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The Influence of Top Management Team Power and Strategic Choices in Public Hospitals Management Control Systems in Indonesia

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ABSTRACT

This study investigated the relationship between power levels of top management team members, strategic choices, and management control systems (MCS) in regional public hospitals (RPHs-BLUD) in Indonesia. With the implementation of New Public Management principles in public hospitals, effective management control is crucial. RPH-BLUD in Indonesia faces challenges in designing and implementing ideal MCS, particularly related to the dominance of medically-oriented managers. Employing a quantitative approach, data was collected through a questionnaire survey of top management team members in RPHs-BLUD in Indonesia. The data were analyzed using Structural Equation Modeling with the Partial Least Squares (SEM-PLS) technique. Findings revealed that defender and prospector strategies positively influenced both bureaucratic and less bureaucratic MCS designs, as well as diagnostic MCS use. Informal authority moderated the relationship between prospector strategy and interactive MCS use. However, formal authority did not moderate the relationship between defender strategy and more bureaucratic MCS design, while informal authority did not moderate the relationship between prospector strategy and less bureaucratic MCS design. Practical implications involved enhancing understanding of the impact of strategy, authority, and interactions among management team members on the design and use of MCS in RPHs-BLUD, with a focus on organizational effectiveness and flexibility.

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1. INTRODUCTION

Following the adoption of New Public Management (NPM) principles in public hospitals globally (Mei & Kirkpatrick, 2019; Nyland & Pettersen, 2015), the significance of the management control dimension in organizational management has become paramount (Øygarden et al., 2020). Contemporary public hospitals are now expected to achieve accountability, efficiency in resource use, standardized service delivery, cost containment, performance measurement, and enhanced patient satisfaction (Arman et al., 2014). These goals rest heavily on the premise that well-designed and effectively implemented management control systems (MCS) are essential to achieving superior organizational outcomes (Anthony, 1965; Simons, 1995). Empirical studies have shown that MCS can support operational (Nartey et al., 2020), financial (Hammad et al., 2013), and administrative (Chenhall et al., 2010) performance in healthcare settings.

In Indonesia, NPM reforms were operationalized through the transformation of regional public hospitals (RPHs) into public service agencies (*Badan Layanan Umum Daerah*—BLUD) beginning in 2005, aiming to improve hospital performance by granting greater autonomy, adopting output-based budgeting, and introducing private-sector control mechanisms (Ministry of Health Regulation No. 63/2016). However, the practical implementation of these reforms has encountered numerous challenges (Fahlevi et al., 2021; Prayudi et al., 2024). Hospitals function within dual institutional logics—bureaucratic control inherited from traditional administration and professional autonomy upheld by medical staff—which often conflict in day-to-day operations. These tensions hinder effective MCS design, as medical leaders often resist administrative controls (Belrhiti et al., 2021; Kirkpatrick et al., 2023), resulting in symbolic compliance. The mix of formal mandates and informal clinical authority further complicates governance, challenging MCS alignment with NPM goals (Lega et al., 2022; Mériade & Rochette, 2022).

This study explored the interplay between top management team (TMT) power, strategic choices, and management control systems (MCS) in Indonesian regional public hospitals operating under public service agency status (RPHs-BLUD). The regulatory shift toward BLUD mandates innovative governance, with MCS expected to enable autonomous decision-making, financial accountability, and strategic responsiveness. However, as noted by Nurkholis et al. (2023), the prevalent reliance on cybernetic, financially driven MCS limits organizational adaptability and hinders innovation, thereby impeding performance in a dynamic healthcare environment. These challenges are exacerbated by internal power dynamics, where medically trained managers—particularly doctors—tend to prioritize clinical over economic logic in shaping MCS design (Fahlevi, 2016). Administrative compliance is often symbolic, driven by professional egotism that undermines MCS effectiveness (Prayudi & Basuki, 2014). To address this, Prayudi et al. (2023) and Nurkholis et al. (2024) emphasized the importance of considering TMT characteristics, arguing that professional diversity and power asymmetries critically influence MCS implementation in hybrid public healthcare settings.

TMT personal characteristics, influencing organizational performance through social integration and consensus, alongside considerations of relative power levels, are crucial (Finkelstein et al., 2009). Chenhall et al. (2010) elaborated on how cultural and economic capital's power and influence shape implemented MCS designs. Formal MCS links to high economic capital, while informal MCS related to high social capital. Pitcher and Smith (2001) empirically showed power proxies' role in explaining TMT diversity's impact on strategic decisions. Research on TMT diversity, organizational strategy, and MCS in public

hospital yielded varied results (de Harlez & Malagueño, 2016). Naranjo-Gil and Hartmann (2007) found medical managers in TMP positively influenced MCS, enhancing inter-divisional communication. Lunches et al. (2018) reported clinical TMP members showed no preference for cooperative-oriented MCS. Naranjo-Gil and Hartmann (2006) revealed professional TMT diversity positively affected flexibility but not cost reduction. TMT power is crucial, as strategic decisions often reflect personal perspectives (Shepherd & Rudd, 2014).

Despite the adoption of NPM principles and the formal delegation of authority within RPH-BLUDs, prior literature has yet to fully explore how strategic choices interact with managerial power to shape the design and use of MCS. Existing studies have largely emphasized technical or structural dimensions of MCS (Janka, 2021; Yonce & Barnes, 2022), often within private or Western institutional contexts (Bai et al., 2023). In contrast, little is known about how MCS operate in hybrid professional organizations like Indonesian public hospitals, where informal authority—particularly among clinicians—plays a critical role in governance (Handayani et al., 2016; Nugroho et al., 2022). Empirical research in developing countries remains scarce, and current frameworks often overlook how informal power dynamics intersect with formal structures to influence control systems (Bedford et al., 2016). This study addressed these gaps by examining how strategic orientations (defender vs. prospector) and power asymmetries (formal vs. informal authority) jointly shaped MCS configurations in Indonesian RPHs-BLUDs. In doing so, it extended the contingency-based MCS theory and contributes a contextually nuanced understanding of control system dynamics in reformed public sector settings, offering valuable insights for aligning MCS with strategic objectives amid institutional complexity and professional dominance (Méziade & Rochette, 2022; Øygarden et al., 2020).

2. LITERATURE REVIEW

2.1 Strategic Choice and Management Control System Design

Differences in strategic choices significantly influence the variation in MCS designs. Chenhall (2003) argued that the MCS is an organizational design determined by internal factors, including strategic choices. The relationship between MCS and strategic choices arises logically from the understanding that organizations operate in different strategic contexts, different strategies require variations in priorities, key factors, skills, and behaviors, management control influences individual behavior, and control design should align with organizational strategy (Anthony & Govindarajan, 2007).

MCS is designed in response to strategic choices set by the top management team. Miles and Snow (1978) categorized strategies into defenders and prospectors. Defender organizations operate in stable, narrow product markets, emphasizing efficiency over innovation, relying on historical information, and minimizing the need for extensive external monitoring (Hammad et al., 2010). Prospector organizations identify and exploit product and market opportunities by monitoring various environmental conditions (Miles & Snow, 1978). Consequently, external, non-financial, and future-oriented information suits the needs of managers in these organizations (Hammad et al., 2010).

In this study, MCS design types referred to Auzair and Langfield-Smith's (2005) classification, distinguishing between 'more bureaucratic' and 'less bureaucratic' MCS. A 'more bureaucratic' MCS includes action controls, formal controls, tight controls, restricted response, and impersonal emphasis. 'Less bureaucratic' MCS consists of results controls, informal controls, loose controls, flexible response, and

interpersonal emphasis. Formal controls encompass rules, standard operating procedures, and budgeting systems, while informal controls include unwritten policies, norms, and values applied within the organization (Langfield-Smith, 1997).

Bedford et al. (2016) reported that defender-type organizations tended to adopt mechanistic structural controls, while prospector-type organizations prioritize organic structural controls. According to Simons (1995), prospector strategies focusing on innovation and growth require more open, flexible, and adaptive management control systems. In contrast, defender strategies focusing on efficiency and stability necessitate more formal, structured, and controlled management control systems. Therefore, the first hypothesis in this study was as follows:

H1: Defender (prospector) strategies positively influence the design of 'more bureaucratic' ('less bureaucratic') management control systems.

2.2 Strategic Choice and Management Control System Use

The implementation of different sets of strategic priorities in the same type of organization requires specific types of MCS usage to support their achievement (Anthony & Govindarajan, 2007). Simons (1995) categorized forms of MCS usage into two categories: diagnostic and interactive. When managers use MCS diagnostically, routines and procedures based on formal information help reduce deviations from established performance standards but may hinder the organization's focus on exploring new opportunities (de Harlez & Malagueño, 2016). Conversely, when managers use MCS interactively, routines and procedures based on formal information encourage discussion and communication to promote innovation, providing higher freedom to act and fostering bottom-up strategy development (Naranjo-Gil & Hartmann, 2007).

In the context of hospitals, the use of MCS and organizational strategy choices was closely interconnected (Abernethy & Brownell, 1999; Akingbola, 2006; de Harlez & Malagueño, 2016; Hammad et al., 2010). Naranjo-Gil & Hartmann (2007) studied public hospitals in Spain, documenting a positive relationship between extensive (interactive) MCS usage and prospector strategy choices. Hammad et al. (2010) also stated that hospitals undergoing a strategic shift (from defender to prospector) had used budgets interactively, focusing on dialog communication and learning. Thus, the second hypothesis in this study was as follows:

H2: Defender (prospector) strategies positively influence the use of diagnostic (interactive) management control systems.

2.3 Interaction of Power, Strategic Choice, and Design and Usage of Management Control System

The power, as defined by Hardy (1996), is a force influencing desired outcomes. Power is also described by Etzioni (1965) as a tool or means used for control purposes. Wax (1971) defined power as the ability to control vital resources for one's functionality or an organization's survival and influence behavior through reward and punishment mechanisms. There are two major categories of power: positional/structural power and personal power (Fousiani, 2022). Positional/structural power includes three sub-categories: legitimate power, coercive power, and reward power. On the other hand, personal power can be expertise power and referent power.

Power is a major source of complexity and turbulence in hospital organizations (Wax, 1971). Brinkerhoff (2003) revealed that the existence of power plays a crucial role in RS organizational dynamics. A hospital is an organization with unclear and conflicting goals among stakeholders, ambiguous information distribution in decision-making, complex functional job divisions, and perceptions of uncertainty or even misunderstanding about the causal relationships between actions taken and outcomes. Power is found to dominate the logic of behavior in RS organizational elements (Abernethy & Vagnoni, 2004).

Managerial authority types can reflect power ownership and are closely related to organizational strategic decisions. Formal authority represents the delegation of decision-making authority to managers, while informal authority is the ability of individuals or groups to influence organizational decisions and activities in ways not subject to formal authority system sanctions (Abernethy & Vagnoni, 2004). Formal authority is identical to structural power ownership, while informal authority is identical to personal power ownership. The power level of key organizational actors can be depicted from the established design and usage of management control systems (Markus & Pfeffer, 1983).

de Harlez & Malagueño (2016) revealed that diagnostic MCS usage correlates with the application of authorities owned by formal manager positions in the organizational hierarchy. Eldenburg et al. (2017) argued that organizations focusing on cost and performance control, facilitated by formal and administrative delegation of authority to managers. Bedford et al. (2016) found that organizations implementing defender (prospector) strategies emphasized formal (informal) authority paths, focusing on tight (loose) control types and financial matrices (informal communication and high autonomy). Therefore, the third and fourth hypotheses in this study were as follows:

- H3_a:** Formal authority strengthens the influence of defender strategy on the design of 'more bureaucratic' management control systems.
- H3_b:** Informal authority strengthens the influence of prospector strategy on the design of 'less bureaucratic' management control systems.
- H4_a:** Formal authority strengthens the influence of defender strategy on the usage of diagnostic management control systems.
- H4_b:** Informal authority strengthens the influence of prospector strategy on the usage of interactive management control systems.

3. METHODOLOGY

3.1 Data Collection

This study employed a quantitative research approach with data collection conducted through a survey questionnaire. The research was a cross-sectional field study involving multiple samples during a specific time period. The population consisted of all Regional Public Hospitals transformed into regional public service agencies (*Badan Layanan Umum Daerah*—BLUD) in Indonesia. The sample included RPHs with BLUD status for a minimum of three years, considering an adequate period for the design and usage of the management control system in response to the organization's strategic choices. The selected respondents were members of the top management team (TMT) of the organization, as defined by Presidential Regulation Number 77 of 2015 regarding Hospital Organization Guidelines. Specifically, the study included TMT members from both clinical/medical and non-medical backgrounds to explore how clinical

backgrounds played a key role in shaping the power dynamics (structural versus personal) within the team, particularly in how formal and informal authority is distributed.

The questionnaire was distributed to 400 members of the TMT across 80 RPH-BLUD in Indonesia. Out of this total, 250 questionnaires were returned (response rate = 62.5%), and further analysis was possible with 232 questionnaires (usable response rate = 58%) from 73 organizations. The majority of respondents were male (58.2%), with an average age of 44.4 years, falling within the age range of 30 to 40 years (70.7%). More than half had an educational background in the health field (52.6%) and had been serving in TMT positions for an average of 5.6 years. We found no evidence of non-response bias, as no statistically significant differences were observed in the responses between 30% early and 30% late respondents (Meterko et al., 2015).

3.2 The Variables

Management Control System Design

This study defined management control system (MCS) design into two main categories: 'more bureaucratic'—action, formal, tight, restricted, and impersonal controls—and 'less bureaucratic'—results, informal, loose, flexible, and interpersonal controls—(Auzair & Langfield-Smith, 2005). Respondents were asked to indicate the extent to which two statements presented in the instrument can best describe the emphasized type of MCS design in the organization by choosing a number on a 5-point scale (loading factor > 0.7; AVE = 0.652; Cronbach's alpha = 0.933). A score of (1) indicated a greater emphasis on 'more bureaucratic' MCS, and a score of (5) indicated a greater emphasis on 'less bureaucratic' MCS. The 'more bureaucratic' vs. 'less bureaucratic' classification provided a clear framework for analysing MCS in RPHs-BLUDs, which were transitioning from rigid public-sector control to more flexible, performance-oriented systems under NPM reforms (Prayudi et al., 2024). This dichotomy helped identify whether hospitals prioritized stability and regulation (bureaucratic) or efficiency and autonomy (less bureaucratic), reflecting the hybrid nature of these organizations (Fahlevi et al., 2021).

Management Control System Use

The use of MCS diagnostically and interactively was measured using a Likert-type instrument from Abernethy & Brownell (1999). The instrument consisted of 10 items reflecting key features of diagnostic and interactive MCS usage (loading factor > 0.7; AVE = 0.696; Cronbach's alpha = 0.891). Respondents were asked to indicate their agreement with the application of each of the 10 question items ((1) 'strongly disagree' to (5) 'strongly agree').

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Strategic Choice

This variable was defined based on Miles and Snow's (1978) strategy typology. Samples were categorized into different strategy groups using a self-typing method. Respondents were provided with

descriptions of each strategy type (presented without strategy names) and asked to choose the paragraph statement that accurately described their organization's profile. The study used an instrument developed by Shortell and Zajac (1990) applied to the hospital administration context (loading factor > 0.7 ; AVE = 0.605; Cronbach's $\alpha = 0.674$). The result was the classification of samples into two categories: defender and prospector strategies. The defender vs. prospector typologies distinguished hospitals focused on stability and efficiency (defender) from those prioritizing innovation and growth (prospector). By applying these typologies, the study helped identify the extent to which RPHs-BLUDs embraced a more conservative or innovative approach to management control (Prayudi et al., 2023), illustrating how these hospitals were adapting to NPM reforms that demanded both financial autonomy and improved service delivery.

Formal Authority

This variable was defined as the degree to which specific decision-making rights are delegated to managers (Govindarajan, 1988) (loading factor > 0.7 ; AVE = 0.656; Cronbach's $\alpha = 0.742$). Measurement was conducted using an instrument that asked respondents to indicate the degree of authority delegated to them ((1) 'strongly disagree' to (5) 'strongly agree') for three critical organizational decisions: (1) operational cost magnitude, (2) process management, and (3) achievement of budget and performance targets.

Informal Authority

This variable was defined as the level at which managers influence organizational strategic priorities and decisions related to resource usage, technology investment, clinical privilege determination, and program allocation (Abernethy & Vagnoni, 2004) (loading factor > 0.7 ; AVE = 0.612; Cronbach's $\alpha = 0.690$). Respondents were asked to indicate the degree of authority they had over these strategic decisions ((1) 'not authorized at all' to (5) 'very authorized').

3.3 Data Analysis

This study employed Structural Equation Modeling using the Partial Least Squares (SEM-PLS) approach to analyze the relationships between top management team power, strategic choice, and management control systems (MCS). SEM-PLS was appropriate due to its flexibility in handling complex latent variable models and its suitability for sample sizes typical in organizational research (Hair et al., 2018). This approach enabled us to simultaneously assess the measurement model and structural paths, capturing interdependencies among variables.

4. RESULTS AND DISCUSSION

4.1 Results

Descriptive Statistics

Table 1 provides an overview of the descriptive statistics of the research variables. The analysis results indicated that respondents perceived themselves to have a relatively high level of formal and informal authority (mean = 4.10 and 4.07, respectively). The management control system (MCS) was perceived to be more dominantly used interactively (mean = 4.04) and tended to be 'less bureaucratic' (mean = 3.683). Meanwhile, respondents perceived that the RPHs-BLUD organizations where they work were currently

transitioning from a defender strategy towards a prospector strategy (mean = 2.76).

Table 1. Descriptive Statistics of Variables

	Formal	Informal	Use	Design	Strategy
Mean	4.1020	4.0747	4.0455	3.6836	2.7644
Std. Deviation	.69951	.71079	.78907	.81845	.92428
Minimum	2.00	1.67	1.56	2.00	1.00
Maximum	5.00	5.00	5.00	5.00	5.00
N (Valid)	232	232	232	232	232
N (Missing)	0	0	0	0	0

Source: Author processing

Hypothesis Testing

The first hypothesis (H_1) predicted a positive influence of defender (prospector) strategy on the design of management control systems that are either 'more bureaucratic' ('less bureaucratic'). The test results (Table 2) indicated a significant positive coefficient ($\beta = 0.411$, $p\text{-value} < 0.01$) in the relationship between organizational strategy and the design of management control systems. Thus, it can be stated that hypothesis H_1 was supported.

Hypothesis H_2 predicted a positive influence of defender (prospector) strategy on the diagnostic (interactive) use of management control systems. The test results (Table 2) indicated a significant positive coefficient ($\beta = 0.313$, $p\text{-value} < 0.01$) in the relationship between organizational strategy and the design of management control systems. Therefore, it can be stated that hypothesis H_2 was supported.

Hypothesis H_{3a} predicted a moderating role of formal authority in the influence of defender strategy on the design of 'more bureaucratic' management control systems. The test results (Table 2) indicated a positive coefficient ($\beta = 0.022$) but insignificant ($p\text{-value} > 0.05$) interaction between formal authority and organizational strategy in the design of management control systems. Thus, it can be stated that hypothesis H_{3a} was not supported.

Hypothesis H_{3b} predicted a moderating role of informal authority in the influence of prospector strategy on the design of 'less bureaucratic' management control systems. The test results (Table 2) indicated a negative coefficient ($\beta = -0.031$) and insignificant ($p\text{-value} > 0.05$) interaction between informal authority and organizational strategy in the design of management control systems. Therefore, it can be stated that hypothesis H_{3b} was not supported.

Hypothesis H_{4a} predicted a moderating role of formal authority in the influence of defender strategy on the diagnostic use of management control systems. The test results (Table 2) indicated a positive coefficient ($\beta = 0.067$) but insignificant ($p\text{-value} > 0.05$) interaction between formal authority and organizational strategy in the diagnostic use of management control systems. Thus, it can be stated that hypothesis H_{4a}

was not supported.

Hypothesis H_{4b} predicted a moderating role of informal authority in the influence of prospector strategy on the interactive use of management control systems. The test results (Table 2) indicated a significant positive coefficient ($\beta = 0.185$, $p\text{-value} < 0.05$) in the interaction between informal authority and organizational strategy in the interactive use of management control systems. Therefore, it can be stated that hypothesis H_{4b} was supported.

Table 2. Summary of Hypothesis Testing Results

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Original Sample (O)	Sample Mean (M)
Formal*Strategy → Use	0.067	0.065	0.098	0.690	0.491
Informal*Strategy → Use	0.185	0.185	0.092	2.012	0.045*
Formal → Use	0.213	0.223	0.077	2.770	0.006
Formal → Design	-0.108	-0.107	0.065	1.652	0.099
Informal → Use	0.229	0.229	0.070	3.288	0.001
Informal → Design	0.314	0.313	0.072	4.332	0.000
Formal*Strategy → Design	0.022	0.026	0.064	0.348	0.728
Informal*Strategy → Design	-0.031	-0.040	0.065	0.483	0.629
Strategy → Use	0.313	0.306	0.059	5.315	0.000**
Strategy → Design	0.411	0.412	0.061	6.702	0.000**

Source: Author processing

4.2 Discussion

The significant positive coefficient in the relationship between strategic choice and the design of management control systems provided insights into the impact of the defender (prospector) strategy on organizational control. Aligned with the New Public Management (NPM) agenda's emphasis on enhanced authority and independent control, this influence suggested that organizations, whether pursuing stability and efficiency (defender) or innovation and growth (prospector), significantly shaped their MCS (Prayudi et al., 2024). The 'more bureaucratic' or 'less bureaucratic' design reflected control mechanisms' adaptability based on strategic orientation, crucial in healthcare and other sectors to align structures with objectives. Defenders prioritized stability, efficiency, and centralized decision-making, resulting in 'more bureaucratic' systems (Rusch et al., 2019), while prospectors favoured innovation, flexibility, and decentralized decision-making, leading to 'less bureaucratic' systems (Yuan et al., 2023). This strategic coherence ensured

organizations tailored control frameworks to achieve goals effectively, showcasing the strategic alignment's positive impact.

The findings also supported hypothesis on a positive influence of the defender (prospector) strategy on the diagnostic (interactive) use of MCS. It underscored the substantial impact of organizational strategy on shaping the nature of control system utilization. This suggested that organizations adopting either the defender or prospector strategy significantly influenced the way they employed their MCS (Felićio et al., 2021). Specifically, the defender strategy, focusing on stability and efficiency, oriented organizations toward a more diagnostic use of control systems, emphasizing routine and formalized procedures to monitor and maintain performance standards (Lachmann et al., 2013). On the other hand, the prospector strategy, emphasizing innovation and growth, aligned with an interactive use of control systems, fostering open communication and adaptability (Alnoor et al., 2022). This nuanced relationship between organizational strategy and control system use highlighted the strategic coherence between a chosen strategy and the organization's approach to utilizing management controls.

Our findings indicated that formal authority did not significantly moderate the relationship between defender strategy and the design of more bureaucratic management control systems (MCS). Also, it was found that informal authority did not significantly moderate the relationship between prospector strategy and the design of less bureaucratic MCS. This suggested that the influence of strategic choice on MCS design may be largely direct and less contingent upon the levels of formal or informal authority than initially hypothesized.

A plausible explanation for these non-significant results lies in the intrinsic characteristics of the defender and prospector strategies themselves. The defender strategy inherently emphasized stability (Miles & Snow, 1978), efficiency (Morais & Graça, 2013), standardized procedures (Andrews et al., 2009), and predictability (Das & Canel, 2023), which naturally leads to the adoption of more bureaucratic control mechanisms. These control designs were deeply embedded in the strategic logic of defenders and may operate relatively independently from variations in formal authority delegation within the organizational hierarchy. In contrast, the prospector strategy prioritized innovation (Prayudi et al., 2024), flexibility (Naranjo-Gil, 2009), and decentralization (Scalera & Talpová, 2013), aligning organically with less bureaucratic, more flexible control system designs. Hence, informal authority, while important for influencing organizational decisions, may not significantly enhance or alter the strategic impetus toward such control system configurations.

Furthermore, contextual factors unique to Indonesian regional public hospitals (RPHs-BLUD) provided additional insight into these findings. These organizations operated within a hybrid institutional environment where formal bureaucratic mandates coexisted with strong professional clinical norms and informal power structures (Fahlevi et al., 2021; Handayani et al., 2019; Nugroho et al., 2022). In such settings, the complex interplay between bureaucratic control and professional autonomy can attenuate the moderating role of both formal and informal authority on control system design. For example, medical professionals' clinical authority, embedded in informal power (Abernethy & Vagnoni, 2004; Belrhiti et al., 2021), may have limited interaction with formal hierarchical authority in shaping bureaucratic control systems, thus diluting the expected moderating effects. Similarly, formal authority structures may be insufficiently flexible or empowered to significantly influence the inherently stable, control-focused orientation of defender strategies (Ramli & Iskandar, 2014) in these hospitals.

Another result indicating a positive coefficient but an insignificant interaction between formal authority and defender strategy concerning the diagnostic use of management control systems suggested that formal authority did not significantly strengthen the impact of the defender strategy on shaping a diagnostic use of control systems. A plausible interpretation is that the defender strategy, which emphasized stability, efficiency, and reliance on established procedures, may inherently drive the use of management control systems in a diagnostic manner. The lack of statistical significance implied that formal authority may not play a substantive moderating role in this relationship. Organizations adopting a defender strategy might naturally prioritize diagnostic control mechanisms, irrespective of the level of formal authority, as these mechanisms align with the strategy's intrinsic need for stability and predictability. Therefore, the findings suggested that the diagnostic use of management control systems associated with a defender strategy may be more inherent to the strategy's characteristics than contingent upon the level of formal authority within the organization.

The result, indicating a significant positive coefficient in the interaction between informal authority and prospector strategy concerning the interactive use of management control systems, supported Hypothesis H_{4b}. This implied that informal authority played a notable moderating role in strengthening the impact of the prospector strategy on shaping an interactive use of control systems. A plausible explanation is that the prospector strategy, emphasizing innovation, growth, and adaptability, inherently encourages an interactive use of control systems. The decentralized decision-making, flexibility, and openness to change associated with a prospector strategy might be amplified by the influence of informal authority, rendering the impact of informal authority significant in promoting interactive control mechanisms. These findings suggested that organizations pursuing a prospector strategy, with a culture valuing creativity and adaptability, may benefit from leveraging informal authority to enhance the interactive use of management control systems, aligning with the strategy's orientation towards innovation and dynamic responsiveness.

4. CONCLUSION

In summary, the study provided comprehensive insights into the dynamics between organizational strategy, authority structures, and the design and use of management control systems (MCS) in Regional Public Hospital-Business Entity Public Service Agency (RPH-BLUD) organizations. Descriptive statistics revealed that respondents perceived a high level of formal and informal authority, and the MCS tends to be used interactively, with a preference for a 'less bureaucratic' design. The transition from defender to prospector strategy was noted. This research contributes to understanding the interplay between organizational strategy, authority structures, and MCS in the context of RPH-BLUD organizations. The nuanced relationships uncovered shed light on the intricate factors influencing control system dynamics, providing valuable implications for organizational design and strategy implementation in the healthcare sector and beyond.

Hypothesis testing results confirmed the positive influence of defender and prospector strategies on the design and diagnostic use of MCS. The NPM agenda emphasising on enhanced authority aligns with these findings, indicating a strategic coherence between chosen strategies and control frameworks. However, hypotheses involving formal and informal authority as moderating factors in the influence of defender and prospector strategies on control systems design and use yielded mixed results.

Formal authority did not significantly strengthen the impact of the defender strategy on a 'more bureaucratic' control system, suggesting the intrinsic nature of the defender strategy drives this design. Similarly, informal authority's lack of significant influence on 'less bureaucratic' systems under a prospector strategy implies the inherent impact of the strategy on fostering flexibility. Moreover, the diagnostic use of control systems associated with a defender strategy seemed inherently driven by the strategy itself, unaffected by formal authority levels. However, informal authority significantly enhanced the interactive use of control systems under a prospector strategy, emphasizing the importance of leveraging informal authority for dynamic responsiveness.

This study had several limitations that should be acknowledged. First, its generalizability is constrained by the specific context of regional public hospitals with public service agency status (RPHs-BLUD) in Indonesia. Second, the reliance on self-reported data from top management may have introduced bias and limited the comprehensiveness of organizational insights by excluding perspectives from other organizational levels. Third, the cross-sectional research design restricted the ability to draw causal inferences and prevents the examination of the dynamic evolution and reciprocal relationships between strategic choices, authority, and management control system (MCS) design and use over time. To address these limitations, future research should consider longitudinal or panel data approaches that can better capture temporal changes and causal pathways in MCS development within public hospital settings.

Practically, the findings can guide RPH-BLUD organizations in aligning strategies with effective control systems. Academically, the study contributes to literature, offering insights for scholars to explore similar dynamics in different sectors. Policymakers can draw on the research for policy development, especially in healthcare. Identified limitations suggest future research directions, including longitudinal studies, multi-level perspectives, and diverse organizational contexts to enhance the field's applicability and robustness.

5. ACKNOWLEDGEMENTS/FUNDING

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6. CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

7. AUTHORS' CONTRIBUTIONS

Nurkholis Nurkholis: Conceptualisation, methodology, formal analysis, investigation and writing-original draft; **Made Aristia Prayudi:** Conceptualisation, methodology, formal analysis, and investigation; **Endang Mardiaty:** Conceptualisation, formal analysis, and validation; **Nurul Fachriyah:** Conceptualisation, supervision, writing- review and editing, and validation.

8. DECLARATION OF GENERATIVE AI IN THE WRITING PROCESS

In preparing this manuscript, the authors used Grammarly solely as an editorial and language-support tool to improve grammar, sentence structure, clarity, and overall academic readability. Grammarly was not used to develop original research ideas, theoretical arguments, empirical analyses, results, interpretations, or conclusions. All Grammarly-assisted revisions were carefully reviewed and verified by the authors, who retain full responsibility for the accuracy, integrity, originality, and scholarly content of the manuscript.

9. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

The questionnaire data and other relevant research data used in this study are available from the corresponding author upon reasonable request, subject to appropriate confidentiality and data protection considerations.

10. ETHICS STATEMENT

This study involved human participants and was conducted in accordance with the ethical principles of the Declaration of Helsinki. Ethical approval was obtained from the Health Research Ethics Committee, Faculty of Medicine, Universitas Brawijaya, under Ethical Approval No. 168/EC/KEPK-S3/07/2023, dated 24 July 2023. The study involved respondents from hospitals operating as Regional Public Service Agencies (BLUDs). Informed consent was obtained from all participants prior to their participation in the study. The confidentiality and anonymity of respondents were maintained throughout the data collection, analysis, and reporting processes.

11. REFERENCES

- Abernethy, M. A., & Brownell, P. (1999). The Role of Budgets in Organizations Facing Strategic Change: An Exploratory Study. *Accounting, Organizations and Society*, 24(3), 189–204. [https://doi.org/10.1016/S0361-3682\(98\)00059-2](https://doi.org/10.1016/S0361-3682(98)00059-2)
- Abernethy, M. A., & Vagnoni, E. (2004). Power, Organization Design and Managerial Behaviour. *Accounting, Organization and Society*, 29, 207–225.
- Akingbola, K. (2006). Strategic choices and change in non-profit organizations. *Strategic Change*, 15(6), 265–281. <https://doi.org/10.1002/jsc.772>
- Alnoor, A., Khaw, K. W., Al-Abrow, H., & Alharbi, R. K. (2022). The hybrid strategy on the basis of Miles and Snow and Porter's strategies: An overview of the current state-of-the-art of research. *International Journal of Engineering Business Management*, 14, 1–18. <https://doi.org/10.1177/18479790221080214>
- Andrews, R., Boyne, G. A., Law, J., & Walker, R. M. (2009). Strategy formulation, strategy content and performance: An empirical analysis. *Public Management Review*, 11(1), 1–22. <https://doi.org/10.1080/14719030802489989>
- Anthony, R.N. (1965). *Planning and Control Systems: Framework for Analysis*. Harvard University.
- Anthony, Robert Newton, & Govindarajan, V. (2007). *Management Control Systems* (10th ed.). McGraw-Hill.
- Arman, R., Liff, R., & Wikström, E. (2014). The hierarchization of competing logics in psychiatric care in Sweden.

- Scandinavian Journal of Management*, 30(3), 282–291. <https://doi.org/10.1016/j.scaman.2014.01.001>
- Auzair, S. M., & Langfield-Smith, K. (2005). The effect of service process type, business strategy and life cycle stage on bureaucratic MCS in service organizations. *Management Accounting Research*, 16(4), 399–421. <https://doi.org/10.1016/j.mar.2005.04.003>
- Bai, G., Joshi, S., & Krishnan, R. (2023). Healthcare accounting research. In D. Tinkelman & L. M. Parsons (Eds.), *Research Handbook on Nonprofit Accounting*. Edward Elgar Publishing Limited.
- Bedford, D. S., Malmi, T., & Sandelin, M. (2016). Management Control Effectiveness and Strategy: An Empirical Analysis of Packages and Systems. *Accounting, Organizations and Society*, 51, 12–28. <https://doi.org/10.1016/j.aos.2016.04.002>
- Belrhiti, Z., Van Belle, S., & Criel, B. (2021). How medical dominance and interprofessional conflicts undermine patient-centred care in hospitals: Historical analysis and multiple embedded case study in Morocco. *BMJ Global Health*, 6(7). <https://doi.org/10.1136/bmjgh-2021-006140>
- Brinkerhoff, D. (2003). *Accountability and Health Systems: Overview, Framework, and Strategies*. The Partner for Health Reformplus, Abt Associates Inc.
- Chenhall, R.H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28, 127–168.
- Chenhall, Robert H., Hall, M., & Smith, D. (2010). Social capital and management control systems: A study of a non-government organization. *Accounting, Organizations and Society*, 35(8), 737–756. <https://doi.org/10.1016/j.aos.2010.09.006>
- Das, S., & Canel, C. (2023). Linking manufacturing and competitive strategies for successful firm performance: a review and reconceptualization. *Journal of Strategy and Management*, 16(1), 148–172.
- de Harlez, Y., & Malagueño, R. (2016). Examining the joint effects of strategic priorities, use of management control systems, and personal background on hospital performance. *Management Accounting Research*, 30, 1–16. <https://doi.org/10.1016/j.mar.2015.07.001>
- Eldenburg, L. G., Krishnan, H. A., & Krishnan, R. (2017). Management Accounting and Control in the Hospital Industry: A Review. In *Journal of Governmental & Nonprofit Accounting* (Vol. 6, Issue 41). <https://doi.org/https://doi.org/10.2308/ogna-51922>
- Fahlevi, H. (2016). Understanding Why the Role of Accounting is Unchanged in Indonesian Public Hospitals. *Journal of Accounting and Organizational Change*, 12(2), 203–222. <https://doi.org/10.1108/JAOC-03-2014-0020>
- Fahlevi, H., Irsyadillah, I., Indriani, M., & Oktari, R. S. (2021). DRG-based Payment System and Management Accounting Changes in an Indonesian Public Hospital: Exploring Potential Roles of Big Data Analytics. *Journal of Accounting and Organizational Change*. <https://doi.org/10.1108/JAOC-10-2020-0179>
- Felício, T., Samagaio, A., & Rodrigues, R. (2021). Adoption of Management Control Systems and Performance in Public Sector Organizations. *Journal of Business Research*, 124(November 2020), 593–602. <https://doi.org/10.1016/j.jbusres.2020.10.069>
- Finkelstein, S., Hambrick, D. C., & Canella, A. A. (2009). Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards. In *Mycological Research* (Vol. 106, Issue 11). Oxford University Press, Inc.
- Fousiani, K. (2022). Power Asymmetry, Negotiations and Conflict Management in Organizations. In J. Fahed-Sreih (Ed.), *Organizational Conflict - New Insights* (pp. 1–11). Intech-Open Limited.

<https://doi.org/10.5772/intechopen.95492>

- Govindarajan, V. (1988). A Contingency Approach to Strategy Implementation at the Business-Unit Level: Integrating Administrative Mechanisms with Strategy. *Academy of Management Journal*, 31(4), 828–853. <https://doi.org/10.5465/256341>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2018). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hammad, S. A., Jusoh, R., & Ghazali, I. (2013). Decentralization, perceived environmental uncertainty, managerial performance and management accounting system information in Egyptian hospitals. *International Journal of Accounting and Information Management*, 21(4), 313–330. <https://doi.org/http://dx.doi.org/10.1108/IJAIM-02-2012-0005>
- Hammad, S. A., Jusoh, R., & Oon, E. Y. N. (2010). Management Accounting System for Hospitals: A Research Framework. *Industrial Management & Data Systems*, 110(5), 762–784. <https://doi.org/10.1108/02635571011044777>
- Handayani, F., Basri, H., & Fahlevi, H. (2019). Does Increasing Public Hospital Financial Autonomy Improve Performance? A Study of Indonesian Public Hospitals. *Management and Economic Review*, 6(1), 1–13. <https://doi.org/10.24818/mer/2019.06-01>
- Handayani, P. W., Hidayanto, A. N., Ayuningtyas, D., & Budi, I. (2016). Hospital information system institutionalization processes in Indonesian public, government-owned and privately owned hospitals. *International Journal of Medical Informatics*, 95, 17–34. <https://doi.org/10.1016/j.ijmedinf.2016.08.005>
- Janka, M. (2021). Enabling formal MCS design and use: a meta-synthesis of qualitative research. *Journal of Accounting & Organizational Change*, 17(2), 133–163. <https://doi.org/https://doi.org/10.1108/JAOC-01-2019-0002>
- Kirkpatrick, I., Altanlar, A., & Verones, G. (2023). Hybrid professional managers in healthcare: anexpanding or thwarted occupational interest? *Public Management Review*, 25(5), 859–878. <https://doi.org/https://doi.org/10.1080/14719037.2021.1996777>
- Lachmann, M., Knauer, T., & Trapp, R. (2013). Strategic management accounting practices in hospitals: Empirical evidence on their dissemination under competitive market environments. *Journal of Accounting and Organizational Change*, 9(3), 336–369. <https://doi.org/10.1108/JAOC-12-2011-0065>
- Langfield-Smith, K. (1997). Management Control Systems and Strategy: A Critical Review. *Accounting, Organizations and Society*, 22(2), 207–232.
- Lega, F., Rotolo, A., & Sartirana, M. (2022). Dealing with pluralism: the managerial work of CEOs in Italian public healthcare organizations. *BMC Health Services Research*, 22(1222), 1–14. <https://doi.org/https://doi.org/10.1186/s12913-022-08567-1>
- Lunkes, R. J., Naranjo-Gil, D., & Lopez-Valeiras, E. (2018). Management Control Systems and Clinical Experience of Managers in Public Hospitals. *International Journal of Environmental Research and Public Health*, 15(4), 1–9. <https://doi.org/10.3390/ijerph15040776>
- Markus, M. L., & Pfeffer, J. (1983). Power and the design and implementation of accounting and control systems. *Accounting, Organizations and Society*, 8(2–3), 205–218. [https://doi.org/10.1016/0361-3682\(83\)90028-4](https://doi.org/10.1016/0361-3682(83)90028-4)
- Mei, J., & Kirkpatrick, I. (2019). Public Hospital Reforms in China: Towards a Model of New Public Management? *International Journal of Public Sector Management*, 32(4), 352–366. <https://doi.org/10.1108/IJPSM-03-2018-0063>

- Mériade, L., & Rochette, C. (2022). Governance tensions in the healthcare sector: a contrasting case study in France. *BMC Health Services Research*, 22(1), 1–13. <https://doi.org/10.1186/s12913-021-07401-4>
- Meterko, M., Restuccia, J. D., Stolzmann, K., Mohr, D., Brennan, C., Glasgow, J., & Kaboli, P. (2015). Response rates, nonresponse bias, and data quality: Results from a national survey of senior healthcare leaders. *Public Opinion Quarterly*, 79(1), 130–144. <https://doi.org/10.1093/poq/nfu052>
- Miles, R. E., & Snow, C. C. (1978). *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- Morais, L. F., & Graça, L. M. (2013). A glance at the competing values framework of Quinn and the Miles & Snow strategic models: Case studies in health organizations. *Revista Portuguesa de Saude Publica*, 31(2), 129–144. <https://doi.org/10.1016/j.rpsp.2012.12.006>
- Naranjo-Gil, D. (2009). The influence of environmental and organizational factors on innovation adoptions: Consequences for performance in public sector organizations. *Technovation*, 29(12), 810–818. <https://doi.org/10.1016/j.technovation.2009.07.003>
- Naranjo-Gil, D., & Hartmann, F. (2006). How Top Management Teams Use Management Accounting Systems to Implement Strategy. *Journal of Management Accounting Research*, 18, 21–53.
- Naranjo-Gil, D., & Hartmann, F. (2007). Management Accounting Systems, Top Management Team Heterogeneity and Strategic Change. *Accounting, Organization and Society*, 32, 735–756.
- Nartey, E., Aboagye-Otchere, F. K., & Yaw Simpson, S. N. (2020). The Contingency Effects of Supply Chain Integration on Management Control System Design and Operational Performance of Hospitals in Ghana. *Journal of Accounting in Emerging Economies*, 10(2), 207–241. <https://doi.org/10.1108/JAEE-10-2018-0111>
- Nugroho, B. S., Maruf, I. R., Bangkara, B. A., & ... (2022). Understanding Best Practices in Public Health Services and Leadership in Indonesia. *Science ...*, 10(2), 1141–1148. <https://www.midwifery.iocspublisher.org/index.php/midwifery/article/view/474>
- Nurkholis, N., Mardiaty, E., Fachriyah, N., & Prayudi, M. A. (2024). Power Dynamics in Accounting-Related Strategic Decision-Making within Hospital Management: A Narrative Literature Review. *Jurnal Akuntansi Manado (JAIM)*, 5(1), 133–142. <https://doi.org/10.53682/jaim.vi.8827>
- Nurkholis, N., Mardiaty, E., Fachriyah, N., Prayudi, M. A., & Widaninggar, N. (2023). Is It Possible to Achieve A “Fit” of Management Control Practices and Strategies in Indonesia’s Reformed Public Hospitals? *Journal of Accounting and Investment*, 24(2), 272–291. <https://doi.org/10.18196/jai.v24i2.16949>
- Nyland, K., & Pettersen, I. J. (2015). Hybrid Controls and Accountabilities in Public Sector Management: Three Case Studies in a Reforming Hospital Sector. *International Journal of Public Sector Management*, 28(2), 90–104. <https://doi.org/10.1108/IJPSM-07-2014-0085>
- Øygarden, O., Olsen, E., & Mikkelsen, A. (2020). Changing to improve? Organizational change and change-oriented leadership in hospitals. *Journal of Health Organization and Management*, 34(6), 687–706. <https://doi.org/10.1108/JHOM-09-2019-0280>
- Pitcher, P., & Smith, A. D. (2001). Top Management Team Heterogeneity: Personality, Power, and Proxies. *Organization Science*, 12(1), 1–18. <https://doi.org/10.1287/orsc.12.1.1.10120>
- Prayudi, M. A., & Basuki, H. (2014). Hubungan Aspek Power, Penerapan Sistem Pengendalian Administratif, Akuntabilitas, dan Efisiensi Program Jaminan Kesehatan. *Jurnal Akuntansi Dan Keuangan Indonesia*, 11(1), 57–77.
- Prayudi, M. A., Nurkholis, N., Saraswati, E., & Rusydi, M. (2024). Top Management Characteristics, Performance

- Measurement Systems Design and Strategic Change of Reformed Public Hospitals in Indonesia. *Australasian Business, Accounting and Finance Journal*, 18(1), 44–60. <https://doi.org/10.14453/aabfj.v18i1.04>
- Prayudi, M. A., Nurkholis, N., Saraswati, E., & Rusydi, M. K. (2023). Do Vision and Mission Really Matter? The Management Control Experiences of Reformed Public Hospitals in Indonesia. *International Journal of Professional Business Review*, 8(3), e01092.
- Ramli, I., & Iskandar, D. (2014). Control Authority, Business Strategy, and the Characteristics of Management Accounting Information Systems. *Procedia - Social and Behavioral Sciences*, 164(August), 384–390. <https://doi.org/10.1016/j.sbspro.2014.11.092>
- Rusch, S., Lachmann, M., Wilkesmann, M., & Bastini, K. (2019). The effects of entrepreneurial orientation on strategy choice and management control in nonprofit organizations. *Problems and Perspectives in Management*, 17(3), 153–168. [https://doi.org/10.21511/ppm.17\(3\).2019.13](https://doi.org/10.21511/ppm.17(3).2019.13)
- Scalera, F., & Talpová, S. Ž. (2013). Towards an Efficient Level of Centralization in MNEs. *Procedia - Social and Behavioral Sciences*, 75, 112–118. <https://doi.org/10.1016/j.sbspro.2013.04.013>
- Shepherd, N. G., & Rudd, J. M. (2014). The influence of context on the strategic decision-making process: A review of the literature. *International Journal of Management Reviews*, 16(3), 340–364. <https://doi.org/10.1111/ijmr.12023>
- Shortell, S. M., & Zajac, E. J. (1990). Perceptual and Archival Measures of Miles and Snow's Strategic Types: A Comprehensive Assessment of Reliability and Validity. *The Academy of Management Journal*, 33(4), 817–832. <https://doi.org/https://doi.org/10.2307/256292>
- Simons, R. (1995). *Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal*. Harvard Business School Press.
- Yonce, S. K., & Barnes, B. G. (2022). Healthcare Accounting Research: An Analysis, Review, and Suggestions for Future Work. *Journal of Governmental & Nonprofit Accounting*, 11(1), 163–192. <https://doi.org/10.2308/jogna-2021-012>
- Yuan, R., Li, C., Sun, X., & Khaliq, N. (2023). Mixed-ownership reform and strategic choice of Chinese state-owned enterprises. *PLoS ONE*, 18, 1–29. <https://doi.org/10.1371/journal.pone.0284722>



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