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Is it possible to achieve a "fit" of management control practices and strategies in Indonesia's reformed public hospitals?

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Abstract

Research aims: This research aims to investigate the effectiveness of implementing management control practices (MPCs) and examine whether MPC is possible and how MPCs as a package "fit" with the strategic choices of Local Community Service Agency (BLUD) public hospitals (PHs) in Indonesia.

Design/Methodology/Approach: This study applied mixed-method research with a sequential explanatory strategy. Quantitative data were collected through self-administered questionnaires distributed to 29 top management team members of eight BLUD PHs in East Java and Bali, Indonesia. Meanwhile, qualitative data were generated by conducting a semi-structured interview with four selected top management team members of BLUD PHs. The data were then analyzed quantitatively and qualitatively by implementing profile deviation analysis, cluster analysis, ordinal regression analysis, and content analysis.

Research findings: Quantitatively, the researchers found a negative correlation, yet insignificant, between the “misfit” of MCPs and strategy and management control effectiveness. Thus, the “fit” hypothesis was not supported. Qualitatively, the researchers revealed that BLUD PHs extensively used MCPs and employed them in various ways, including cultural, administrative, and dominantly cybernetic controls. Finally, it can be concluded that using cybernetic controls as a dominant practice is unsuitable for the strategy chosen by BLUD PHs in Indonesia.

Practical and Theoretical contribution/Originality: This study expands upon what has already been explored in the management control literature concerning how MCPs might be configured to align with organizational strategy, especially in the context of public healthcare organizations. Practically, the reformed PHs in Indonesia are expected to understand better the structure and characteristics of the BLUD-based financial management environment. It is essential for organizations, as it helps them figure out exactly how their management control practices and organizational strategies fit together.

Research limitation: Due to the low questionnaire and interview participation, mixed-methods research was underutilized in this study.

Keywords: Contingency Fit; Management Control; Strategic Choice; Public Hospitals; Mixed-method Research

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Introduction

Hospital is a type of organization where the New Public Management (NPM) principles are implemented extensively

(Kirchhoff et al., 2019; Macinati, 2010; Mei & Kirkpatrick, 2019; Nyland & Pettersen, 2015). It is because, on average, hospitals account for up to one-third of a country's overall health expenditure (World Health Organization, 2015). The adoption of NPM is manifested by several initiatives to create public hospitals autonomous entities (Nyland & Pettersen, 2015) that apply private sector operational logic (Øygarden et al., 2020) to improve its service efficiency and accountability (Kirchhoff et al., 2019).

In the Indonesian context, similar public health management reform movements have also been running for a long time. Since 2005, government hospitals have gradually transformed into business-like organizations as community service agencies (*Badan Layanan Umum*—BLU) (Fahlevi, 2016; Harmadi & Irwandy, 2018; Mahendradhata et al., 2017). Government Regulation Number 23 of 2005 concerning BLU Financial Management states that the BLU's form and structure will enable government organizations, including public (general) hospitals—PHs, to implement flexible financial management patterns based on the principles of sound business practices to achieve goals more effectively and efficiently.

Despite the tremendous expectations for the benefits of imposing BLU status on PHs, there is empirical evidence of failure to achieve organizational goals due to the ineffectiveness of the management control system (MCS) implemented. Harmadi and Irwandy (2018), for instance, identified issues with cost (input) control as the primary reason for insufficient service quality and efficiency enhancements at Local Community Service Agency (BLUD/*Badan Layanan Umum Daerah*) PHs in Indonesia. Fahlevi et al. (2021) also showed in a recent case study that the MCS applied to BLU PHs in Indonesia was still unable to assist in the fulfillment of congruence of goals between management and medical personnel in response to the introduction of a service finance system based on INA-CBGs. In light of these instances, it is believed that the capabilities of implementing MCS at BLU PHs in Indonesia require further investigation.

For that reason, this research aims to investigate the effectiveness of management control implementation and examine whether MCS is possible and how management control practices as a package "fit" with the strategic choices of Local Community Service Agency (BLUD) public hospitals (PHs) in Indonesia. This research is essential and relevant to do, considering the following points: Firstly, examining the effectiveness of MCS at BLU PHs has become crucial after 20 years of this initiative running in Indonesia. The change in the status of the PHs from previously being technical to a business unit requires management innovation within the organization through adequate and effective MCS implementation (Ministry of Health Regulation Number 63 of 2016). It is also in line with NPM's main agenda in the healthcare sector, which is to promote an increase in the degree of authority and level of independent management control over the mix of inputs, outputs, and the scope of activities of service organizations (Mei & Kirkpatrick, 2019; Panner, 2015).

Secondly, recent research streams on the effectiveness of implementing MCS are going toward understanding and examining the efficacy of "…management control as a package" (Bedford et al., 2016; Grabner & Moers, 2013; Malmi & Brown, 2008). This topic

has been extensively examined in manufacturing businesses, but MCS research in PHs has dominated the investigation of MCS as an "individually-separated part" (Abernethy & Chua, 1996; Naranjo-Gil & Hartmann, 2007; Nyland & Pettersen, 2015). In addition, many scholars argued that the MCS of PHs must be modified owing to NPM reforms (Nyland et al., 2009).

Thirdly, prior research has uncovered empirical evidence of the relationship between the success of MCS and the organizational design used by PHs. These studies significantly cited the typology of strategies by Miles & Snow (1978) but solely focused on two mutually exclusive categories of strategies: defender and prospector (Naranjo-Gil et al., 2008). In reality, NPM changes were shown to have prompted public health service organizations, including PHs, to select combinations to accomplish their goals (Arda, 2020; Cross et al., 2019).

Further, this research contributes to the existing body of knowledge in the management control literature by investigating how MCPs may be set up to support implementing an organization's strategy in the public healthcare sector. Hopefully, Indonesia's substantially reformed PHs will have a firmer grasp on the essentials of the BLUD-based financial management environment. Organizations can also benefit significantly from this since it clarifies the linkage between managerial control and overall strategy.

Literature Review

Management Control as a Package

The concept of management control as a package derives from the following ideas (Malmi & Brown, 2008). First, MCS does not operate in isolation; MCPs are interconnected within a more extensive control system. Second, if these systems are studied separately, it could affect the conclusions regarding the functionality of the MCS suite as a whole. Moreover, MCS theory primarily concerns MCS design to accomplish the desired output. Unfortunately, prior MCS research has concentrated chiefly on formal control systems, so little is known about the impact of other types of controls and if or how these MCPs complement or replace one another in various circumstances. Consequently, a greater understanding of MCS as a package can create a better theory regarding how to build various types of MCP to support the fulfillment of organizational objectives (Malmi & Brown, 2008).

From a systems perspective, management control can also be seen as a package. Based on this approach, decisions on the design of organizational controls will involve two fundamental forms of choice (Grabner & Moers, 2013): (1) choosing an MCP in accordance with a series of contingent aspects faced by the organization and (2) ensuring that the MCP is consistent internally. In particular, it can be stated that MCS is formed when MCP is interdependent, and then the choice of management control design will consider the nature of this interdependence. In contrast, management controls as a

package represent the complete suite of existing MCPs, regardless of whether MCPs are interdependent and/or design choices take into account those interdependencies.

Empirically, Bedford et al. (2016) tested the combination of MCP as a package and a system in different strategic contexts. The study uncovered evidence that different strategies used by organizations (either defenders or prospectors) could produce different sets of MCP combinations regarding the effectiveness of management control achieved. For the strategy-type organization defender, it was found that the effective MCP combination package included diagnostic and rigid accounting control practices and objectively determined incentive scheme practices. Meanwhile, in prospector-type organizations, the MCP combination set that had proven effective included interactive accounting control practices relying on various performance measures, administrative control practices that are organic in nature, and input-oriented cultural control practices. Their research also documented the interrelationships between MCP in each type of strategy. Accounting control practice with diagnostics was revealed to be complementary to mechanistic administrative control practice. In addition, an interactive control practice was also found to be complementary to an organic administrative control practice.

MCS Design, Strategy Choices, and the Effectiveness of MCS in Hospital Organizations

Management control system (MCS) is interpreted in numerous ways in many references. The classic interpretation by Anthony (1965) describes management control as a process carried out by management to ensure the efficiency and effectiveness of obtaining and using resources to achieve organizational goals. Then, Simons (1995) views management control as a medium used by senior managers to implement desired strategies successfully. Besides, Chenhall (2003) defines management control as the joint implementation of management accounting and other forms of control, such as personal control or cultural control, to achieve specific goals. A broader concept of management control was proposed by Mintzberg (1978), which included strategy formulation, or by Merchant & Otley (2007), which also covered the relationship between management control and the implementation of the chosen strategy.

The relationship between MCS and the context of strategy selection follows a series of logical flows: (a) Different organizations have different strategic contexts; (b) Different strategies need different job priorities, critical success factors, skills, perspectives, and attitudes to be carried out effectively; (c) Management control is a measurement system that changes the behavior of the people whose activities are being measured (Carenys, 2010)

On the other hand, the strategy-choice perspective argues that environmental conditions determine organizational behavior and that the choices made by top managers are essential determinants of the structure and processes in organizations (Miles et al., 1978). The decisions include designing structure and management control processes and choosing strategy types of defenders, prospectors, and analyzers. Organizations with a defender operate in stable and narrow product markets and emphasize efficiency rather than innovation (Hammad et al., 2010). The characteristics of organizational markets,

which tend to be stable, are in accordance with their dependence on historical information. In addition, the narrow product domain reduces the need for extensive monitoring of external environmental conditions.

In contrast, prospector-type organizations find and exploit product and market opportunities by monitoring various environmental conditions and events (Miles et al., 1978). The product domain is constantly evolving, and the technology utilized is usually flexible, allowing quick reactions to changing market demands. As a result, external, non-financial, and future-oriented information will suit the needs of managers in this type of organization. Meanwhile, the analyzer-type organization seeks to maintain the stability of the core products and core services while trying to become a leader for several products based on the concept introduced by the prospector-type business (Hammad et al., 2010).

In the hospital context, the implementation of MCS and the choice of organizational strategy have long been found to be closely related (Abernethy & Brownell, 1999; Akingbola, 2006; de Harlez & Malagueño, 2015; Hammad et al., 2010). Naranjo-Gill & Hartmann (2007) researched public hospitals in Spain and documented a positive relationship between the use of the broad scope, interactive MCS and the strategy of prospectors. Hammad et al. (2010) also stated that hospital organizations that had experienced a change in strategic type (from defender to prospector) used budgets interactively. They focused on dialogue communication and learning and thus expect differences in MCPs configured in the MCS and relevant to hospital organizations with different strategic choices. For this reason, the hypothesis in this study is:

***H_1**: The MCS effectiveness has a positive (negative) correlation with the "fit" ("misfit") of strategy and the management control package of BLUD PHs.*

Research Method

This study applied mixed-method research with a sequential explanatory strategy (Cresswell, 2009). The data were collected in the first stage using a questionnaire survey and analyzed quantitatively. The research conducted was a field cross-sectional involving many samples over a certain period. The population was all BLUD public hospitals in East Java and Bali. Meanwhile, the sample was eight public hospitals owned by the government with BLUD status for at least three years, with consideration of the adequacy of time to measure the effectiveness of the implemented management controls. Then, the selected respondents and informants were the top management team of the organization, which, as explained in Presidential Decree 77/2015 concerning Guidelines for Hospital Organizations, consisted of elements of the director, elements of medical services, elements of nursing, elements of medical support, and elements of general administration and finance.

In the second stage, qualitative data collection was carried out through semi-structured interviews with question items built based on the initial results of the quantitative method

(Cresswell, 2009). Interviews were conducted with selected respondents to clarify and dig deeper into the answers obtained in the first phase of the research and gain support for the results obtained from assessing the quantitative data. The results of the interviews, which had been written down in a format called an interview transcript, were then looked at using techniques called content analysis.

Management Control Effectiveness

This variable was defined based on the meaning of management control by Otley & Berry (1980), i.e., as procedures that play a role in maintaining survival through achieving goals, which are related to the coordination and integration of different parts, and which promote adaptation, both to internal and external changes. Thus, effective management control can function to *realize goal alignment*, *adaptability,* and *integration* in the organization. Goal alignment refers to the desire for predictable and efficient achievement of organizational goals. Then, adaptability refers to the capacity of the organization to respond to variations that occur in the external environment and adapt flexibly by behaving innovatively. Meanwhile, integration refers to the realization of coordination between different organizational divisions to complete collective work.

This variable was measured using an instrument (questionnaire) that asked respondents to indicate the importance of each of those three management control functions and how effectively the management control package implemented by the organization accommodated these functions. The single composite value for this variable was then obtained by weighing the magnitude of the effectiveness score against the relative value of the perceived importance of management control functions.

Management Control Practices

This research defined some management control practices to be tested as components in a combined MCS package model. The instrument was adopted from King & Clarkson's (2015) study conducted at public health service organizations in Australia. These management control practices are: 1) Cultural Controls, consisting of outreach, code of conduct, vision and mission statements, dress code, recruit, selection, planning controls, short-term planning, and long-term planning; 2) Cybernetic Controls, comprising budgets, boundaries, non-financial, and reward & compensation; and 3) Administrative Controls, covering rules, positions, organizational committees, chronic disease management, policies, procedures, and meetings.

Organizational Strategy

This variable was defined based on the typology of strategies from Miles & Snow (1978). The sample was separated into different strategy groups using the self-typing. Respondents described each type of strategy (presented without a strategy name tag) and were asked to choose a statement paragraph that accurately elucidated their organizational profile. This study also employed instruments developed by Shortell &

Zajac (1990), which have been applied to the context of hospital administration. The result was a grouping of samples into categories of defenders and prospectors.

Data Analysis Technique

To test the hypothesis, this study used a configuration/contingency approach (Gerdin & Greve, 2004). The configuration approach assumes that only a few fit state points occur between context and achievable structure, by which the organization must then make "quantum jumps" from one fit state to another. In this study, profile deviation analysis (PDA) was used to evaluate the existence of an association between fit status (MCS strategy) and the effectiveness of MCS, which resulted in the empirical development of ideal profile clusters. The fitness level for each organization in each cluster was then calculated based on the deviation of the scores it had on the 39 forms of management control practices from the ideal MCS profile, with the following formula:

$$EucD_j = \sqrt{\sum_s Dist_{js}^2} \quad \text{.......} \quad (1)$$

where $EucD_j$ is the Euclidean distance of the j^{th} organization from the ideal MCS profile,

$$Dist_{js} = (x_{js} - x_{is}) \quad \text{.......} \quad (2)$$

while x_{js} and x_{is}, respectively, are the scores of the j^{th} organization and the average scores of organizations with the best management control effectiveness in the cluster.

In the final stage, this study investigated the relationship between the "fit" and the effectiveness of management control. The cluster analysis performed was a two-stage cluster analysis classifying organizations based on the type of strategy and overall level of effectiveness of the MCS to identify the ideal profile of MCPs empirically. Furthermore, the relationship between the condition of "fit" and the effectiveness of management control was tested using ordinal regression analysis.

Result and Discussion

The Quantitative Phase

This study distributed self-administered questionnaires to 60 top management team members at 15 government hospitals with Local Community Service Agency (BLUD) status in Bali and East Java. The questionnaires were distributed either by direct delivery or collection or through an electronic questionnaire assisted by the Google Forms application. Of these, 29 questionnaires from eight BLUD hospitals were sent back and could be used for further analysis, yielding a usable response rate of 48.33%.

Table 1 Descriptive Statistic

Variables	N	Min	Max	Mean	Std. Dev.
Cultural Controls (Cronbach alpha = 0.880; mean = 4.2484; std. deviation = 0.20506)					
Norms	8	4.00	4.75	4.2917	0.31180
Values	8	4.00	4.75	4.4271	0.28674
Vision and mission statement	8	4.33	5.00	4.7708	0.32043
Vision and mission emphasis	8	3.50	5.00	4.4271	0.49288
Standard Operating Procedures	8	4.00	5.00	4.4375	0.31101
Code of conduct	8	4.00	4.75	4.3333	0.25588
Dress code statement	8	4.33	5.00	4.6458	0.20291
Dress code emphasis	8	4.00	5.00	4.5000	0.33923
Outreach	8	4.00	4.67	4.3958	0.23038
Programs	8	3.75	4.50	4.2292	0.28435
Training	8	1.50	3.00	2.2917	0.60422
Recruitment	8	3.75	4.75	4.3125	0.35843
Monitoring	8	3.50	4.75	4.1667	0.42492
Cybernetic Controls (Cronbach alpha = 0.867; mean = 4.3069; std. deviation = 0.16798)					
Long-range (LR) planning	8	4.25	4.75	4.4375	0.15905
Consulting on (LR) planning	8	4.00	4.50	4.2604	0.23332
Budget emphasis	8	4.00	4.75	4.4062	0.31001
Identification of the KPI	8	4.00	4.75	4.3646	0.22244
Operational (OP) planning	8	4.00	4.50	4.1979	0.22686
Consulting on OP planning	8	4.00	4.50	4.1979	0.22686
Compliance with OP planning	8	4.00	4.75	4.2292	0.28435
Frequently evaluation	8	4.00	5.00	4.4896	0.32562
Reward mechanism	8	3.75	4.75	4.2604	0.32865
Subjective evaluation	8	4.00	4.50	4.2604	0.26888
Formal budget document	8	4.33	5.00	4.6771	0.26517
Evaluate budget realization	8	4.00	4.50	4.2083	0.23146
Feedback for budget evaluation	8	3.75	4.50	4.2083	0.26726
Non-financial targets	8	3.00	4.50	4.1667	0.51946
Importance of financial targets	8	3.67	5.00	4.2396	0.47651
Administrative Controls (Cronbach alpha = 0.841; mean = 4.2718; std. deviation = 0.20151)					
Organization chart	8	4.33	5.00	4.8021	0.30190
Work coordination	8	4.00	5.00	4.4271	0.36850
Role of employers	8	3.00	4.00	3.4896	0.39450
Written description	8	4.00	5.00	4.5208	0.36392
Formal meeting	8	4.00	5.00	4.3958	0.34718
Presence on meeting	8	4.00	4.50	4.2604	0.23332
Participation in meeting	8	4.00	4.75	4.3958	0.29124
Work accordance	8	4.00	4.75	4.3854	0.35056
Forbidden act	8	3.00	4.50	3.9792	0.46022
Compliance system	8	4.00	4.75	4.2604	0.26888
Punishment	8	3.33	4.50	4.0729	0.34629
Strategy	8	2.67	5.00	3.9583	0.90851
MC Effectiveness	8	15.20	22.35	19.7056	2.58357
Valid N (listwise)	8				

Most respondents were male (68.97%), with an average age of 50.1 years in the 36-57 range. Positions in the organization consisted of director (15.4%), deputy director for general administration and finance (23.1%), deputy director for medical services (43.75%), and deputy director for support (17.8%). The average length of tenure was 14.88 years, with the most recent 2.13 years in the current position. In addition, respondents had an educational background in the medical (41.38%), a combination of medical and non-medical (10.35%), and business and management (48.27%).

The descriptive statistic of the variables is presented in Table 1. In general, the level of implementation of MCPs was categorized as high, both in cultural (mean = 4.2484), cybernetic (mean = 4.3069), and administrative (mean = 4.2718). Similarly, the effectiveness of MCS was strong (mean = 19.7056), with a modest tendency to adopt a prospector strategy (mean = 3.9583). All the values were the composite scores of each top management team member's responses per hospital.

Profile Deviation Analysis (PDA) was utilized to test the hypothesis, considering "fit" as an organization's level of appropriateness with an externally given ideal profile (Burkert et al., 2014). Determining the ideal profile began with a hierarchical cluster analysis depending on the organizational strategy. In this regard, the researchers were aware that the sample size in this study was relatively small, but as there are no rules of thumb regarding the minimum sample size required for cluster analysis (Siddiqui, 2013), the researchers set aside the concerns regarding the investigation findings. Moreover, Dolnicar (2002) recommends a minimum sample size of 2^k cases (k = number of variables) for cluster analysis. The eight BLUD PHs cases (with three variables in this study) thus satisfactorily met the threshold.

The first step of cluster analysis, which used the agglomerative approach and the Ward method, as well as the output assessment utilizing the dendrogram (Everitt et al., 2011), produced two clusters (Figure 1). The first cluster comprised four organizations: the first, second, third, and fifth BLUD hospitals. Meanwhile, the second cluster comprised four organizations: the fourth, sixth, seventh, and eighth BLUD hospitals. Based on the first-stage cluster analysis results, the second cluster analysis was performed non-hierarchically using K-means clustering. The independent sample t-test analysis results also supported the formation of the two clusters (Table 2).

Table 2 Results of Non-hierarchical Clustering Analysis and Independent Sample t-test

	QCL_1	N	Mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
Strategy	1	4	4.6250	0.32275	0.16137	0.005
	2	4	3.0425	0.64478	0.32239	

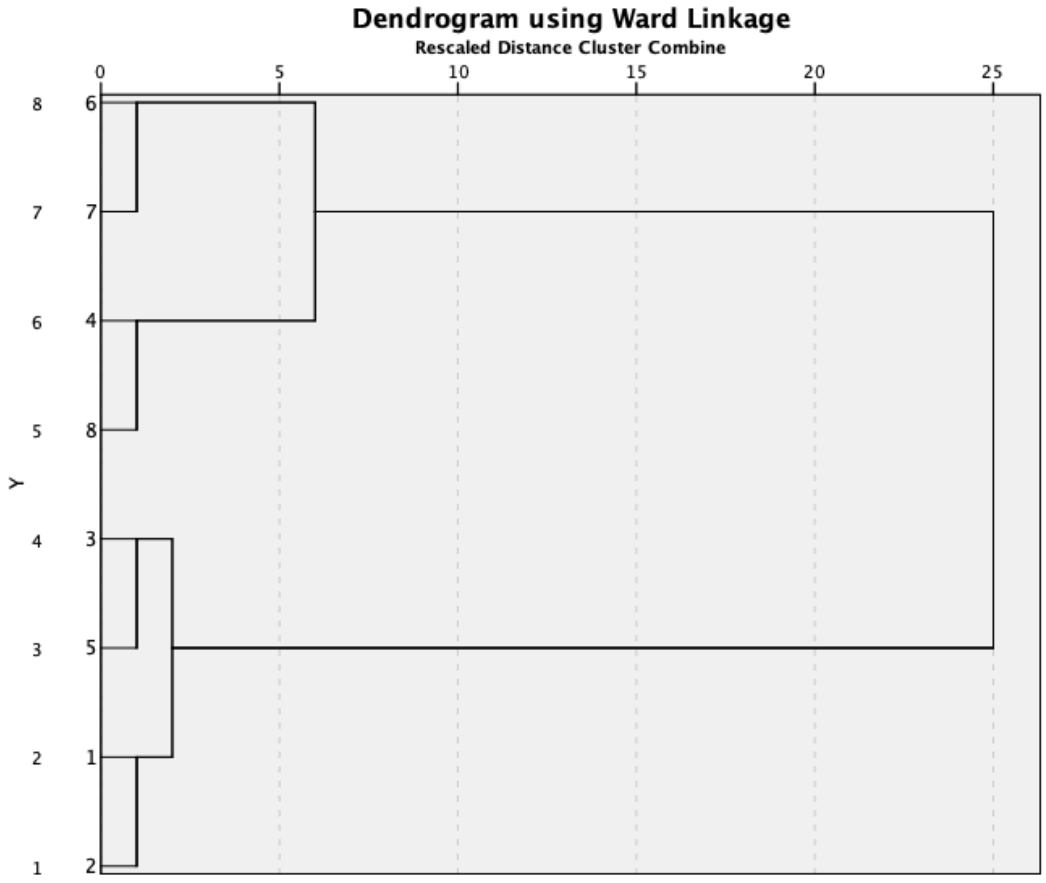

Figure 1 Dendrogram of Hierarchical Cluster Analysis

The next step was determining the ideal profile to be used as a benchmark to calculate the deviation in defining the Euclidian distance value. The organization defined as having the ideal profile was the one that got the highest score on the effectiveness of the management control (top performer). It was the fifth BLUD PHs with a mean of 22.35 within the first cluster that significantly had a higher mean value against the second cluster. By using equations (1) and (2), the Euclidian distance value was obtained, as shown in Table 3.

Table 3 Euclidian Distance Values

j^{th} PHs	Dist_Cult (1)	Dist_Cyb (2)	Dist_Adm (3)	(1)	$(2)^2$	$(3)^2$	Euclidian Distance
1	0.5000	0.0300	-0.0700	0.2500	0.0009	0.0049	0.5058
2	0.9600	0.0000	-0.2500	0.9216	0.0000	0.0625	0.9920
3	0.6900	0.0000	-0.2100	0.4761	0.0000	0.0441	0.7212
4	0.7700	0.2000	0.0800	0.5929	0.0400	0.0064	0.7996
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.4000	-0.0700	-0.3900	0.1600	0.0049	0.1521	0.5630
7	0.8000	0.1700	-0.0400	0.6400	0.0289	0.0016	0.8188
8	0.7200	0.4000	0.1400	0.5184	0.1600	0.0196	0.8355

Finally, the relationship between "fit" and management control effectiveness was investigated using ordinal logistic regression analysis, with management control effectiveness as the dependent variable and Euclidian distance (EucD) as the independent variable. If the EucD coefficient is negative and significant, the hypothesis is supported.

Table 4 presents the results of H_1 testing. In panel A, descriptive statistics for the Euclidian distance (EucD) and the correlation value between the effectiveness of MC and EucD are shown. Hypothesis testing considered two models: model 1, which only included EucD, and model 2, which also considered strategy variables (Panel B). The results indicate that the correlation value between the effectiveness of MC and EucD was negative but not significant, so it did not support the proposed hypothesis. This result is also supported by tests using ordinal logistic regression analysis, which gave a negative coefficient value for EucD that was not significant in either Model 1 (β = -7.550; p = 0.069) or Model 2 (β = -6.478; p = 0.139).

Table 4 Results for the Relation between MC Effectiveness and 'Fit'

	Pooled (n = 8)	Cluster 1 (n = 4)	Cluster 2 (n = 4)
Panel A: Descriptive Statistic			
Euclidian Distance (EucD)			
Mean	0.4127	0.3657	0.4480
Median	0.4281	0.3581	0.4323
Std. Deviation	0.1531	0.2439	0.0580
Minimum	0.1257	0.1257	0.3962
Maximum	0.6133	0.6133	0.5310
Correlation (*MC Effect, EucD)*	-0.520	-0.753	-0.449
	(p = 0.186)	(p = 0.247)	(p = 0.551)
Variables	Model 1	Model 2	
Panel B: Regression results, total sample (n = 8)			
Euclidian Distance (EucD)	-7.550	-6.478	
	(p = 0.069)	(p = 0.139)	
Strategy		1.422	
		(p = 0.114)	
Chi-square	29.207	26.614	
	(p < 0.01)	(p < 0.01)	

The Qualitative Phase

Following the quantitative research phase, additional qualitative data were gathered through semi-structured interviews with four BLUD PHs top management team members who previously participated as respondents. The researchers assigned codes to informants in accordance with the confidentiality agreements (Table 5). The interview questions concerned MCPs implementation, organizational strategy, and the effectiveness of MC. In addition, the questions were derived from the results of the

quantitative phases, which did not support the proposed hypotheses. Each informant was interviewed for approximately two hours at their current workplace.

Table 5 Codification of Informants

No.	Code of Informants	Position	Educational Background	Year(s) in Position
1	D1	Director of PH1	Anesthesia Medical	0.5
2	D2	Director of PH2	Internal Medicine	1.8
3	VDF2	Vice director of general administrative and financial affairs of PH2	Business and Management	3.5
4	D3	Director of PH3	Medical and Public Health	1

Triangulation was used in this study to ensure the validity of the qualitative data collected. The researchers gained support for qualitative statements with evidence that is as independent and varied as is practically possible across a wide range of subjects (Fitzpatrick & Boulton, 1996). The written data were also obtained through planning documents, a code of conduct, and financial and performance reports. Whereas the informants were diverse in position, educational background, and geographic location, they had been identified with the most knowledge about the topic under exploration (Ahlin, 2019).

The Management Control Practices (MCPs) Implementation

Managers require the information supplied by management control systems to enhance efficiency and the quality of service. These systems can include a hospital's strategies and routines to ensure efficient and proper strategy implementation among organizational participants (Lunkes et al., 2018). The researchers discovered that BLUD PHs made extensive use of MCPs and employed them in a variety of different ways, including cultural, administrative, and dominantly cybernetic categories:

> "Our organization's objective is to fulfill its vision and mission [**cultural control**], improving buildings, infrastructure, and medical equipment. To do this, for instance, with relation to infrastructure, we are *creating a new master plan to replace the previous one, which was contained in the long-term plan* [**cybernetic control**] and will be executed *considering the financial condition* [**cybernetic control**] ... In addition, from a personnel standpoint, we are attempting to increase the commitment of medical and paramedical personnel as "servants" of society by implementing *length and width performance measures* [**cybernetic control**], such as at the polyclinic, "what time does the doctor on duty begin standby?", "what time does the specialist doctor begin conducting visits?" and "what time does the doctor regarding the operation have to be performed?" (D1)

> "We always ensure that all parts of the hospital *work together to reach its goals*. We started by *telling people about the vision and mission* [**cultural control**] at various times, such as during flag-raising ceremonies, when *hiring new employees* [**cultural control**], or when the Board of Directors and management *monitor and evaluation* [**cybernetic control**]." (D2)

> "Our current director is more "young at heart," with numerous fresh ideas and an acting style that is direct and nimble. As his companion, I often remind him, especially regarding finances, that all ideas can be implemented as long as they are *guided by regulations and budget availability* [**cybernetic control**]. We also continuously encourage medical personnel to use resources efficiently; for example, if a dose of 10 ccs is sufficient, why should it be more?" (VDF2)

> "At this time, *one of our primary goals is to raise awareness* about the various types of services already offered. One strategy is *reorganizing* [**administrative control**] the PKRS—*Promosi Kesehatan Rumah Sakit* (Hospital Health Promotion) *team,* comprising separate *units*. It will give the team members greater authority and allow them better to communicate the benefits of the hospital to society." (D3)

The BLUD status is identical to the nuances of efficiency and profitability (Mahendradhata et al., 2017), which helps justify cybernetic control's preeminence in implementation. Cybernetic control is intimately tied to the budgetary application and the monitoring of an organization's financial performance (Lueg & Radlach, 2016). For the most part, cybernetic controls rely on cost accounting and budgeting techniques (Carenys, 2010). It is a control mechanism in which objectives are established, and outputs are measurable, the specified goals are contrasted with the results obtained, and, if necessary, corrective actions are taken (Kloot, 1997). This finding is consistent with Fahlevi (2016), which discovered that hospital accounting information is primarily used for planning and reporting purposes, such as determining if the BLU PH expended less or more money than was budgeted.

Organization Strategy

The BLUD designation was supposed to spark an "entrepreneurial governance" model in which hospitals would become autonomous entities (DPPK-BLU, 2009). BLUDs are projected to improve hospitals' services and financial performance, allowing them to provide superior healthcare services in a competitive market (Harmadi & Irwandy, 2018). The BLUD's financial flexibility allows hospitals to innovate, swiftly respond to the needs of their patients, and provide services that are unique to their communities (Mahendradhata et al., 2017). To this research's findings, BLUD PHs typically implemented strategies that resulted in the addition of new services, medical devices, buildings, and medical personnel. It was revealed as a result of the following interview findings:

> "In response to this change in status (BLUD), we are leveraging the flexibility of financial management to implement strategic plans for the *opening of the province's largest cancer treatment center*. Obviously, it is accompanied by the *provision of medical personnel and supporting infrastructure to this unit*." (D1)

> "Our primary objective is *to recruit medical specialists*. Similarly, we provide financial assistance to some potential general medical staff members *to encourage them to continue their specialist courses*." (VDF2)

> "Thus, now that we [the hospital] have achieved BLUD status, we want *to expand* further. For example, the hospital previously lacked the infrastructure and equipment to execute

> the endoscopic approach. Likewise, we previously only had HCU (High Care Unit) room facilities, but today we now have ICU (Intensive Care Unit) and ICCU (Intensive Cardiology Care Unit) rooms." (D3)

Therefore, BLUD PHs' strategy in this study was prospector-based. Prospectors are known for their ability to spot and capitalize on emerging markets and product categories; they have a strong focus on the marketplace and a penchant for innovation; they steer clear of making permanent investments in any particular technological process (Miles et al., 1978). In the hospital context, the prospector strategy was proven superior to other strategies in terms of profitability (Helmig et al., 2014). This finding confirms Naranjo-Gil & Hartmann (2007) and Naranjo-Gill (2015), which found that reformed PH is increasingly directing itself to implement a strategy similar to that of a prospector.

The Management Control (MC) Effectiveness

The researchers adopted the definition of effective management control as one that can function to *realize goal alignment*, *adaptability,* and *integration* in the organization. As such, the researchers inquired how the organization resolved disputes between departments within the organization or when members of a particular department had varying viewpoints on the best way to accomplish a given objective. As informants stated:

> "We have now established a committee called the Therapeutic Pharmacy Committee (*Komite Farmasi Terapi*), which examines suggestions for the provision of particular medications not listed on the national formulary list for the benefit of patient safety. By engaging with this committee, we could *reach a consensus* on the relative efficacy of generic and manufacturer drugs included on the national formulary list against patent medications." (D1)

> "There was once a dispute between a cardiologist and an internal medicine specialist over the patient's illness diagnosis. In addition to being associated with the scientific sector's ego, it turns out that tracing this leads to claims for the provision of service fees that will be received later. We, the management, therefore, ensure that the *financial incentives* are distributed equitably based on the level of service provided by each of these specialist physicians." (D2)

> "We are aware that the medical field is fraught with uncertainty; for instance, during the COVID-19 pandemic, all units in this hospital hoped to be given purchasing priority for Personal Protective Equipment. In this circumstance, the availability of financial resources is also problematic. Therefore, we circumvent this by reducing the number of medical personnel on duty in a single day. In addition *to adjusting to the available budget*, this measure aims to *improve the efficacy of patient care*." (VDF2)

The researchers, hence, conclude that the MCS was, to some extent, successfully implemented across all BLUD PHs observed. It is clear that informal, interactive communication can be used to uncover the root causes of conflict and discontent amongst employees and groups within an organization. Once the cause of the issue has been determined, formal MCPs, such as establishing new departments or arranging rewards systems, can be implemented to bring about the desired changes. This finding

aligns with Ferreira-Da-Silva et al. (2012), who reported that therapeutic protocols, which are the result of team consensus, were perceived as one of the cost-controlling tools limiting the autonomy of the doctors, even though the doctors were aware of the advantages of these tools from an economic, organizational, and professional standpoints.

Discussion: Management Control Practices (MCPs), Organization Strategy, and Management Control (MC) Effectiveness

The study found that no “fit” was achieved between MCPs and strategy since their relationship had no significant correlation with and effect on MC effectiveness. In addition, it was discovered that BLUD PHs dominantly used cybernetics controls (planning and budgeting, reward mechanism, and others) to maintain employee behavior. Further analysis revealed a positive (*Pearson Correlation:* 0.764) and significant (p = 0.027) correlation between the strategy and implementation of cybernetics MCPs—but not for other controls. These results indicate increased use of cybernetic control and a change in strategy from defender to the prospector.

It is reasonable, therefore, to expect that BLUD PHs in Indonesia seek to accommodate financial management flexibility after BLUD status by implementing a prospector strategy and predominantly using cybernetic MCPs to ensure the achievement of new “profit-oriented” and “cost-containment” organizational goals promoted by the reform (Pettersen & Nyland, 2011). In addition, the Indonesian DRGs (INA-DRGs), a prospective payment system, are also part of the country's hospital reforms (World Bank, 2020). When the DRG-based hospital payment system is used, it gives hospitals incentives and tools to control each patient's costs (Fahlevi, 2016). Cybernetic controls were the most critical part of the case-mix project as it moved from having separate financial and non-financial controls to having a mix of both (Li, 2021).

As Simons (1991) argues, the design and use of MCPs concerning organizational strategy reflect the relative importance of two objectives: monitoring strategy implementation and learning about what he calls "strategic uncertainties." This term refers to the perceived uncertainty in strategically essential sectors (Ebrahimi, 2000). Once strategic uncertainties are well-understood and learning more about them is unnecessary, the MCPs are primarily used to monitor strategy implementation. Otherwise, when managers do not fully understand strategic uncertainties, and it is crucial to learn more about them, they use the MCS to draw the organization's attention to new problems and opportunities (Simons, 1991).

In this research setting, the top management teams were uncovered to have a relatively low understanding of the contextuality of the BLUD PHs' financial management patterns and the strategic issues that could potentially arise. It is implied by the statement of one informant:

> "…the actual status of the BLUD that we received is still unclear; on the one hand, we are given flexibility in financial management, but the local government still determines the

> number of revenue and expenditure budget items. [Also], … not to mention regulations about BPJS *Kesehatan—Badan Pengelola Jaminan Sosial Kesehatan* (national health insurance) rates, tiered referral systems, and others, which frequently and abruptly change." (D1)

The dominant use of cybernetics controls, thus, seems problematic. Despite its learning features, cybernetics controls can be highly formalized, and the more formalized a control system is, the more likely it is that pseudo-control will be obtained rather than real control (Hofstede, 1981). Besides, the cybernetic model lacks consistency in real and intended results and corrective action and can be perceived not only as an objective regulator of actions to achieve goals but also as one individual or group dominating others in an organization (Collier & Agyei-Ampomah, 2006).

Further, the researchers consider that, during the transition to a new financial management arrangement, BLUD PHs in Indonesia opted for MCPs that were less suited to the distinctive features of their operational environment. In fact, the BLUD status is expected to improve the organization's financial performance and the quality of the services it offers effectively and efficiently (Mahendradhata et al., 2017). Unfortunately, it is argued that cybernetic controls are no longer adequate when accomplishing objectives other than maximizing profits (Lueg & Radlach, 2016). It is also contended by Visser (2016) that even though the new public management encourages the use of cybernetic MC and output control, such quantitative controls may not be appropriate in a public setting. This finding is consistent with Nyland & Pettersen (2004), who found that strategic uncertainties faced by US hospitals were better handled face-to-face and through frequent, informal dialogues, not by imposing economic responsibility.

Conclusion

It is concluded that the transition of public hospitals (PHs) in Indonesia from technical units to business units in BLUD status has prompted organizations to pursue innovative strategies—prospector. However, BLUD PHs were found to be failing in their focus on selecting specific types of management control practices (MCPs) that could adequately accommodate the implementation of these strategic choices. It subsequently had the consequence of not achieving a "fit" status between the MCPs and organizational strategy and, as a result, could not influence the effectiveness of MC implementation in the organization.

Further, this study extends what has already been addressed in the management control literature regarding how MCPs can be set to fit with organizational strategy, particularly in the context of public healthcare organizations. The researchers provide evidence to support the contention made by Van der Stede (2000) that the association between prospector (differentiated) strategy and tight and formal control does not have an immediate and unquestionable effect on organizational performance. This study also confirms Bedford et al.'s (2016) finding that not all MCPs found to be independently linked

with organization benefits are entirely related to ensuring optimum control outcomes when analyzed as part of an MCP package.

The findings of this study also indicate that BLUD PHs had a limited grasp of the unique aspects of financial management in the BLUD format. Thus, it is anticipated that hospital management will be able to participate in more intensive training related to the management of the BLUD organization. In addition, the excessive use of cybernetic controls relative to other management control practices suggests an inappropriate emphasis on hospital management. As the hospital is dominated by professional (medical) personnel, an interactive and informal approach will be more effective in directing the behavior of its medical staff than a diagnostic and formal one.

This study is not without limitations. Due to the low participation in both the questionnaire and the interview session, the use of mixed methods research in this study was still underutilized. The most significant obstacles encountered in this study concerned the availability of time and the willingness of respondents and informants to take part. In future research, it may be possible to utilize more collaborative strategies to generate a higher overall response and participation.

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