the target they support (6 of 6), and spending is checked against delivered output (4 of 6). Strain: appropriations and release timing, managed by prioritization and phasing.	Budgeting starts from expected enrollment and revenue and is monitored against collections; approval limits, separation of duties, and documentation in all six accounts. Sustainability and recurring cost are explicit tests (3 of 6). Strain: revenue sensitivity (2 of 6), managed by conservative projections and phased spending.
Performance monitoring and evaluation	Formal, documented, multi-source system: OPCR/IPCR, PREXC, internal audits, accreditation, and physical and financial accomplishment reports (6 of 6). Evidence is validated and read beyond the numbers (3 of 6). Results feed the next planning and budgeting cycle (6 of 6).	Report-based monitoring complemented by close contact (6 of 6); CHED and quality assurance findings are a main trigger for action (3 of 6). Results return to planning and budgeting (4 of 6), but tracking of corrective actions is weaker and the formal side is still being strengthened.

Note. Figures in parentheses are the number of informants, out of six per case, whose coded excerpts carried the finding. OPCR/IPCR = Office/Individual Performance Commitment and Review; PREXC = Program Expenditure Classification; PEAC = Private Education Assistance Committee.

Financial management in Case A was rule-bound and multi-office: unit proposals were consolidated, processed through CHED and the Department of Budget and Management, and controlled through segregation of duties, procurement rules, and COA review. All six informants said that budget requests had to name the target or project they supported, and four checked spending against delivered output; as the Budget Officer explained, "Meeting a spending target is not, by itself, goal attainment" (A3). In Case B, budgeting began from expected enrollment and revenue and was monitored against collections, and all six informants described approval, separation-of-duty, and documentation controls. Sustainability and recurring cost were explicit tests: "Strategic alignment therefore includes both relevance and sustainability" (B3). Performance monitoring in Case A was formal and documented in all six accounts, and its results fed the next planning and budgeting cycle. Case B relied on reports complemented by close contact, and regulatory and quality assurance findings were a main trigger for action, but tracking whether corrective actions were completed was weaker.

The two cases thus show the contrast between administrative and cultural controls described by

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Malmi and Brown (2008). Case A's control package was dominated by administrative and cybernetic controls imposed by the national budget, procurement, and audit framework, which agrees with the highly structured and compliant procurement and budgeting processes found in a Philippine state university (Nillos & Libo-on, 2024) and with the SUC financing constraints of limited autonomy and bureaucratic processes described by Flores (2025). Its use of monitoring mainly to steer the implementation of existing plans and to correct deviations in the next cycle mirrors the diagnostic, single-loop use of MCS in public organizations (Fitz Verploegh et al., 2025; Simons, 1995). The documented use of OPCR and IPCR commitments is consistent with the SPMS framework, whose compliance demands have weighed heavily on SUCs (Albert et al., 2021).

Case B relied more on cultural controls, with its Catholic mission as the common reference for decisions, and on direct, interactive communication among a small leadership group. This agrees with the strong influence of organizational culture and institutional capacity on internal control in private HEIs in Nueva Ecija, where controls were generally effective but weaker in monitoring and follow-through (Alarcon et al., 2026). The revenue-sensitive budgeting reported by Case B informants reflects the tuition dependence and enrollment pressure on private HEIs (Bayudan-Dacuycuy et al., 2024; Orbeta et al., 2019). In both cases, external requirements were important triggers of control: CHED, accreditation, and audit in Case A and CHED and quality assurance reviews in Case B. This supports the finding that HEIs adopt control tools largely in response to external pressure (Vale et al., 2022; Tiron-Tudor et al., 2022). The link between planning, budgeting, and monitoring in both cases is consistent with Biondi and Russo's (2022) argument that strategic planning and performance management in universities are interdependent, and with the participatory, resource-aligned planning recommended for public and nonprofit organizations (Bryson & George, 2024).

Manifestation of Organizational Performance

Table 3 summarizes the within-case findings on the four performance indicators. Efficiency in Case A had improved through standardized procedures, quality management controls, and digital communication, but five of six informants said that multiple approval points and handoffs still lengthened processes, and three distinguished necessary control from avoidable delay: “In a large institution, especially one with many offices and approval points, sometimes the process can take longer than we would like” (A2). In Case B, five of six informants credited short communication lines with speed, but unstandardized procedures, documents returned for correction, and peak-period staffing caused delay. Both cases asked for request tracking and predictable workflows. Goal attainment in Case A was judged by broad, externally framed indicators such as access, licensure, accreditation, research, and resource stewardship (6 of 6), and most informants said meeting a number or spending target was not enough (5 of 6). Case B paired academic and service indicators with enrollment and financial sustainability, which three informants treated as a condition of goal attainment: “Not every important outcome is financial, but financial sustainability enables the institution to continue delivering those outcomes” (B2).

Both cases gathered service feedback through several channels and treated recurring concerns as signals of a process problem: “Repeated concerns are particularly important because they may indicate a process issue rather than an isolated case” (A5). Case B relied more on direct access to administrators and acknowledged that responses needed to be consistent and documented. Both cases assessed their institutions favorably and named consistency or integration as the remaining gap, but the evidence differed. Case A pointed to external results and the strain of growth, whereas all six Case B informants described effectiveness as continuity of mission and adaptability under pressure: “We need to make sure good service does not depend solely on a particular employee's personal initiative but is supported by clear standards and processes” (B6).

These findings show that efficiency in each case was shaped by its control system, but in opposite ways. In Case A, the number of control points lengthened processes; in Case B, the lack of formalized procedures did. This pattern corresponds to the leading MCS challenges identified in higher education, namely human resource limits, organizational constraints, and weak technological integration (Lambovska & Angelova-Stanimirova, 2025), and to the gaps in monitoring and personnel

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engagement found in Philippine private HEIs (Alarcon et al., 2026). Case A's broad, externally framed indicators correspond to the multi-perspective performance measurement proposed for a Philippine state university, which covers financial stewardship, stakeholder engagement, internal processes, and learning (Armas et al., 2025). Case B's emphasis on financial sustainability as an enabler of mission is consistent with the view of financial sustainability as both an educational asset and a strategic imperative for Philippine HEIs (Bayudan-Dacuycuy et al., 2024). The integration of financial and non-financial measures sought in both cases also agrees with evidence that cost accounting, budgetary control, and balanced measurement support organizational performance (Hammouch et al., 2024).

Table 3 Within-Case Findings on Organizational Performance

Indicator	Case A: Public state college	Case B: Private college
Efficiency	Improved by standardization, quality controls, and digital communication, but multiple control points and handoffs lengthen processes (5 of 6); necessary control is distinguished from avoidable delay (3 of 6).	Short communication lines speed decisions (5 of 6), but unstandardized procedures, document rework, and peak-period staffing cause delay. Needs: standardized workflows and shared tracking.
Goal attainment	Broad, externally framed indicators: access, completion, licensure, accreditation, research and extension, resource stewardship (6 of 6); quality and delivered output valued over numbers or spending (5 of 6).	Academic indicators (enrollment, retention, completion, faculty qualifications) paired with compliance milestones and financial sustainability, which is read as a condition of goal attainment (3 of 6).
Service delivery	Feedback through surveys, complaints, the Citizen's Charter, and consultations (5 of 6), turned into corrective action and follow-up (4 of 6); repeated concerns treated as process signals (3 of 6).	Feedback through direct access, evaluations, and consultations (3 of 6), turned into corrective action (3 of 6); responses need to be consistent and documented.
Institutional effectiveness	Effective and improving, with external evidence (licensure and employability above targets, accreditation, ISO recertification) cited by one informant; growth must be matched by capacity and funding (4 of 6); consistency and integration remain gaps (3 of 6).	Effective in sustaining mission, programs, and student support under financial and regulatory pressure (6 of 6), without citing external results; systematization, documentation, and institution-wide performance information remain gaps.

Note. Figures in parentheses are the number of informants, out of six per case, whose coded excerpts carried the finding.

Similarities and Differences Between the Cases

Table 4 presents the main cross-case themes. The strongest convergence was the recommendation, made by all six Case A informants and five Case B informants, to establish an integrated planning, budgeting, and performance information system or dashboard. Both cases also tied budget requests to plans, closed the loop from monitoring to planning, managed resource gaps by prioritization and phasing, and framed management control as support for mission and culture, not only compliance: "A mature performance system should distinguish between a problem that needs correction and a person who needs blame" (A6). The differences followed governance. Only Case A named public accountability and legal controls as its distinctive feature, while only Case B named mission identity, revenue exposure, and a compact, personal structure that "can make coordination fast, but it also requires us to formalize systems so that institutional knowledge is not concentrated in a few people" (B2).

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Table 4 Main Cross-Case Themes

Cross-case theme	Case A	Case B	Pattern
Plans, commitments, and external requirements guide direction	6 of 6	6 of 6	Similarity; Case A uses more formal instruments
Budget requests linked to plans, targets, and priorities	6 of 6	6 of 6	Similarity; Case B adds a sustainability test
Rule-based controls and documentation secure accountability	4 of 6	6 of 6	Similarity in practice; rule source differs (government vs. institutional)
Monitoring results feed the next planning and budgeting cycle	6 of 6	4 of 6	Similarity; Case B loop less systematically tracked
Multiple control points and handoffs slow processes	5 of 6	1 of 6	Difference
Short communication lines speed work but informality limits standardization	–	5 of 6	Case B only
Revenue sensitivity and sustainability shape financial decisions	–	3 of 6	Case B only
External review findings drive action	–	3 of 6	Case B only
Public accountability and legal controls shape management	6 of 6	–	Case A only
Integrated planning, budgeting, and performance information system recommended	6 of 6	5 of 6	Strongest convergence
Control as support for mission, culture, and judgment	6 of 6	3 of 6	Similarity

Note. Counts are the number of informants, out of six per case, whose coded excerpts carried the theme; – = theme not evident in that case.

Table 5 relates the findings to the propositions. Proposition 1 was supported for formality, since Case A worked through more numerous and more formal planning instruments, although centralization was not examined directly. Proposition 2 was supported: Case A anchored financial control in government rules and audit, while Case B informants described revenue sensitivity and faster internal decisions, although the evidence of flexibility came from two informants. Proposition 3 was partly supported, because Case A's monitoring was more formally documented and Case B's indicators were tied to enrollment and financial sustainability, but no informant mentioned reputation. Proposition 4 was supported as informants perceived it, since both cases carried monitoring results into the next plan, budget, or procedure and linked efficiency to the design of their controls; the study did not measure performance outcomes independently.

The cross-case pattern suggests that the two sectors face mirror-image control problems. The public college has strong formal controls whose number and sequencing slow its responsiveness, while the private college has responsiveness and cultural cohesion but insufficiently formalized procedures and follow-through. This is consistent with Malmi and Brown's (2008) view that controls work as a package, so that strength in one type cannot fully substitute for weakness in another, and with Simons's (1995) argument that diagnostic and interactive controls must be balanced. It also agrees with Carbonell's (2025) conclusion that governance, financial management, and strategic planning must be strengthened together if SUCs are to balance accountability with performance. The shared call for

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an integrated information system addresses the technological integration gap that recurs in the higher education MCS literature (Lambovska & Angelova-Stanimirova, 2025). These interpretations rest on informants' accounts from two institutions and should be read as analytic rather than statistical generalizations.

Table 5 Findings in Relation to the Research Propositions

Proposition	Evidence from the two cases	Finding
P1. Public and private HEIs differ in the formality and centralization of strategic planning.	Case A uses a layered set of formal instruments and a coordinating planning unit; Case B consults directly, and three informants say informal handling needs formalizing. Both cascade goals through meetings and memoranda.	Supported for formality; centralization not examined
P2. The private HEI is more flexible and revenue-sensitive in financial management; the public HEI is bound by public fund rules and audit.	Case A anchors control in government rules and COA audit and names public accountability as distinctive (6 of 6). Case B describes revenue sensitivity and faster internal decisions (B2, B3).	Supported; flexibility evidenced by two informants
P3. Public HEI monitoring is more formally documented; private HEI monitoring is tied to enrollment, reputation, and stakeholders.	Case A reports a formal, documented system in all six accounts. Case B ties indicators to enrollment, retention, financial sustainability, and regulator feedback; no informant mentions reputation.	Partly supported
P4. MCS implementation is related to organizational performance in both cases.	Both carry monitoring results into the next plan, budget, or procedure (6 of 6; 4 of 6). Efficiency is linked to the control system in both, and service feedback becomes corrective action.	Supported as perceived by informants

Proposed Management Control System Framework

Figure 1 presents the proposed framework. It is anchored on the institution's mission, vision, and core values and recognizes the distinct public and private contexts identified in the study. Its core is a cycle of five linked elements: (a) planning and goal setting through a leadership-directed, consultative, and evidence-based process; (b) resource allocation and financial control that links budget requests to plans and applies prioritization, phasing, and sustainability analysis; (c) implementation and operations through standardized processes, defined responsibilities, and shared tracking tools; (d) monitoring and performance evaluation with multidimensional indicators that value quality and delivered outputs over numbers or spending; and (e) feedback and corrective action in which recurring concerns are treated as process signals and actions are documented and carried into the next cycle. An integrated planning, budgeting, performance, and document-tracking information system supports all five elements. The framework is intended to strengthen efficiency, goal attainment, service delivery, and institutional effectiveness, with public HEIs emphasizing the reduction of avoidable delay within accountability rules and private HEIs emphasizing formalization and follow-through.

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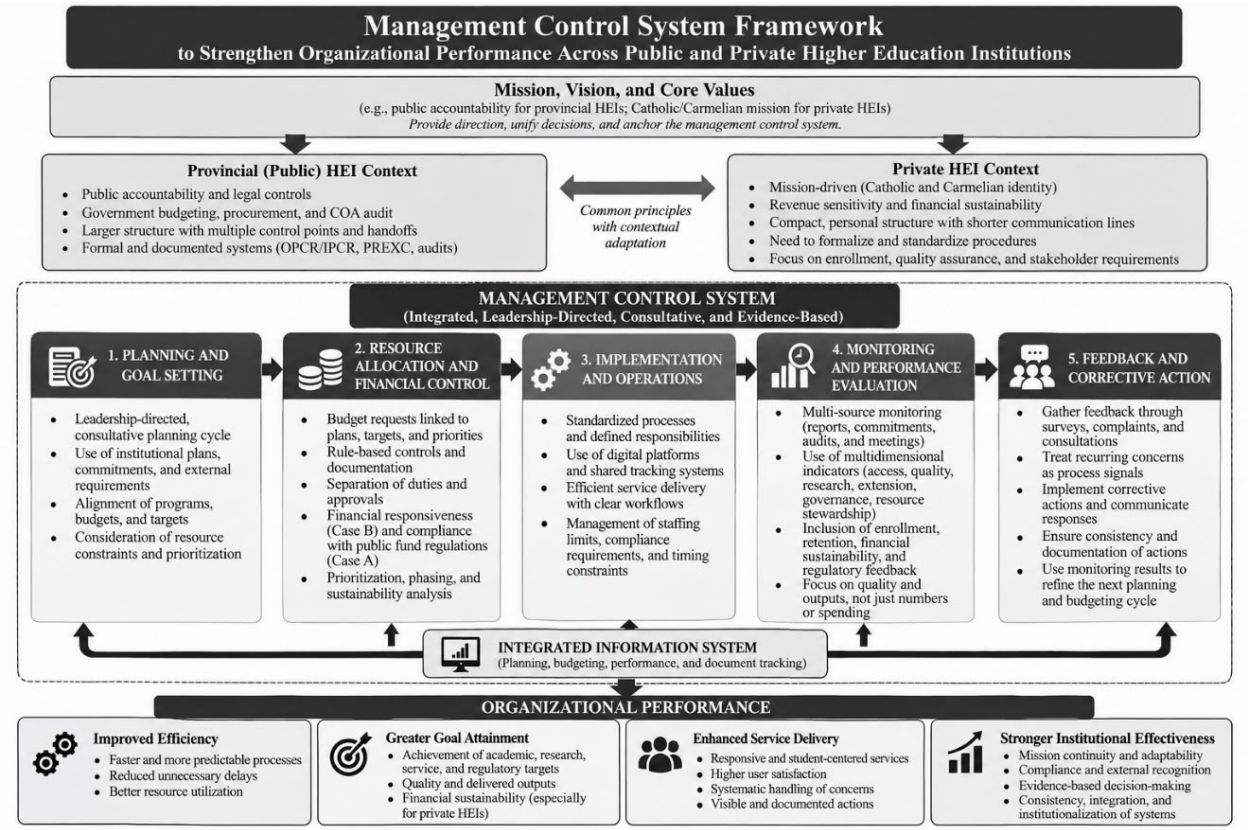


Fig.1: Proposed Management Control System Framework for Public and Private Higher Education Institutions

Note. Developed from the within-case and cross-case findings of the study.

Limitations

The study examined two institutions in one province, and its findings rest mainly on the accounts of six informants per case, so they support analytic rather than statistical generalization. Organizational performance was examined as informants described it, not through independently measured outcomes, and the relationship between MCS and performance was therefore not established causally. The informants were senior personnel, and the views of faculty, staff, and students were not included.

V. CONCLUSIONS AND RECOMMENDATIONS

The public state college implemented a formal, compliance-driven management control system of layered plans, government-regulated budgeting and audit, and documented performance monitoring, which secured accountability and traceability but lengthened processes through multiple control points and handoffs. The private college implemented a mission-guided, consultative, and revenue-sensitive system in which short communication lines supported quick decisions, but informal handling, uneven documentation, and weak tracking of corrective actions limited consistency. Both institutions integrated planning, financial management, and performance monitoring, tied budgets to plans, and fed monitoring results back into planning, and both identified an integrated information system as the most needed improvement. The relationships between management control and performance were perceived by informants rather than causally established. An integrated, five-element MCS framework adaptable to public and private contexts was proposed.

HEI administrators and governing boards may align planning, budgeting, and monitoring around shared institutional objectives and indicators while respecting the governance requirements of each sector. Planning, budget, and finance officers may develop an integrated planning, budgeting, and performance information system with request tracking to reduce fragmented records and repeated follow-up. In public HEIs, administrative and

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procurement units may review approval sequences to separate legally required controls from avoidable delay. In private HEIs, administrators may formalize routine workflows, document responses to stakeholder concerns, and track the completion of corrective actions so that good practice does not depend on particular individuals. Quality assurance offices and academic heads in both sectors may treat recurring concerns as process signals and verify that corrective actions produce measurable improvement. CHED may consider these sectoral differences in its capacity-building support for HEI governance. Institutions may pilot-test the proposed framework, and future researchers may validate it across more public and private HEIs, include faculty, staff, and student perspectives, and combine informant accounts with quantitative performance indicators.

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DECLARATION OF CONFLICT OF INTERESTS

The authors declare no conflict of interest. [Note to authors: the first author heads the planning and development unit of one of the participating institutions; consider disclosing this role here and describing how its influence was managed.

REFERENCES

[1] Alarcon, L., Franco, J., Garcia, G., & Barlis, B. (2026). Examining the effectiveness and implementation challenges of internal control systems for strategic risk management in private higher education institutions. *Problems and Perspectives in Management, 24*(1), 292–304. https://doi.org/10.21511/ppm.24(1).2026.20

[2] Albert, J. R. G., Mendoza, R. U., Cuenca, J. S., Opiniano, G. A., Monje, J. D., Pastor, M. A., & Muñoz, M. S. (2021). *Process evaluation of the performance-based bonus scheme* (PIDS Research Paper Series No. 2021-03). Philippine Institute for Development Studies.

[3] Anjirani, S. D. (2024). Assessment of organizational management capacity of public higher education institutions: The case of Sulu State College. *Journal of Interdisciplinary Perspectives, 2*(7), 173–184. https://doi.org/10.69569/jip.2024.0175

[4] Anthony, R. N. (1965). *Planning and control systems: A framework for analysis*. Harvard University Graduate School of Business Administration.

[5] Anthony, R. N., & Govindarajan, V. (2007). *Management control systems* (12th ed.). McGraw-Hill/Irwin.

[6] Armas, K. L., Siat, G. O., & Santos, A. R. (2025). Improving quality education through strategic performance measurement system in a state university in the Philippines. *International Journal of Innovative Research and Scientific Studies, 8*(2), 724–735. https://doi.org/10.53894/ijirss.v8i2.5316

[7] Armstrong, M. (2022). *Armstrong's handbook of performance management* (7th ed.). Kogan Page.

[8] Bayudan-Dacuycuy, C., Flores, H., & Uy, A. O. (2024). *Financial sustainability of higher education institutions in the Philippines: Issues, challenges, and opportunities* (PIDS Discussion Paper No. 2024-24). Philippine Institute for Development Studies. https://doi.org/10.62986/dp2024.24

[9] Biondi, L., & Russo, S. (2022). Integrating strategic planning and performance management in universities: A multiple case-study analysis. *Journal of Management and Governance, 26*(2), 417–448. https://doi.org/10.1007/s10997-022-09628-7

[10] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

[11] Bryson, J. M., & George, B. (2024). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement* (6th ed.). Wiley.

[12] Carbonell, M. S. (2025). Corporatization strategies of Philippine state universities and colleges under Republic Act 8292: A systematic literature review. *Universal Journal of Educational Research, 4*(3), 340–355.

[13] Fitz Verploegh, R., Budding, T., & Wassenaar, M. (2025). The relationship between management control systems and strategy: How management control systems are designed and used in the public policy context of Dutch ministries. *Journal of Public Budgeting, Accounting and Financial Management, 37*(6), 302–323. https://doi.org/10.1108/JPBAFM-01-2025-0002

[14] Flores, H. P. (2025). *Strengthening the financing of state universities and colleges: Challenges and opportunities* (PIDS Discussion Paper No. 2025-16). Philippine Institute for Development Studies. https://doi.org/10.62986/dp2025.16

[15] Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

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[16] Hammouch, H., Falahat, M., & Najmi, H. (2024). Impact of management control on the organizational performance. *Journal of Infrastructure, Policy and Development, 8*(8), Article 6910. https://doi.org/10.24294/jipd.v8i8.6910

[17] Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing, 72*(12), 2954–2965. https://doi.org/10.1111/jan.13031

[18] Lambovska, M., & Angelova-Stanimirova, A. (2025). Unveiling challenges to management control systems in higher education: A systematic literature review. *World, 6*(3), Article 100. https://doi.org/10.3390/world6030100

[19] Lewis, R. L., Sutton, N., & Brown, D. A. (2024). How senior managers use interactive control to manage strategic uncertainties: An attention-based view. *Management Accounting Research, 62*, Article 100864. https://doi.org/10.1016/j.mar.2023.100864

[20] Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

[21] Malmi, T., & Brown, D. A. (2008). Management control systems as a package: Opportunities, challenges and research directions. *Management Accounting Research, 19*(4), 287–300. https://doi.org/10.1016/j.mar.2008.09.003

[22] Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research, 26*(13), 1753–1760. https://doi.org/10.1177/1049732315617444

[23] Merchant, K. A., & Van der Stede, W. A. (2017). *Management control systems: Performance measurement, evaluation and incentives* (4th ed.). Pearson Education.

[24] Nillos, J. R., & Libo-on, R. M. (2024). Internal control system landscape of a state university in a highly urbanized city. *Journal of Interdisciplinary Perspectives, 2*(8), 362–376. https://doi.org/10.69569/jip.2024.0292

[25] Orbeta, A. C., Jr., Reyes, C. M., Ortiz, M. K. P., Melad, K. A. M., & Araos, N. V. V. (2019). *Process evaluation of the Universal Access to Quality Tertiary Education Act (RA 10931): Status and prospects for improved implementation* (PIDS Discussion Paper No. 2019-36). Philippine Institute for Development Studies.

[26] Simons, R. (1995). *Levers of control: How managers use innovative control systems to drive strategic renewal*. Harvard Business School Press.

[27] Su, S., Baird, K., & Schoch, H. (2017). Management control systems: The role of interactive and diagnostic approaches to using controls from an organizational life cycle perspective. *Journal of Accounting & Organizational Change, 13*(1), 2–24. https://doi.org/10.1108/JAOC-03-2015-0032

[28] Tiron-Tudor, A., Nistor, C. S., Fekete, S., & Alexandru, A. (2022). Factors influencing public higher education institutions' performance reporting in the Romanian context. *Administrative Sciences, 12*(4), Article 163. https://doi.org/10.3390/admsci12040163

[29] Vale, J., Amaral, J., Abrantes, L., Leal, C., & Silva, R. (2022). Management accounting and control in higher education institutions: A systematic literature review. *Administrative Sciences, 12*(1), Article 14. https://doi.org/10.3390/admsci12010014

[30] Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage.

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