

# Strong Control Environment the Main Pillar of Internal Audit in State-Owned Enterprises

Control Environment  
and Internal Audit in  
SOEs

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## ABSTRACT

The control environment is a fundamental component of a company's internal control system, comprising standards, processes, and organizational structures that guide the implementation of internal controls. This study aims to examine the factors influencing the implementation of the control environment and evaluate its stability in state-owned enterprises (SOEs) within the industrial and service sectors. An exploratory research design with multiple case studies was employed to gain in-depth insights. The findings indicate that SOE management has established a control environment; however, inconsistencies persist across business segments. In particular, the risk management dimension in some cases requires further development, as no dedicated Chief Risk Officer (CRO) exists, and internal audit and risk management functions are not yet optimal, reducing overall effectiveness. Nevertheless, positive practices are evident, including well-structured control organizations, strong commitment to competence, enforcement of accountability, productive roles of top management, and adherence to integrity and ethical standards. The study concludes that while the control environment is implemented, strengthening risk management and internal audit functions is essential to enhance the effectiveness and sustainability of internal controls in SOEs.

**Keywords:** Control Environment, Internal Audit, Risk Management, State-Owned Enterprises.

## ABSTRAK

Lingkungan pengendalian merupakan komponen fundamental dari sistem pengendalian internal perusahaan, yang mencakup standar, proses, dan struktur organisasi yang membimbing pelaksanaan pengendalian internal. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang memengaruhi penerapan lingkungan pengendalian dan mengevaluasi stabilitasnya pada perusahaan milik negara (BUMN) di sektor industri dan jasa. Penelitian menggunakan desain eksploratif dengan pendekatan studi kasus berganda untuk memperoleh wawasan yang mendalam. Hasil penelitian menunjukkan bahwa manajemen BUMN telah membangun lingkungan pengendalian; namun, terdapat ketidakkonsistenan dalam penerapannya di berbagai segmen bisnis. Secara khusus, dimensi manajemen risiko pada beberapa kasus masih perlu dikembangkan, karena tidak adanya Chief Risk Officer (CRO) khusus, serta fungsi audit internal dan manajemen risiko yang belum optimal, sehingga menurunkan efektivitas keseluruhan. Meski demikian, praktik positif

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*tetap terlihat, antara lain organisasi pengendalian yang terstruktur, komitmen terhadap kompetensi, penegakan akuntabilitas, peran produktif manajemen puncak, serta penerapan integritas dan etika. Penelitian menyimpulkan bahwa meskipun lingkungan pengendalian telah diterapkan, penguatan fungsi manajemen risiko dan audit internal diperlukan untuk meningkatkan efektivitas dan keberlanjutan pengendalian internal pada BUMN.*

**Kata kunci:** *Pengendalian Lingkungan, Audit Internal, Manajemen Risiko, Badan Usaha Milik Negara.*

## INTRODUCTION

A good corporate control environment is reflected in the existence of an internal control system, internal audit function, external audit, risk management, and compliance program that can be implemented and run well. Internal auditors were found to be actively involved in assisting their organizations in embedding GRC processes and in improving the stability of their GRC through spearheading and coordinating the implementation of joint assurance protocols. In this regard, internal auditors were found to be most effective when they had the support of top management (Chikwiri & Rosa, 2015).

The stability level framework will help management map areas that require improvement and establish a priority scale for relevant materials and activities related to the environment (d'Arcy & Eulerich, 2023). Based on the World Bank International Finance Corporation, four stability level frameworks were mapped for the development of corporate governance, respectively, as basic practices, intermediate practices, good international practices, and leadership. The stability level is entirely adopted from the World Bank International Finance Corporation. In terms of IAF attributes, the role of risk management and the role of regulatory compliance contribute significantly to the positive variance in IFR compared to the role of governance process and internal control role evaluation (Lauckner et al., 2012; Ait Novatiani et al., 2022). Implementation of the COSO model also facilitates regulatory compliance and early problem detection. Implementation of the COSO model is a commitment to excellence and integrity, culminating in a more resilient, efficient, and trustworthy organization in a constantly changing business environment (Hakim & Suryatimur, 2022; Espinosa-Jaramillo, 2024).

In Indonesia, the implementation of governance in state companies has been running but is still considered inadequate, so the role of internal audit is needed to determine risk assessment. Implementation of risk assessment procedures to identify controls that directly or indirectly address material misstatements (Tuanakotta, 2013). The professionalism of internal auditors must carry out audits correctly and professionally demonstrate their credibility (Putri & Triandi, 2020). The vision of BUMN, contributing to national economic growth, state revenue, and public services as stated in Law Number 19 of 2003 concerning State-Owned Enterprises which is the main legal basis governing the objectives and functions of BUMN, so that the focus of criticism and study is state-owned enterprises in the industrial and service sectors, considering that these companies are closely related to increasing production and public services so that it is deemed necessary to explore a good control environment in industrial and service BUMN.

In examining the phenomenon of implementing the control environment, the dimension of the control environment is an important aspect. The control environment is the foundation for all internal control components that form the discipline and structure of other components, which include integrity and ethics, commitment to improving competence, board of commissioners and audit committee, management philosophy and types of operations, human resource policies and practices (Ilyas et al., 2020). The use of this case study method is to analyze the series resulting from the similarity of good practices that exist in society, and companies are observed and analyzed for the uniqueness of best practices in each company (Van Assche et al., 2022).

The attraction for researchers to focus on the types of companies above is that they have the characteristics of different types of business segments, namely industry and services, both of which are state-owned business organizations, located in the same area. Organizations are conceptualized as decision-making machines that regulate and (together) control governance. The community is seen as the social environment in which the governance system directs its operations (Van Assche et al., 2022). The research question raised in this study is how aspects of the application of the control environment and the level of stability of the application of controls in state-owned companies in two different types of business segments in the same location. The purpose of this study is to comprehensively understand the aspects that affect the implementation of the control environment and identify the stability of several aspects of the implementation of the control environment in state-owned companies. This research was conducted in four state-owned companies. This research uses an exploratory study with a series of case studies.

## **LITERATURE REVIEW**

### **The Concept of Internal Control Theory**

This study is based on the conceptual framework of internal control theory, which focuses on the dimensions of the control environment, including internal control systems, internal audit functions, external audits, risk management, and compliance programs (International Finance Corporation, 2019). The conceptual framework used is stewardship theory, which describes a situation in which managers are more motivated by organizational interests than individual interests (Davis et al., 1997).

This research is based on Internal Control Theory and Stewardship Theory, where these two concepts are combined to see the reliability at the efficiency level of the internal control system and compliance with regulations, and emphasize the relationship of trust between interested parties and loyalty to the organization. ICIF-2013 defines internal control as follows: Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance (COSO, 2013).

The role of the control environment is the main foundation for internal control, so the importance of the role of the directors, management, and all employees in a company lies in determining the control environment and the level of stability of the company in achieving its goals. Strengthening internal control mechanisms, especially through improving the control environment and implementing strict risk assessment practices, has a positive impact on financial performance (Nakitende et al., 2025). Internal control helps companies form reasonable cash policies that lead to value creation (Chen et al., 2020). The quality of national governance and company size are important underlying factors that affect the environmental and social performance of companies (Orazalin & Baydauletov, 2020). The internal control system affects the quality of regional financial reports in Bener Meriah Regency (Budi et al., 2020). The effectiveness of the Local Government Financial Accounting System and the effectiveness of SPI play an important role in the quality of Local Government Financial Statements (Widaryani, 2020).

### **Theoretical Foundation: Stewardship Theory**

In stewardship theory, the model of man is conceptualized as a steward whose actions are guided by pro-organizational and collectivistic motives rather than individualistic or self-serving interests (Davis et al., 1997). This perspective assumes that individuals within an organization, including the board of directors, managers, and employees, inherently prioritize the collective welfare of the company and its stakeholders over personal gain. Consequently, these organizational actors share responsibility for ensuring the smooth operation of the company's functions, aligning their decisions and behaviors with the common interests of all parties involved. The theory emphasizes that when organizational

members internalize the values and objectives of the company, they are more likely to engage in behaviors that contribute to long-term sustainability and strategic success.

Leadership style plays a critical role in this context, as it can significantly influence the effectiveness of corporate governance mechanisms, internal control systems, and reputation management processes, all of which are central to fostering higher levels of employee engagement (Koeswayo et al., 2024). A leadership approach that encourages transparency, accountability, and participatory decision-making can reinforce stewardship behavior by aligning individual goals with organizational objectives. When employees are committed and share the organization's norms and values, they are better positioned to support corporate strategies and operational initiatives, enhancing overall performance (Akpa et al., 2021). This alignment not only facilitates the realistic implementation of internal controls and internal audit processes but also strengthens managerial accountability and effectiveness. Such practices ultimately contribute to achieving organizational goals while simultaneously enabling career growth and managerial development within the company (Vranic et al., 2021; Yeni, 2024). By integrating stewardship principles with effective leadership and governance structures, organizations can cultivate a workforce that prioritizes collective success, driving sustainable organizational outcomes.

## RESEARCH METHODS

This research applies a multiple case study methodology by using several companies as research locations in order to gain an in-depth understanding of a particular event. This approach requires analyzing multiple cases to identify the full range of sequences and relationships between variables. This method is commonly used in organizational research to explore specific issues or topics in detail. The process involves a systematic strategy of collecting and analyzing data from various sources, such as individuals, organizations, and communities (Gerring, 2016).

This research uses multiple case studies to gain broader and deeper insights into complex problems by considering various points of view, situations, and sources of information. This study uses four companies that cover all possible combinations of the two control variables, among others, SOEs from two types of industrial and service business segments, and operate in the same region. The more case studies covered in a scientific article, the more likely the article is to be representative, albeit at the expense of shorter observation time for researchers to study the cases.

Table 1. Informant Profiles

Informant	Director Board (1)	Supervisor Board (2)	Senior Manager (3)	Staff (4)	Personnel
CS-1	-	-	3 (If-1), 3 (If-2)	4 (If-3), 4 (If-4)	4 people
CS-2	1 (If-1)	-	3 (If-2)	4 (If-3), 4 (If-4), 4 (If-5)	5 people
CS-3	-	-	3 (If-1)	4 (If-2), 4 (If-3), 4 (If-4)	4 people
CS-4	1 (If-1)	2 (If-2)	3 (If-3)	4 (If-4), 4 (If-5)	5 people

CS: Case Study, If: Informant

Table 1 shows the informant profiles in this study. The companies observed in this study that meet these criteria include: First, PT AP (Case Study-1) is a company engaged in airport management and the provision of commercial airport services in Indonesia, second, PT ST (Case Study-2) is a company that produces and markets cement, clinker, and other derivative products, third, PT IK (Case Study-3) is a company engaged in shipbuilding and ship-repair along with related maritime engineering services, and fourth, PT IS (Case Study-4) is a company competent in outsourcing labor providers that provide specialized labor for crew members needed by Indonesian shipping. Each case study involved several informants related to the implementation practices, with a total of 18 informants as sources of information. The selection criteria for informants in all case

studies were (1) informants had worked in the relevant company for more than five years, and (2) informants had been in their current position for more than one year.

In case studies, data collection and analysis use diverse methods to capture multiple perspectives and provide comprehensive results. This study gathered data through interviews, document reviews, and observations in four companies. Interviews, conducted semi-structured with open-ended questions, allowed informants to share experiences freely and were supported by a guide containing questions, research problems, and objectives. Data collection involved planning, respondent selection, case study design, interviews, observations, document review, triangulation, and analysis (Wahyuni, 2024). Fieldwork took place in April and September 2023. The study evaluated five attributes of the control environment, namely, Internal Control System, Internal Audit Function, External Auditor, Risk Management, and Compliance Program. using a framework adapted from the International Finance Corporation, which defines four levels of implementation: basic practice, incremental stage, key contribution, and leadership (International Finance Corporation, 2019).

## RESULTS

The analysis and discussion will describe the implementation of internal control as an important component of governance in state-owned enterprises, using four case studies. This will begin with a brief description of the observed companies, followed by an examination of the implementation of the five attributes of internal control. Detailed descriptions of the parts of internal control can be significant, as outlined in the analysis of all case studies.

### Case Study at PT AP & PT ST

Case study 1 in PT AP shows that the company's Internal Control System is managed by the Internal Control Unit (*Satuan Pengendalian Internal/SPI*) and functions effectively through a clear division of tasks and authority. As explained by Informant 4 (If-3), responsibilities such as transaction processing, recordkeeping, cash receipt, and cash disbursement are handled by different individuals, reflecting proper segregation of duties as part of internal control. The Internal Audit Function also plays a critical role in identifying deficiencies and providing recommendations. According to Informant 4 (If-4), SPI conducts annual audits reported to the accounting manager, with findings serving as snapshots of the company's condition. All units must follow up on these findings, and as Informant 3 (If-1) noted, recommendations are implemented and documented, with weekly or monthly meetings held to discuss progress.

The External Audit is conducted by a public accounting firm, typically selected from the Big 4, based on bid value, cost, and estimated audit time. Informant 3 (If-2) confirmed that both internal and external audits (KAP, BPKP, etc.) are carried out to ensure accountability. Meanwhile, Risk Management is overseen by a Chief Risk Officer (CRO), supported by the General Manager, who develops and updates the company's risk profile. This process involves all technical units and categorizes risks into green (low), yellow (medium), and red (high) zones. The risk profile updating is carried out every three months and reported to senior management. The Compliance Program is implemented every three months across all units to record risks and complaints, which vary by unit. The company also ensures continuous adaptation to new regulations issued by relevant ministries, thereby maintaining compliance with prevailing legislation.

Study Case 2 in PT ST shows the Internal Control System is managed by the Internal Supervisory Unit (*Satuan Pengawas Internal/SPI*), which evaluates the consistency of management practices across operational, financial, and general functions. SPI applies both national and international standards to maintain operational and financial quality. As noted by Informant 4 (If-3), controls follow recognized standards from development agencies, while Informant 1 (If-1) emphasized that evaluation supports better decision-making and oversight by the board. The Internal Audit Function focuses on monitoring all work units, ensuring compliance with management system certification, and fostering

communication between auditors and auditees. Audit results are presented during an annual management review meeting. Informant 4 (If-3) highlighted that internal audits are operationally important for evaluating management consistency and essential for maintaining system certification.

The External Audit is carried out by a certified public accounting firm based on professional criteria such as competence, independence, and objectivity, while the Supreme Audit Agency (*Badan Pengawas Keuangan/BPK*) also supervises the company. Informant 3 (If-2) explained that financial reports are audited based on a completion plan agreed upon by both the auditor and auditee. Risk Management is overseen by the Board of Directors, while day-to-day management is handled by the Risk Management Officer acting as CRO. Risks are identified and discussed in monthly meetings of the audit committee, with outcomes reported to the board (If-4).

The Compliance Program is guided by a whistle-blowing system and a corporate code of ethics, supported by a Chief Compliance Officer (CCO). The CCO ensures the company continuously reviews laws and regulations, updating policies as new rules emerge and reporting weekly to management. Informant 4 (If-5) confirmed that compliance is maintained through this ongoing review process, ensuring risks and violations are systematically addressed.

### Case Study at PT IK PT IS

Study Case 3 in PT IK shows that the Internal Control System is managed by the Internal Supervisory Unit, which establishes structured rules and policies for internal control, reporting, supervision, and periodic evaluation. This ensures that company operations follow predetermined standards and are regularly reviewed through an internal audit system to assess compliance and effectiveness. Informant 4 (If-2) confirmed that the company enforces policies requiring the continuous maintenance and development of financial and other reporting in line with established principles. The Internal Audit Function is carried out by the Manager of System Management & Risk, who reports findings and follow-up actions to top management. However, as Informant 3 (If-1) noted, the company lacks a dedicated risk management division and has not yet adopted ISO-based risk management standards.

The External Audit is conducted by a public accounting firm appointed in line with BUMN Regulation Number PER-02 of 2023 (Article 32) and approved by shareholders in the General Meeting of Shareholders. Informant 4 (If-2) stated that external auditors are appointed through this mechanism, while Informant 4 (If-3) emphasized that financial reports are audited in accordance with generally accepted accounting principles and professional codes of ethics. Risk Management remains the responsibility of the System Manager, with no dedicated division, which limits its effectiveness. The company continues to rely on general practices such as risk profiles, feasibility studies, and risk assessments (If-1). The Compliance Program is implemented effectively, covering risk and complaint management as well as adaptation to new regulations from relevant ministries. Oversight is carried out by the Manager of System Management & Risk, with compliance integrated into company operations. Informant 4 (If-4) added that the company communicates its compliance commitment to stakeholders in ship repair projects through regular coordination meetings, project updates, and open communication channels.

Study Case 4 in PT IS shows that the Internal Control System is managed by the SPI unit of the parent company, which reports directly to company leadership. Controls are implemented using Key Performance Indicators to monitor and evaluate work performance, particularly in finance, with SAP serving as the primary tool. Informant 3 (If-3) confirmed that all tasks are monitored by superiors and documented through the monthly Business Performance Review (BPR). Strategic planning incorporates internal control through the Company's Work Plan and Budget (*Rencana Kerja dan Anggaran Perusahaan/RKAP*), which sets targets and programs reviewed each month during BPR sessions.

The Internal Audit Function is carried out by the parent company, with findings reported to the board of directors. Informant 4 (If-4) noted that there is no dedicated internal audit for IS, since audits are included within the shareholder audit process. For the External Audit, annual financial statement reviews are performed by a public accounting firm (*Kantor Akuntan Publik/KAP*) appointed by the Head Office from parent company, as confirmed by Informant 1 (If-1). Risk Management is overseen by representative management within the supporting division, with results reported monthly to the board of directors, then forwarded to the commissioners and parent company's BPR. While no Chief Risk Officer exists, risks are identified and assessed through a matrix that categorizes them as minor, moderate, or major, covering aspects such as human resources, finance, reputation, assets, and operations (If-2).

The Compliance Program supports regulatory adherence, ethical business practices, and effective risk management. Compliance is guided by board regulations and company policies aligned with the Company's Operational Management System and is reviewed monthly. Informants 2 (If-2) and 4 (If-5) emphasized that any challenges are addressed in regular coordination meetings, reinforcing the company's commitment to maintaining a strong control environment.

### Comparative Result

The four companies have applied internal control systems and shown a strong commitment to maintaining a sound control environment, even though the responsible units differ in name and structure. State audit institutions such as the Financial and Development Supervisory Agency (*Badan Pengawas Keuangan dan Pembangunan/BPKP*) have a clearly defined supervisory role in all four cases.

Table 2. Implementation Level

Level	Indicator	CS1	CS2	CS3	CS4
Basic Practices	1. The State Owned Enterprise has an Internal Control system in place	Yes	Yes	Yes	Yes
	2. Internal audit function in place	Yes	Yes	Yes	Yes
	3. Annual FS are subject to an independent audit	Yes	Yes	Yes	Yes
	4. The state audit institution's work is clearly defined	Yes	Yes	Yes	Yes
Intermediate Practices	1. Internal Control and internal audit are staffed and in place	Yes	Yes	Yes	No
	2. Risk Management is part of the Internal Control framework	Yes	Yes	Yes	Yes
	3. Internal audit is accountable to the Board	Yes	Yes	Yes	Yes
	4. An independent external audit is carried out using the International Standards on Auditing.	Yes	Yes	Yes	Yes
	5. State-owned Enterprise acts on issues raised by the independent auditor	Yes	Yes	Yes	Yes
Good International Practices	1. The independent external audit is subject to the oversight of an audit committee or equivalent body.	No	No	No	No
	2. An Independent external auditor's opinion on the FS contains no qualification	Yes	Yes	Yes	Yes
	3. The state audit institution uses public funds to implement service objectives	No	No	No	No
Leadership	1. The design of the Internal Control system complies with the 2013 COSO framework.	Yes	Yes	No	No
	2. The internal audit unit meets the standards of the International Internal Audit, and its recommendations are considered.	No	No	No	No
	3. A fully independent audit committee exercises oversight and, when appropriate, a risk committee	No	No	No	No

Note: CS = Case Study

At the intermediate practice level, internal controls are reflected in the readiness of personnel to perform their functions, although in Case Study 4 the internal control function is carried out directly by the parent company rather than a dedicated division. Across all cases, risk management serves as a core element of the internal control

framework. External audits are conducted by appointed public accounting firms under applicable standards, and findings are consistently discussed and followed up with relevant parties and auditors.

Leadership plays a central role in ensuring that internal control systems function effectively, particularly in state-owned companies that are required to design systems aligned with the 2013 COSO framework and International Internal Audit (IIA) standards. Ideally, this includes the presence of a fully independent audit committee. However, among the four companies studied, not all maintain such structures. Case Study 4, for example, relies on audit and risk control committees at the parent company level rather than within the company itself. Table 2 shows that there are still many things that need to be addressed to optimize the control environment. The stability level framework will help management map the areas that require improvement and establish a priority scale for relevant materials and activities related to the control environment (d'Arcy & Eulerich, 2023).

## **DISCUSSION**

A comparative analysis of the four case studies highlights both similarities and differences in how the control environment is implemented. The companies demonstrate consistency in applying most parameters of the control environment, with variations that still align with its core principles. Based on Table 3, the internal control system reflects professional orientation and adherence to good practices, supported by formal terms of reference, though not always fully systematic or comprehensive. The control structures are generally sound and functioning, but in one case, internal control is conducted directly by the parent company, indicating a more centralized system with reduced independence at the unit level (Moeller, 2013). As emphasized by Atabayeva (2022), the internal control system forms a vital part of corporate management, enabling organizations to mitigate significant risks and achieve planned outcomes, particularly the COSO framework, which highlights the importance of formal structures, professional orientation, and independence in ensuring effective control practices.

Internal audit function, in this case, two-way communication with the auditee is running, which shows a responsive audit process and encourages improvement (Sarapaivanich et al., 2024). Such practices align with the monitoring activities component in internal control theory (Abiodun, 2020). Internal audit routinely provides input and conducts follow-up on findings, and this is a good internal audit practice, although there is one case where internal audit is still limited to reporting to management. There is no systematic evaluation or follow-up, and one other case illustrates that the internal audit function has not functioned optimally. The function is carried out by the parent company, which shows structural weaknesses in the supervisory function. The internal audit function can encourage better governance, which ultimately benefits corporate governance parties, for example, the board of directors and management team (Kifflee et al., 2023; Yuldasheva & Shayakubov, 2025). The responsiveness of internal audit, particularly through two-way communication and follow-up, demonstrates stewardship behavior as auditors and management collaborate not merely for compliance, but to foster continuous improvement and strengthen accountability (Badara, 2017).

External audit, as one of the compliance for SOEs, which is required to conduct routine audits, has been done with the process of appointing external auditors according to the mechanism. The company is also required by regulations to be audited periodically by a public accounting firm. Company compliance with good corporate governance practices has a limited impact on the decision to choose an auditor (Gerged et al., 2020; Abidi & Touhami, 2025).

**Table 3.** Comparative Analysis of Case Studies

Case Study	Attribute	Information Analysis
Case Study 1	Internal Control System	1. The Control Function is in the SPI Unit 2. Implementation of control based on the division of tasks and authority
	Internal Audit Function	1. Internal Audit plays a role in providing input to Management if deficiencies are found 2. Conduct follow-up efforts on findings every month
	External Audit	1. Financial Statements are audited by the Public Accounting Firm 2. The requirement for the appointment of KAP is the Big 4 Company group
	Risk Management	1. The role and responsibility for the development and implementation of the risk management system lies with the Chief Risk Officer (CRO). 2. Risk Profile updating is carried out regularly every 3 months and reported to senior management
	Compliance Program	1. Compliance program has been conducted periodically, covering risks and complaints. 2. Adaptation to new regulations from related ministries has been carried out.
Case Study 2	Internal Control System	1. Control is carried out by the SPI unit 2. Control refers to generally accepted standards based on national and international standards
	Internal Audit Function	1. Conduct internal inspection of the management system throughout the work unit and monitor and evaluate the work program. 2. Intensive communication between auditors and auditees to follow up on auditor recommendations.
	External Audit	1. Financial Statements are audited by the Public Accounting Firm
	Risk Management	1. The role and responsibility for the development and implementation of the risk management system lies with the Chief Risk Officer (CRO). 2. Risk Profile updating is carried out regularly every 3 months and reported to senior management.
	Compliance Program	1. Has a Chief Compliance Officer whose role is to update the latest rules related to the Company.
Case Study 3	Internal Control System	1. Internal Supervisory Unit Division as Control function 2. The corporate governance guidebook serves as a reference in implementing rules and policies.
	Internal Audit Function	1. The company's internal audit only focuses on doing its job as the company's internal audit. 2. Communicate to top management regarding the implementation of follow-up on findings
	External Audit	1. Financial Statements are audited by the Public Accounting Firm 2. The appointment of KAP is in accordance with BUMN regulation Number PER-02 of 2023 (Article 32)
	Risk Management	1. The System Manager still handles Risk Management, and there is no special division for risk management. 2. Risk management is based on risk profile, visibility study, and risk assessment analysis.
	Compliance Program	1. Compliance program covers risk and complaints. 2. Understanding of related regulations, new provisions from related ministries have been adjusted and implemented
Case Study 4	Internal Control System	1. Control is carried out by the SPI unit of the parent company which is accountable to the Chairman. 2. Internal Control System is developed and implemented using Key Performance Indicators 3. Documentation of internal control through Business Performance Review (BPR) is reviewed regularly every month.
	Internal Audit Function	1. There is no internal audit specifically, it is still handled directly by the parent company. 2. Internal audit is carried out by the parent company
	External Audit	1. Financial statements are audited by a public accounting firm. 2. KAP appointment is determined by the parent company
	Risk Management	1. Risk management is carried out by supporting managers and does not yet have a Chief Risk Officer (CRO). 2. Risk identification is based on minor, medium and major risks
	Compliance Program	1. Compliance programs are established in board of directors regulations and company policies

Risk management, two of the four cases have a Chief Risk Officer (CRO), and conduct regular monthly risk profile updates by identifying risks, this shows a well-organized system and indicates a working and integrated risk management system, but in one case risk management is handled by the system manager because there is no specific division that handles risk management, and in another case the risk categories are divided in general terms only, there is no visible analytical and integrated approach. Socially responsible companies are in a better position to reduce corporate risk (Cai et al., 2006; Kalia & Gill, 2023).

In all four cases, the compliance program covered risk management, complaint handling, and adaptation to new regulations, reflecting responsiveness to legal changes. Most companies appointed a Chief Compliance Officer, indicating a professional and structured approach aligned with ministerial provisions for managing complaints (Delimatsis, 2017). However, one case lacked a clearly defined compliance unit, with the program established only through board regulations without specifying an implementing structure. As noted by Edelman and Talesh (2011), Andreisová (2016), Gajda (2025), and Osei et al. (2025), many organizations today have developed basic compliance, anti-fraud, and ethics frameworks, yet continue to assess their effectiveness and seek tools and strategies to strengthen them.

The findings suggest that while the four companies show efforts to implement compliance, variations remain due to differences in organizational structure and business operations. Because the cases represent only two segments, the results are not sufficient to capture broader patterns. Different operational risks across business segments require different internal control and compliance approaches, underscoring the need for wider research involving more companies to obtain stronger and more generalizable findings. Table 3 shows the comparative analysis of the case study.

## **CONCLUSION**

The results of this study indicate that the management of state-owned enterprises (SOEs) has implemented various aspects of the control environment across industrial and service business segments. Cases 1 and 2 show that almost all aspects are applied in a standard and systematic manner. However, Cases 3 and 4 reveal different patterns, particularly in the risk management dimension, where no dedicated Chief Risk Officer (CRO) exists, and risk management responsibilities are carried out by other managers. The internal audit and risk management functions are still developing and not yet fully optimized, which reduces the overall effectiveness of the control environment. Positive practices that must continue to be applied in each company include the operation of control organizations, strong commitment to competence, enforcement of accountability, productive roles of top management, and upholding integrity and ethical standards. These findings highlight that while SOEs have established a control environment, inconsistencies across business segments indicate varying levels of maturity, which may affect overall governance effectiveness and organizational rigor.

Based on these results, it is recommended that SOEs strengthen the independence and capacity of internal audit and risk management units, adopt internationally recognized frameworks such as COSO and ISO standards more consistently, and ensure compliance programs are supported by dedicated structures rather than ad-hoc arrangements. This study is limited to four case studies representing two business segments, which restricts the generalizability of the findings. Future research should expand the sample to cover a wider range of industries, incorporate quantitative measurements of internal control effectiveness, and examine the relationship between internal control practices and organizational performance outcomes. Such research would provide stronger empirical evidence, broader policy insights, and guidance for enhancing the effectiveness, stability, and sustainability of internal control systems in SOEs.

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