



Internal Control System and Its Influence on Organizational Effectiveness: Case Study of a Village Credit Institution (LPD) in Tabanan Regency

Ida Bagus Anom Yasa¹, I Ketut Sukayasa²,
Ni Made Mega Abdi Utami³, I Made Sudana⁴, and Ni Komang Swasti Dewi⁵

^{1,2,3,4,5}Accounting Department, Politeknik Negeri Bali, Bali, Indonesia
idabagusanomyasa@pnb.ac.id

Abstract. Internal control is essential to corporate governance, especially with the increasing use of information technology and globalization. Poor internal control mechanisms, on the other hand, create increased operational inefficiencies, resulting in theft, loss of revenue, and fraudulent conspiracies. An effective internal control system assists a company in achieving its goals, providing reliable financial information, and safeguarding assets and other critical resources. It also helps monitor and evaluate an organization's effectiveness to ensure efficiency and effectiveness. This research examines the Internal Control System and its influence on organizational effectiveness. The study was carried out at the Village Credit Institution (LPD) in Tabanan Regency, with LPD employees and managers participating as respondents. Data was collected using a questionnaire, analyzed using variance-based SEM, and processed using Partial Least Square (PLS). The research results found that the control environment, control activities, risk assessment, and monitoring activities positively and significantly affect organizational effectiveness. Meanwhile, information and communication do not significantly affect organizational effectiveness in LPD Tabanan Regency.

Keywords: Influence, Internal Control System, Organizational Effectiveness

1 Introduction

The increasing number of fraud cases in recent years has led to the importance of internal control systems in corporate governance (Lämsiluoto et al., 2016). The Committee of Sponsoring Organizations of the Treadway Commission (COSO) emphasizes the vital importance of internal control in business management, particularly in goal setting, planning, organizing, implementing, coordinating, and controlling (Vu & Nga, 2022). An effective internal control system can provide reliable financial information, safeguard assets and other critical resources, and assist in monitoring and evaluating organizational performance (Otoo et al., 2023; Zhou et al., 2016).

© The Author(s) 2024

A. A. N. G. Sapteka et al. (eds.), *Proceedings of the International Conference on Sustainable Green Tourism Applied Science - Social Applied Science 2024 (ICoSTAS-SAS 2024)*, Advances in Economics, Business and Management Research 308,

https://doi.org/10.2991/978-94-6463-622-2_13

Poor internal control mechanisms, on the other hand, create increased operational inefficiencies, resulting in theft, loss of revenue, and fraudulent conspiracies (Zhou et al., 2016; Hoai et al., 2022; Cheliatsidou et al., 2021). From a theoretical perspective, agency theory is used to investigate the effectiveness of internal control systems, including optimal approaches in managing interactions, where work is determined by principals or shareholders, and agents or managers supervise performance (Jensen & Meckling, 1976). Internal control mechanisms can increase organizational effectiveness through the control environment, control activities, risk assessment, control monitoring, and information and communication (Otoo et al., 2023).

Research by Otoo et al. (2023) shows that organizational effectiveness is significantly influenced by three internal control system dimensions: control activities, control environment, and risk assessment. However, the influence of information, communication, and control monitoring activities is insignificant to organizational effectiveness. Meanwhile, other research conducted by (Hoai et al., 2022) shows that an effective internal control system influences organizational performance. A study by (Zhou et al., 2016) showed that adequate internal control shows the effectiveness of its five elements: control environment, risk assessment, control activities, information communication, and effective monitoring. Research results show evidence of a positive relationship between internal control and performance effectiveness (Vu & Nga, 2022).

Village Credit Institutions (LPD) are vital traditional economic institutions in Bali, serving social, financial, and religious functions. However, LPDs in Bali have encountered recent problems, such as unprofessional management, irregularities, fraud, and legal issues, leading to the bankruptcy and closure of 155 out of 1,493 LPDs. The highest number of bankrupt LPDs is in Tabanan Regency, with 54 LPDs affected. Additionally, LPDs in Tabanan Regency have seen a decline in performance, evidenced by an uptick in the number of financially unstable LPDs. To address this issue, a research study will investigate the influence of internal control system elements on LPD performance, specifically focusing on organizational effectiveness in LPDs in Tabanan Regency (Baliberkarya.com, 2022).

2 Literature Review and Hypothesis Development

2.1 Literature Review

Agency theory is a theoretical perspective used to investigate the effectiveness of internal control systems. It is an optimal approach to managing interactions, where principals or shareholders determine work, and agents or managers supervise their performance (Jensen & Meckling, 1976). Agency theory is based on mental processes and human preferences that postulate that internal control systems help maximize shareholder wealth by reducing agency costs (Rashid, 2022).

Internal control is a process carried out by an entity's board of directors, management, and other personnel, designed to provide adequate assurance regarding achieving objectives relating to operations, reporting, and compliance (COSO, 2013).

According to (Adegboyegun et al., 2020), the internal control system is a concept that summarizes the integrity structure of each entity, ethical values, and all control activities to ensure balance to achieve optimality. The benefit of internal control system (Mahadeen et al., 2016) encourages efficient and effective business processes and produces quality products/services for the organization's mission. Safeguard resources from loss due to waste by ensuring compliance with laws/regulations/contracts and management directives, development and maintenance of financial data, and reliable management in a timely reporting system. The internal control system has five components that support an organization in achieving its goals: control environment, risk assessment, control activities, information and communication, and monitoring activities (COSO, 2013).

2.2 Hypothesis Development

The Influence of The Control Environment on Organizational Effectiveness. The control environment is the supporting attitudes, style, and philosophy of parties related to the organization, as well as competence, morals, integrity, and ethical values (Chen et al., 2020; Gao & Zhang, 2019). The control environment consists of structures, methods, and measures that serve as a basis for evaluating the internal control framework (Chalmers et al., 2019; Vu & Nga, 2022), providing discipline and structure to achieve the objectives of the internal control system, namely increasing organizational effectiveness and improving system quality (Chiu & Wang, 2019). Demonstrates management's dedication to ethical business practices that will enhance employee behavior and organizational effectiveness (Gal & Akisik, 2020). The research results (Otoo et al., 2023) show that control significantly positively affects organizational effectiveness. The hypothesis proposed in this study: H1. The control environment has a significant positive effect on organizational effectiveness.

The Influence of Control Activities on Organizational Effectiveness. Control activities are systems, procedures, and policies that ensure direction over financial reporting and management controls have been implemented (Adegboyegun et al., 2020; Ngoc et al., 2020). Activities to ensure all necessary steps have been taken to reduce risks and help the organization achieve its goals, namely increasing its organizational effectiveness (GamageLow & Keving, 2018). Control activities are carried out at all levels of the organization to ensure that all activities and procedures are recorded (COSO, 2013). On the other hand, Chang et al. (2019) emphasize that control activities must be carried out periodically to see whether these activities are still relevant and make the necessary changes so that control activities significantly positively affect organizational effectiveness (Otoo et al., 2023). This research proposes the following hypothesis: H2. Control activities have a significant positive effect on organizational effectiveness.

The Influence of Risk Assessment on Organizational Effectiveness. Risk assessment is identifying and evaluating threats to organizational goals, facilitating the identification of relevant risks that can influence the achievement of organizational management goals (Chen et al., 2020). Management's attitude towards risk is essential for organizational effectiveness. Risk assessment helps prioritize specific goals, which have a significant impact on an organization's control system (Chiu & Wang, 2019), (Musah et al., 2022). A study by Otoo et al. (2023) shows that risk assessment significantly affects organizational effectiveness. The research hypothesis is as follows: H3. Risk assessment has a significant positive effect on organizational effectiveness.

The Influence of Information and Communication on Organizational Effectiveness: Information and communication are processes used to properly locate, collect, and disseminate critical information within the boundaries established by management to meet the organization's financial reporting objectives (Vu & Nga, 2022). Effective communication is based on disseminating information about each significant organizational division (Hamdan, 2019). A practical information and communication system will immediately provide accurate and relevant information to various stakeholders to support multiple internal control segments to function effectively and efficiently (Peterson, 2018). Information and communication do not significantly affect organizational effectiveness (Otoo et al., 2023). This research proposes the following hypothesis: H4. Information and communication have a significant positive effect on organizational effectiveness.

The Influence of Monitoring Activities on Organizational Effectiveness: Monitoring activities involve assessing the quality of control system functions to ensure that system operations and design run effectively and efficiently (Wali & Masmoudi, 2020; Mas'deh et al., 2015). Periodically evaluating the effectiveness and efficiency of a system is an essential component of any comprehensive internal control system (Zhou et al., 2016). Monitoring activities assess controls' quality and effectiveness in managing identified risks (Dowdell et al., 2020). Monitoring activities do not affect organizational effectiveness significantly (Otoo et al., 2023). As for the research hypothesis: H5. The effectiveness of the organization is positively and significantly impacted by monitoring activities.

3 Methodology

3.1 Population and Sample Selection

The population of this research is all LPD employees and administrators in Tabanan Regency, which is located in ten sub-districts. The Tabanan Regency Village Credit Institution Empowerment Institute (LPLPD) data shows 311 LPDs with 1,233

employees in 2023. The sampling technique used was proportionate random sampling, with 199 samples taken.

3.2 Data Collection, Measurement, and Analysis Techniques

Data was collected through questionnaires and interviews. Several questions about indicators measured in the internal control system and organizational effectiveness are included in the questionnaire. Each statement was asked to agree or disagree with respondents, which was then converted to numbers using a Likert scale with intervals of 5, going from 1 strongly disagree to 5 strongly agree. Thirty respondents were used to conduct validity and reliability tests before the questionnaire was distributed. Pearson correlation was used with a sig to measure the instrument's validity in this study (2-tailed) of 0.05. If the correlation value is below 0.05, the data obtained is valid. Cronbach's alpha statistical test was used to conduct the reliability test. Cronbach's Alpha value must be greater than 0.70 for the constructor variable to be reliable. The hypothesis was tested using variant-based SEM and processed with the SmartPLS Partial program at a significance level of 0.05.

4 Result and Discussion

4.1 Result

Hypothesis testing involves conducting significance testing through the bootstrap procedure. This requires examining parameter coefficient values, t-statistical significance values, and P values, all of which are displayed in Table 1. The findings presented in Table 1 demonstrate that the control environment (X1), risk assessment (X2), control activities (X3), and monitoring (X5) all have a significant positive impact on organizational effectiveness (Y). This is evidenced by the T statistics being greater than 1.9755 (T Table) and the P-value is less than 0.05, leading to the acceptance of hypotheses H1, H2, H3, and H5. However, in the case of the monitoring variable, the T statistic value is less than 1.9755, and the P-value is greater than 0.05, indicating that this variable does not significantly affect organizational effectiveness, leading to the rejection of hypothesis H4. The analysis indicates that a stronger control environment is associated with higher organizational effectiveness, suggesting that improved control environments contribute to increased organizational effectiveness. Similarly, the study reveals that better risk assessment processes, enhanced control activities, and regular monitoring are positively associated with higher organizational effectiveness.

Table 1. Path coefficients, total effect, and specific indirect effect

Explanation	Original sample	T statistic	P values
X1 (Control Environment) → Y (Organizational Effectiveness)	0.167	2.008	0.045
X2 (Risk Assessment) → Y (Organizational Effectiveness)	0.394	5.062	0.000
X3 (Control Activities) → Y (Organizational Effectiveness)	0.212	2.362	0.019
X4 (Information and Communication) → Y (Organizational Effectiveness)	0.050	1.257	0.209
X5 - Monitoring → Y (Organizational Effectiveness)	0.133	2.017	0.044
Y (Organizational Effectiveness) → Y1 (Goal Achievement Approach)	0.906	62.727	0.000
Y (Organizational Effectiveness) → Y2 (Competitive Value Approach)	0.916	69.115	0.000
Y (Organizational Effectiveness) → Y3 (Strategic Constituency Approach)	0.873	41.422	0.000
Y (Organizational Effectiveness) → Y4 (System Resource Approach)	0.872	43.975	0.000

4.2 Discussion

The relationship between the control environment and organizational effectiveness is positive. This means that a better control environment leads to higher organizational effectiveness. These findings are consistent with the results of Otoo et al. (2023) indicating that the control environment significantly positively affects organizational effectiveness. In Tabanan Regency LPD, a good control environment is attributed to the active supervision of internal control, both financial and non-financial, by the audit body. This supervision helps foster moral behavior and ethical values in the daily operational activities of LPD. Studies by Chen et al. (2020), Gao & Zhang (2019), Gal & Akisik (2020), and Chiu & Wang (2019) also demonstrate that a good control environment is evident in the management style and philosophy based on competence, morals, and ethical values, which, in turn, can enhance organizational effectiveness.

Risk assessment has a positive effect on organizational effectiveness. This is because LPD management has a process for determining the possibility of risk occurring, an action process for handling risks, and a process for dealing with business risks relevant to financial reporting objectives. According to studies by Chen et al. (2020), Chiu & Wang (2019), and Musah et al. (2022), organizational effectiveness will increase if management adopts a risk-oriented attitude and has a process for identifying and assessing risks. Additionally, research by Otoo et al. (2023) indicates that risk assessment significantly impacts organizational effectiveness.

The relationship is clear: the higher the control activity, the greater the organization's effectiveness. Separation of duties and responsibilities of employees and management, all LPD assets, and transactions have been properly recorded, supported by evidence, documented, and can be controlled. This creates good governance and increases organizational effectiveness. Organizational effectiveness can be achieved through adequate control activities such as management control, regular recording of all activities, and financial reporting procedures (Adegboyegun et al., 2020; Ngoc et al., 2020; GamageLow & Keving, 2018; Chang et al., 2019). Similar results are found in a study by Otoo et al. (2023), indicating a positive effect of control activities on control effectiveness. Agency theory stresses the importance of a strict separation between owners and agents by implementing good governance to control agent actions in the company and minimize conflicts of interest (Panda & Leepsa, 2017).

The effectiveness of LPD organizations in Tabanan Regency is not greatly affected by information and communication systems. This finding is contrary to the previous studies. An efficient and effective information and communication system can provide relevant information to stakeholders, improve control, and increase organizational effectiveness (Vu & Nga, 2022; Hamdan, 2019; Peterson, 2018). However, these results align with research by Otoo et al. (2023), which suggests that information and communication do not significantly affect organizational effectiveness. Information, especially accounting information, is crucial in agency theory for developing a control system to address the separation between owners (principals) and managers (agents). Principals need a robust information structure to access all information about the agent's actions, and the agent must not provide incorrect information to the principal (Ekanayake, 2004; Panda & Leepsa, 2017).

The research findings suggest that audit bodies can act as internal auditors to regularly oversee control over financial reports, thereby enhancing organizational effectiveness. It is crucial to periodically evaluate the control system to ensure it operates effectively and efficiently to enhance control (Wali & Masmoudi, 2020; Mas'deh et al., 2015; Zhou et al., 2016). These findings contradict the results of a study conducted by Otoo et al. (2023), which argues that monitoring has no significant impact on organizational effectiveness. According to agency theory, the internal control system is a tool for achieving performance or profitability goals and thus requires regular monitoring. Vigilant monitoring can help reduce agency costs due to differences in interests between management and principals (Hunziker, 2013).

5 Conclusion

The internal control system has four key elements: control environment, risk assessment, control effectiveness, and monitoring. These factors positively impact organizational effectiveness at the LPD in Tabanan Regency. The research supports agency theory, indicating that a strong control environment, ethical values, risk assessment, and regular monitoring lead to effective control and enhanced organizational effectiveness while reducing agency costs.

The impact of information and communication on organizational effectiveness is minor, signifying a low overall contribution. However, information and communication systems are crucial in the internal control of owners and managers. This helps prevent information asymmetry and conflicts of interest between the two parties.

Acknowledgment

The author expresses appreciation to the Director of the Politeknik Negeri Bali for providing support and funding for the research. They also express appreciation to the Head of the Research and Community Service Center (P3M) of the Politeknik Negeri Bali and the Village Credit Institution Development Institute (LPLPD) of Tabanan Regency, Bali Province for the opportunity to conduct the research.

References

- Adegboyegun, A. E., Ben-Caleb, E., Ademola, A. O., Oladutire, E. O., & Sodeinde, G. M. (2020). Internal control systems and operating performance: Evidence from small and medium enterprises (SMEs) in Ondo state. *Asian Economic and Financial Review*, *10*(4), 469–479. <https://doi.org/10.18488/journal.aefr.2020.104.469.479>.
- Baliberkarya.com. (2022). *8 Fakta penyebab kebangkrutan LPD, Golkar Bali berikan 9 rekomendasi agar LPD sehat dan desa adat di Bali makin kuat*. Baliberkarya.com. <https://www.baliberkarya.com/read/202108200005/8-fakta-penyebab-kebangkrutan-lpd-golkar-bali-berikan-9-rekomendasi-agar-lpd-sehat-dan-desa-adat-di-bali-makin-kuat.html>.
- Chalmers, K., Hay, D., & Khelif, H. (2019). Internal control in accounting research: A review. *Journal of Accounting Literature*, *42*, 80–103. <https://doi.org/10.1016/j.acclit.2018.03.002>.
- Chang, Y. T., Chen, H., Cheng, R. K., & Chi, W. (2019). The impact of internal audit attributes on the effectiveness of internal control over operations and compliance. *Journal of Contemporary Accounting and Economics*, *15*(1), 1–19. <https://doi.org/10.1016/j.jcae.2018.11.002>.
- Cheliatsidou, A., Sariannidis, N., Garefalakis, A., Azibi, J., & Kagias, P. (2021). The international fraud triangle. *Journal of Money Laundering Control*, December. <https://doi.org/10.1108/JMLC-09-2021-0103>.
- Chen, H., Yang, D., Zhang, X., & Zhou, N. (2020). The moderating role of internal control in tax avoidance: Evidence from a COSO-based internal control index in China. *Journal of the American Taxation Association*, *42*(1), 163–168. <https://doi.org/10.2308/atax-10701>.
- Chiu, T., & Wang, T., D. (2019). The COSO framework in emerging technology environments: An effective in-class exercise on internal control. *Journal of Emerging Technologies in Accounting*, *16*(2), 1–10. <https://doi.org/https://doi.org/10.5555/jeta-52500tn>.
- COSO. (2013). *Internal control—integrated framework framework and appendices*, May 2013.
- Dowdell, T. D., Klamm, B. K., & Andersen, M. L. (2020). Internal controls and financial statement analysis. *Journal of Theoretical Accounting Research*, *15*(2), 34.

- Gal, G., & Akisik, O. (2020). The impact of internal control, external assurance, and integrated reports on market value. *Corporate Social Responsibility and Environmental Management*, 27(3), 1227–1240. <https://doi.org/10.1002/csr.1878>.
- GamageLow, C. T., & Keving, L. T. (2018). Impact of internal control components and effectiveness of internal control system with the moderating effect of corporate governance of peoples' bank in Sri Lanka. *International Journal of Accounting and Taxation*, 6(2), 64–71. <https://doi.org/10.15640/ijat.v6n2a7>.
- Gao, P., & Zhang, G. (2019). Accounting manipulation, peer pressure, and internal control. *Accounting Review*, 94(1), 127–151. <https://doi.org/10.2308/accr-52078>.
- Hamdan, K. H. (2019). Applying COSO internal control framework to disaster management evaluation according to hyogo framework for action (HFA) in Iraq. *The Muthanna Journal of Administrative and Economics Sciences*, 9(2). <https://doi.org/10.52113/6/2019-9-2/125-152>.
- Hoai, T. T., Hung, B. Q., & Nguyen, N. P. (2022). The impact of internal control systems on the intensity of innovation and organizational performance of public sector organizations in Vietnam: The moderating role of transformational leadership. *Heliyon*, 8(2), e08954. <https://doi.org/10.1016/j.heliyon.2022.e08954>.
- Jensen, C., & Meckling, H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(3), 305–360.
- Länsiluoto, A., Jokipii, A., & Eklund, T. (2016). Internal control effectiveness – A clustering approach. *Managerial Auditing Journal*, 31(1), 5–34. <https://doi.org/10.1108/MAJ-08-2013-0910>.
- Mahadeen, B., Al-Dmour, R. H., Obeidat, B. Y., & Tarhini, A. (2016). Examining the effect of the organization's internal control system on organizational effectiveness: A Jordanian empirical study. *International Journal of Business Administration*, 7(6). <https://doi.org/10.5430/ijba.v7n6p22>.
- Mas'deh, R., Tarhini, A., Al-Dmour, R. H., & Obeidat, B. Y. (2015). Strategic it-business alignment as managers' explorative and exploitative strategies. *European Scientific Journal*, 11(7), 450–470. <http://www.ejournal.org/index.php/esj/article/view/5334>.
- Musah, A., Padi, A., Okyere, B., E. Adenutsi, D., & Ayariga, C. (2022). Does corporate governance moderate the relationship between internal control system effectiveness and SMEs financial performance in Ghana? *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2152159>.
- Ngoc T.B., Le, L. T. P., & Vu, T. V. N. (2020). The use of internal control systems and codes of conduct as anti-corruption practices: evidence from Vietnamese firms. *Baltic Journal of Management*, 16(2), 173–189. <https://doi.org/https://doi.org/10.1108/BJM-09-2020-0338>.
- Otoo, F. N. K., Kaur, M., & Rather, N. A. (2023). Evaluating the impact of internal control systems on organizational effectiveness. *LBS Journal of Management & Research*, 21(1), 135–154. <https://doi.org/10.1108/lbsjmr-11-2022-0078>.
- Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, 10(1), 74–95. <https://doi.org/10.1177/0974686217701467>.
- Peterson, A. N. (2018). Differences in internal control weaknesses among varying municipal election policies. *Journal of Accounting and Public Policy*, 37(3), 191–206.

<https://doi.org/10.1016/j.jaccpubpol.2018.04.001>.

- Rashid, C. A. (2022). The role of internal control in fraud prevention and detection. *Journal of Global Economics and Business*, 3(8), 43–55. <http://www.journalsglobal.com/index.php/jgeb/article/view/120/159>.
- Vu, Q., & Nga, N. T. T. (2022). Does the implementation of internal controls promote firm profitability? Evidence from private Vietnamese small- and medium-sized enterprises (SMEs). *Finance Research Letters*, 45(May), 102178. <https://doi.org/10.1016/j.frl.2021.102178>.
- Wali, S., & Masmoudi, S. M. (2020). Internal control and real earnings management in the French context. *Journal of Financial Reporting and Accounting*, 18(2), 363–387. <https://doi.org/10.1108/JFRA-09-2019-0117>.
- Zhou, H., Chen, H., & Cheng, Z. (2016). Internal control, corporate life cycle, and firm performance. *International Finance Review*, 17, 189–209. <https://doi.org/10.1108/S1569-376720160000017013>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

