

**OPTIMIZING LEVERS OF CONTROL WITHIN MANAGEMENT
CONTROL SYSTEMS TO STRENGTHEN EMPLOYEE PERFORMANCE
IN BALI'S VILLAGE CREDIT INSTITUTIONS (LPDs)**

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ABSTRACT

This study aims to analyze the influence of the four main components of the Levers of Control framework developed by Simons—Belief Systems, Boundary Systems, Diagnostic Control Systems, and Interactive Control Systems—on organizational performance in Village Credit Institutions (LPD) in Bali. LPDs play a strategic role in strengthening the traditional village economy, yet they face performance and governance challenges amid increasing competition in the financial services industry. The study employs a quantitative approach using random sampling techniques based on Krejcie and Morgan's (1970) formula. From a population of 697 healthy-category LPDs, 273 questionnaires were distributed and 248 were analyzed using the Partial Least Squares (PLS) method to examine the relationships among variables. The findings show that Belief Systems and Diagnostic Control Systems do not have a significant effect on organizational performance, indicating that organizational values and performance measurement systems have not been effectively internalized into work behavior or decision-making processes. In contrast, Boundary Systems and Interactive Control Systems have a positive and significant effect on organizational performance. Clear rules and boundaries strengthen discipline and accountability, while two-way communication between leaders and employees enhances innovation, participation, and adaptability to changes in the business environment.

Keywords: Management Control Systems, Levers of Control, Organizational Performance, LPD Bali

I. INTRODUCTION

Establishing a business entity requires the presence of clear organizational objectives as a fundamental component. Achieving these objectives demands strong collaboration among all individuals involved in the organization (Yudha et al., 2023). Therefore, a Management Control System (MCS) is needed as a tool to help organizations achieve their predetermined goals (Gunawan et al., 2022). According to Maharani (2021) and Halimatussadiah (2020), a management control system aims to provide information that supports decision-making, planning, and performance evaluation. Through such a system, organizational members can be aligned with the company's vision and guided to act in accordance with established strategies (Pavlatos, 2021).

One widely used model within management control systems is the Levers of Control framework developed by Simons (Haileleul, 2021). This model is designed to assist organizations in analyzing and determining when and how to apply various control levers in a dynamic business environment to achieve organizational objectives and strategies (Akroyd, 2020; Outley, 1999). The Levers of Control

consists of four key components: (1) Belief Systems, which aim to build core values and organizational culture that motivate and guide employee behavior; (2) Boundary Systems, which establish rules and limits to ensure that employee actions remain within acceptable parameters; (3) Diagnostic Control Systems, which serve as performance measurement tools that help managers monitor the achievement of corporate goals; and (4) Interactive Control Systems, which facilitate interaction between managers and employees in discussing strategies and innovations to respond to changes in the business environment (Beusch, 2022; Roos, 2020).

However, the implementation of management control systems often faces various challenges. Common issues include inadequate managerial direction, low employee motivation, and limited individual capability in understanding and executing the system. Moreover, increasing global business competition presents an additional challenge for organizational leaders in designing more effective strategies to achieve competitive advantage (Baines & Langfield-Smith in Jessica Fellita, 2017; Oliveira et al., 2021).

To address these challenges and ensure organizational survival and growth amid escalating competition, optimizing employee performance becomes crucial. According to Simamora in Fellita (2017), employee performance is measured by the extent to which individuals meet the requirements of their job. Therefore, business entities must implement effective management control systems to enhance employee productivity. When properly implemented, such systems can drive employees to work more optimally and steer the organization toward achieving its strategic objectives.

One example of an institution that continues to survive amid increasing competition in the financial services industry is the Village Credit Institution (LPD) in Bali. LPDs hold the vision of strengthening traditional village economies while remaining competitive in the banking and microfinance industries. Currently, only 46% of LPDs in Bali are classified as healthy, while the remainder fall into less favorable categories. This phenomenon highlights the need to understand how LPDs address business challenges, maintain competitiveness in a dynamic economic environment, and balance employee performance through the implementation of management control systems, particularly in operational areas.

This study also focuses on how LPDs manage budgets and resources effectively so that they can be optimally utilized in supporting the achievement of strategic institutional goals. Furthermore, this research seeks to explore the extent to which management control systems function in creating a professional and transparent work environment and enhancing human resource performance, especially in operational divisions.

Thus, this study is expected to provide insights into the importance of management control systems in improving operational effectiveness and efficiency within LPDs, as well as assisting these institutions in responding to challenges arising from digitalization and increasingly dynamic global competition.

II. LITERATURE REVIEW

Management Control Systems (MCS) refer to a set of formal and informal mechanisms designed to help organizations achieve their objectives by aligning individual behavior with organizational strategies. According to Merchant and Van der Stede (2017), MCS ensure that employee activities remain consistent with the

organization's interests, whether through control of results, actions, or values. In the context of community-based financial institutions such as Village Credit Institutions (LPD), MCS function not only as monitoring tools but also as instruments for strengthening governance, accountability, and institutional sustainability.

Simons (1995) introduced the Levers of Control (LoC) framework, which explains how managers balance the need for innovation with the need for organizational stability. This framework consists of four main components: Belief Systems, Boundary Systems, Diagnostic Control Systems, and Interactive Control Systems. Together, these components create a balance between creative freedom and organizational discipline.

Belief Systems represent the set of organizational values and beliefs communicated to motivate and guide employee behavior. When values and vision are consistently communicated and supported by leadership actions, they strengthen employee commitment and loyalty. However, when they exist merely as slogans without managerial reinforcement, their effectiveness diminishes (Widener, 2007). In the context of LPDs, internalizing organizational cultural values is essential for fostering social responsibility and trust-based work ethics.

Boundary Systems serve to restrict undesirable behaviors through rules, policies, and codes of conduct. These systems provide guidance to ensure that individuals operate within strategic organizational limits and avoid deviations. Marginson (2002) found that clear boundaries enhance discipline and reduce operational risk. In financial institutions such as LPDs, boundaries can take the form of credit policies, internal audit mechanisms, and compliance procedures that uphold accountability and institutional integrity.

Next, Diagnostic Control Systems are used to monitor outcomes and compare them with predetermined targets. These systems encourage efficiency and focus on performance achievement. However, findings by Henri (2006) and Oliveira et al. (2021) suggest that diagnostic systems may become ineffective when they are overly administrative and fail to promote learning and innovation. In the case of LPDs, financial and performance reporting that is not followed by strategic analysis can hinder the optimal functioning of diagnostic systems.

In contrast, Interactive Control Systems emphasize two-way communication between leaders and employees to discuss strategic uncertainties, share ideas, and adjust strategies in response to environmental changes. These systems create a participatory work culture that reinforces innovation and organizational learning (Simons, 2000; Beusch, 2022). Within LPDs, open communication among managers, staff, and village communities is crucial for building trust and maintaining competitive advantage.

The relationship between the four components of the Levers of Control and organizational performance is complex and context-dependent. Previous studies (Auzair & Langfield-Smith, 2005; Pavlatos, 2021) conclude that the effectiveness of MCS depends on the alignment of the system with strategy, culture, and environmental uncertainty. Therefore, a combination of strong boundary systems and adaptive interactive systems is considered effective in balancing control and innovation.

In the current era of digitalization and global competition, LPDs in Bali must redesign their management control systems to move beyond administrative compliance and toward fostering collaborative culture and continuous learning. By

integrating local cultural values, modern governance principles, and information technology, MCS based on the Levers of Control framework can serve as a foundation for improving organizational performance and ensuring the sustainability of traditional financial institutions in the digital economy era

III. RESEACRH METHOD

This study employs a quantitative approach aimed at analyzing the influence of the four main components of the Levers of Control framework (Belief Systems, Boundary Systems, Diagnostic Control Systems, and Interactive Control Systems) on organizational performance in Village Credit Institutions (LPD) in Bali. The quantitative approach was selected because it allows researchers to measure the relationships among variables objectively, systematically, and in a manner that can be generalized through statistical analysis.

This research is categorized as causal-associative research, which seeks to examine the effects or causal relationships between the independent variables (the components of the Levers of Control) and the dependent variable (organizational performance). The analysis of relationships among variables was conducted using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS), which is considered appropriate for testing models involving multiple latent constructs with reflective indicators.

IV. RESULT AND DISCUSSION

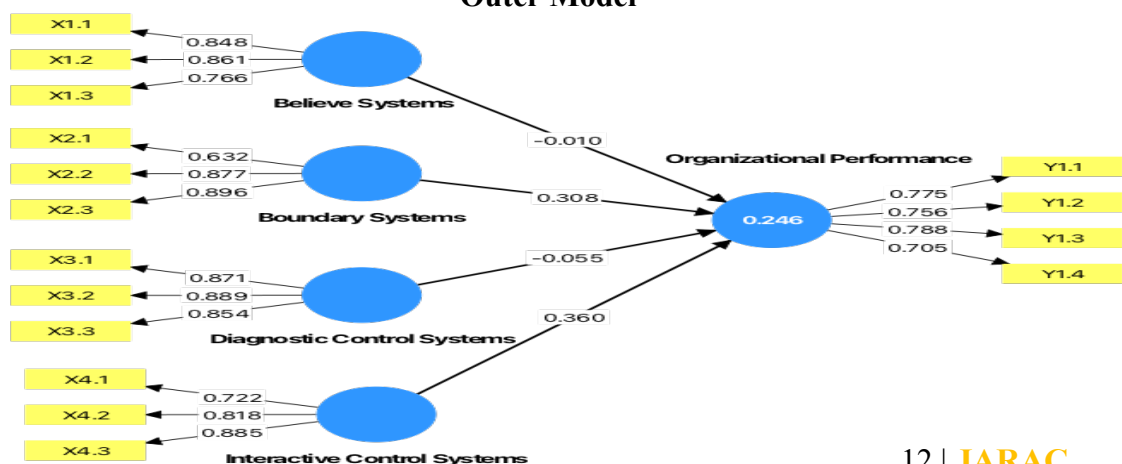
4.1 Measurement of Model Analysis

This study applies the Krejcie and Morgan (1970) formula to determine the required sample size. From a population of 697 healthy-category LPDs in Bali, 273 questionnaires were distributed, and 248 valid responses were obtained and used for further analysis.

The initial stage of analysis involved evaluating the measurement model, which aims to assess the extent to which the indicators (survey items) used in the study are capable of measuring latent constructs—variables that cannot be directly observed, such as perceptions, attitudes, or satisfaction. This study employs a reflective measurement model, meaning that the indicators are manifestations or reflections of the underlying latent constructs.

Figure 1 presents the evaluation of the measurement model (outer model) used in this study.

Figure 1.
Outer Model

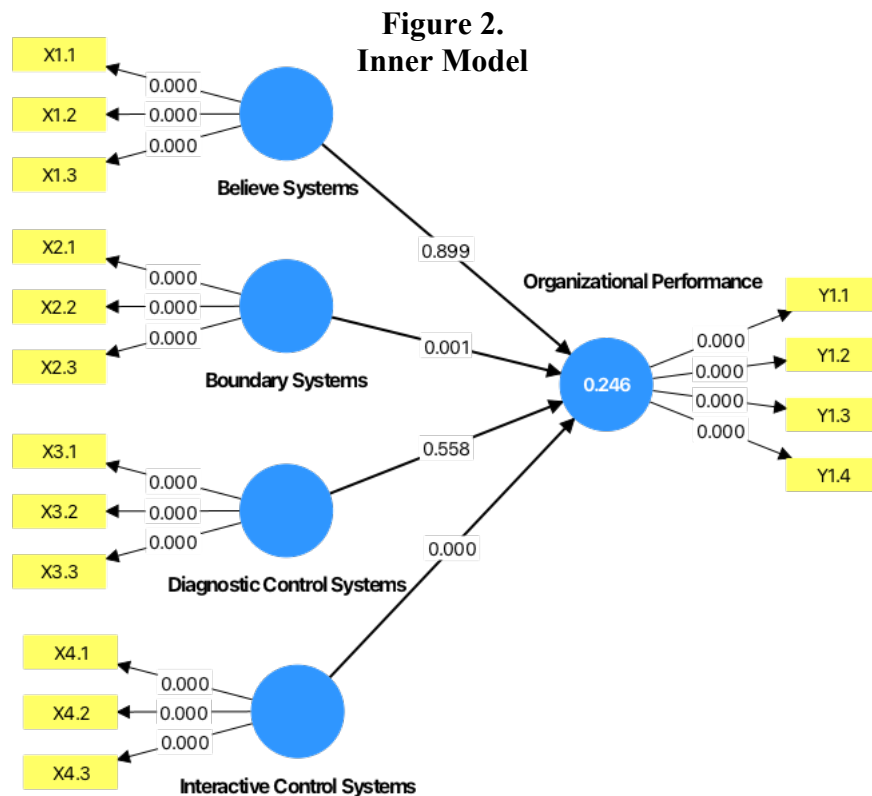


Based on the evaluation of the measurement model, most indicators show outer loading values above 0.70, indicating strong convergent validity. However, one indicator presents a substantially low loading value (< 0.60) and therefore must be removed from the model—specifically, an indicator under the Belief Systems construct.

The discriminant validity test results also show that the Average Variance Extracted (AVE) value for the organizational performance variable is below 0.50. Consequently, the indicator with the lowest outer loading was eliminated to improve the validity of the construct.

4.2 Structural Model Analysis

The adjustments made have resulted in a more robust measurement model, as it now meets the required validity standards. This ensures the reliability and stability of the instruments used in this study. The structural model (inner model) is presented in Figure 2.



The results of the discriminant validity test presented in Table 2 show that the Average Variance Extracted (AVE) values for all variables—Management Control Systems, Belief Systems, and Organizational Performance—are above the threshold of 0.50. This indicates that the constructs in the research model possess adequate discriminant validity. Essentially, this confirms that each variable is unique and able to capture distinct conceptual dimensions within the research framework.

AVE values exceeding 0.50 also suggest that the latent variables explain a substantial proportion of the variance in their respective indicators, thereby reinforcing the robustness and reliability of the measurement model. These findings further strengthen the construct validity, ensuring that the constructs are suitable for

evaluating the hypothesized relationships in the study. This also guarantees the stability and reliability of the measurement instruments used in the research.

Table 1.
Path Coefficient

Hypothesis	Coefficient	T Statistics	P Values	Conclusion
Believe Systems -> Organizational Performance	-0,010	0,126	0,899	Not Accepted
Boundary Systems -> Organizational Performance	0,308	3,409	0,001	Accepted
Diagnostic Control Systems -> Organizational Performance	-0,055	0,587	0,558	Not Accepted
Interactive Control Systems -> Organizational Performance	0,360	5,712	0,000	Accepted

Sources: data processed (2025)

Table 1 presents the path coefficient results used to test the hypotheses formulated in this study. The findings indicate that Hypothesis 1, which posits that Belief Systems influence organizational performance, is not supported. This is evidenced by a coefficient value of -0.010 , a T-value of 0.126 , and a P-value of 0.899 , indicating no significant effect. Hypothesis 2, which states that Boundary Systems have a positive effect on organizational performance, is supported. The results show a coefficient of 0.308 , a T-value of 3.409 , and a P-value of 0.001 , demonstrating a positive and statistically significant relationship. Hypothesis 3, proposing that Diagnostic Control Systems positively affect organizational performance, is not supported. The coefficient of -0.055 , T-value of 0.587 , and P-value of 0.558 indicate that this relationship is not statistically significant. Hypothesis 4, which asserts that Interactive Control Systems positively influence organizational performance, is supported. The results reveal a coefficient of 0.360 , a T-value of 5.712 , and a P-value of 0.000 , confirming a strong and significant positive effect.

4.3 Discussions

Effect of Belief Systems on Organizational Performance

The findings indicate that belief systems do not have a significant effect on organizational performance. The values and vision communicated by management have not been internalized into employees' work behavior. Many organizations treat values merely as formality—appearing in slogans and documents—without translating them into daily practices. This condition is further exacerbated by bureaucratic culture that restricts participation and open communication. As a result, belief systems lose their role as a driver of performance.

In addition, the absence of supporting mechanisms such as reward systems, training, and leadership role modelling prevents organizational values from transforming into work motivation. Overall, belief systems are only effective when values are strongly internalized, integrated with other control mechanisms, and reinforced by consistent leadership.

Effect of Boundary Systems on Organizational Performance

The results demonstrate that boundary systems have a significant effect on organizational performance. Clear rules, policies, and codes of conduct help guide behavior, strengthen discipline, and maintain alignment with organizational goals. Formal boundaries create a balance between creative freedom and accountability for

risk. Employees understand what they are permitted and not permitted to do, leading to enhanced efficiency and effectiveness.

Moreover, boundary systems reinforce ethical culture, accountability, and interdepartmental coordination. When applied consistently, these systems not only prevent undesirable behavior but also foster a professional and high-integrity work environment that directly contributes to improved performance.

Effect of Diagnostic Control Systems on Organizational Performance

The results show that diagnostic control systems do not have a significant effect on organizational performance. Performance measurement systems are often used merely as administrative obligations without being followed by analytical review or strategic improvement. Performance reports stop at documentation rather than becoming learning tools.

Lack of employee involvement makes the system top-down, generating pressure rather than motivation. Furthermore, irrelevant performance indicators cause measurement results to fail to reflect actual conditions. Without integration with interactive control systems—which promote two-way communication—diagnostic systems lose their driving force and fail to contribute meaningfully to organizational improvement.

Effect of Interactive Control Systems on Organizational Performance

The study finds that interactive control systems significantly influence organizational performance. Two-way communication between managers and employees creates an open, participative, and adaptive work environment. These systems not only monitor performance but also encourage dialogue, innovation, and continuous learning.

Employee involvement in planning and evaluation increases ownership and commitment toward organizational goals. Routine interactions allow for early detection of problems and faster, higher-quality decision-making. Supported by transparency and trust, interactive control systems strengthen motivation, innovation, and the organizational resilience necessary for sustainable performance.

V. CONCLUSION AND RECOMMENDATION

This study aims to analyze the effect of the four main components of Simons' Levers of Control—Belief Systems, Boundary Systems, Diagnostic Control Systems, and Interactive Control Systems—on organizational performance within Village Credit Institutions (LPDs) in Bali. Using Partial Least Squares (PLS) analysis on responses from 248 participants, the study finds that not all management control system components significantly affect performance.

The results indicate that Belief Systems do not significantly influence organizational performance. The values, vision, and beliefs communicated by management have not been fully internalized into employees' daily work behavior. These value systems tend to function symbolically, remaining at the document level without tangible implementation. Without leadership role modelling and proper reward mechanisms, belief systems lose their strategic influence.

Conversely, Boundary Systems demonstrate a positive and significant effect on organizational performance. Clear rules, policies, and behavioral boundaries provide direction, reinforce discipline, and ensure alignment with organizational strategy. For LPDs, strict boundary systems serve as a fundamental governance mechanism for maintaining credibility and accountability.

Diagnostic Control Systems, however, do not significantly influence organizational performance. This suggests that measurement and evaluation systems are still used administratively rather than being leveraged for strategic decision-making. Limited employee participation and irrelevant indicators weaken the system's contribution to performance improvement.

Interactive Control Systems exhibit a strong and significant positive effect. Regular dialogue, strategic discussion, and employee involvement in decision-making foster collaboration, innovation, and adaptability—essential capabilities in dynamic financial environments.

Overall, the findings confirm that the effectiveness of Management Control Systems in LPDs depends on the combination of strong boundary systems and participative interactive systems. Organizational performance is shaped not only by formal controls but also by the organization's ability to create open communication and a culture of continuous learning. Integrated and consistently implemented control systems are therefore key to enhancing performance, operational efficiency, and competitiveness.

Based on these findings, several efforts are needed to strengthen the implementation of management control systems: (1) Strengthening Belief Systems, organizations should emphasize internalizing core values so that the belief system goes beyond slogans and becomes a real guide for daily work behavior. Training, cultural development activities, and leadership role modelling are essential to support this process; (2) Enhancing Boundary Systems, consistent application of rules and policies is critical. Clear procedures and fair implementation of sanctions or rewards will reinforce discipline and improve accountability; (3) Optimizing Diagnostic Control Systems, performance data must be used as a basis for strategic evaluation and continuous improvement rather than merely fulfilling administrative requirements. Integrating information technology can facilitate data analysis and evidence-based decision-making; (4) Strengthening Interactive Control Systems, management should promote open and participative communication. Regular discussion forums, coordination meetings, and evaluation sessions can serve as platforms for sharing ideas and addressing issues collectively.

Finally, the four control systems should be integrated into a complementary framework. Synergy between values, boundaries, measurement, and interaction will create the right balance between control and flexibility—between compliance and innovation. Strengthening these dimensions will enable LPDs in Bali to enhance organizational performance sustainably, improve governance, and maintain competitiveness in both local and global financial landscapes.

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