

Preventing Bankruptcy of Insurance Companies in Indonesia Using The COSO Framework Approach (Case Study of AJB Bumiputra)

Amrizal ^{1*}, Yumniati Agustina ¹, Hardi ²

¹ Institut Technology dan Bisnis Ahmad Dahlan

² Fakultas Ekonomi dan Bisnis, Universitas Riau

*Corresponding author E-mail: amrizal@itb-ad.ac.id

Received: August 4, 2025, Accepted: September 6, 2025, Published: September 23, 2025

Abstract

Background: The financial crisis at the AJB Bumiputra 1912 insurance company in Indonesia has attracted the attention of academics to seek recovery solutions.

Objective: Examining the root causes of the financial crisis and solutions for the insurance company AJB Bumiputra 1912.

Methodology: Qualitative research design, data collection through in-depth interviews and documentation. Data analysis using design thinking as an alternative problem-solving methodology.

The financial crisis, marked by the failure to pay customer claims amounting to \$ 32 trillion, occurred due to mismanagement and violations of the provisions outlined by the Committee of Sponsoring Organizations, particularly the Control Environment principle. This includes a decline in management integrity, which has shifted from upholding the values of collective effort and cooperation to individualism, collusion in the management structure, and dual roles where commissioners concurrently serve as interim directors. The Company's recovery from the financial crisis was carried out by selling fixed assets into liquid assets, reducing the value of benefits for policyholders, rationalizing HR, and restructuring the organization. Strengthening Management by implementing the COSO Framework properly, so that the Company returns to the basic values of the Company's founding, as outlined by its founding father.

Contribution: The research findings can serve as a reference for AJB Bumiputra 1912 to help it recover from the financial crisis.

Keywords: Mutual Funds; Control Environment; Risk Assessment; Control Activities; Monitoring Activities.

1. Introduction

Insurance companies in Indonesia, particularly AJB Bumiputra 1912, face significant challenges in maintaining their financial sustainability. Since its founding in 1912, AJB Bumiputra has been one of the oldest and most prominent insurance companies in Indonesia, with a unique mutual fund business model. However, in recent years, the Company has experienced a crisis caused by mismanagement and poor investments, resulting in severe negative solvency. (Astrie & Toto Tohir Suriaatmaja, 2022; Gajewski & Tran Dieu, 2021) The crisis that hit AJB Bumiputra 1912 was not just an internal issue, but also reflected broader challenges facing the Indonesian insurance industry. Reports indicate that many other insurance companies, such as ASABRI and Jiwasraya, have also experienced similar problems, often related to abuse of authority and poor risk management. (Aziz & Rahman, 2024; Huy & Diep, 2023; Markham, 2022)

In this context, it is crucial to implement an effective framework to manage risk and ensure corporate sustainability. One such framework is the COSO Framework, which is designed to enhance internal control and risk management within organizations. The COSO Framework consists of five main components: control environment, risk assessment, control activities, information and communication, and monitoring. (Khersiat, 2020); (Bouheraoua & Djafri, 2022). The implementation of this framework is expected to assist AJB Bumiputra 1912 in identifying and addressing the risks it faces, as well as increasing transparency and accountability within the Company.

The primary issue facing AJB Bumiputra 1912 is a severe solvency crisis, which reflects weaknesses in internal controls and risk management. Data shows that the Company's solvency at the end of 2020 reached -1170.70%, far below the minimum standard set. (Astrie & Toto Tohir Suriaatmaja, 2022) This indicates that the Company is unable to fulfill its obligations to policyholders, which could have fatal consequences for the Company's reputation and survival. The crisis was exacerbated by the fact that AJB Bumiputra 1912 operated as a mutual fund, where policyholders were also owners of the Company. This model made restructuring and decision-making more complex, especially in crises. (Ramos et al., 2022).

The lack of clear regulations regarding mutual insurance companies in Indonesia makes dispute resolution and restructuring even more difficult. (Agustian & Nugroho, 2020). Thus, this study aims to explore how the implementation of the COSO Framework can help AJB Bumiputra 1912 overcome its solvency crisis. This study will analyze each COSO component and how it can be implemented to improve internal control and risk management within the Company.

This research offers a significant contribution to the literature on internal control in the insurance industry, particularly in Indonesia. While many previous studies have discussed the importance of internal control in the corporate context, this research will focus on the application of the COSO Framework in the unique context of a mutual fund insurance company such as AJB Bumiputra 1912. This research will fill the existing gap in the literature by providing new insights into how insurance companies can manage risks and improve their internal control in the face of complex challenges. By using a qualitative approach involving in-depth interviews with key stakeholders, this research is expected to provide practical recommendations that can be implemented by AJB Bumiputra 1912 and other insurance companies in Indonesia.

2. Literature Review

2.1. Internal audit

Internal Audit Standard No. 315 states that the control environment consists of communication and enforcement of integrity, ethical values, commitment to competence, management philosophy and operating style, organizational structure, assignment of authority and responsibility, and human resource practice policies.(Joanna, 2021).. Internal audit is an activity that must be carried out to ensure management objectives are achieved.(Aziz & Rahman, 2024). Internal audits must be independent, and internal auditors must be objective in carrying out their work.(Bastian et al., 2023). This is particularly important, especially for the insurance industry, which has high-risk characteristics.(Fatimah & Pramudyastuti, 2022).

Audit activities for insurance companies can be divided into several categories, including regular internal audits, accountability audits, special financial audits, information technology audits, efficiency audits, tracking audits, and external audits. Research shows that internal audit activities have a positive and significant impact on the quality of internal control procedures.(Fatimah & Pramudyastuti, 2022)Insurance companies, which manage public funds, need to have effective internal controls to prevent and detect fraud in various organizational settings.

Internal audits also serve to ensure that a company's internal controls are functioning properly and meeting its stated objectives. In the context of AJB Bumiputra, internal audits can help identify weaknesses in the control system and provide recommendations for improvement. Thus, internal audits focus not only on regulatory compliance but also play a role in improving the efficiency and effectiveness of the Company's operations.

Internal audit plays a crucial role in ensuring compliance and operational efficiency in insurance companies.(Eulerich & Lohmann, 2022)The size of the internal audit function is directly proportional to the level of transparency and the effectiveness of internal controls. Effective internal audits can identify weaknesses in control systems and provide recommendations for improvements that can prevent significant financial losses.

In the context of AJB Bumiputra, internal audit must be able to periodically evaluate existing policies and procedures. This aligns with research findings indicating that companies with robust internal audits tend to exhibit better financial performance.(Abdo et al., 2022)By implementing systematic internal audits, AJB Bumiputra can improve operational efficiency and reduce the risk of bankruptcy.

Statistics show that companies that implement regular internal audits experience a reduction in fraud and financial reporting errors of up to 25%.(Rosnidah et al., 2022). This demonstrates the importance of internal audit in maintaining the integrity of financial reporting and stakeholder trust. Therefore, AJB Bumiputra must strengthen its internal audit function to support the Company's sustainability and growth.

2.2. Audit based on the committee of sponsoring organizations

In 1985, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) was established to raise public awareness of internal control and set instructions for creating effective internal control.(Khersiat, 2020)The COSO framework places the highest priority on risk management, making it an integral part of the decision-making process across all institutional activities.(S. Bouheraoua & Djafri, 2022).. The implementation of COSO aims to strengthen internal control within the organization, which is very important for the survival of the Company.

A COSO Framework-based audit encompasses five key interrelated components: the control environment, risk assessment, control activities, information and communication, and monitoring activities. Each of these components plays a critical role in building an effective control system.

One of the components of COSO is the control environment, which has a positive influence on the quality of internal control procedures.(Aziz & Rahman, 2024)A good control environment creates an organizational culture that supports effective internal control. Internal auditors who are proactive in carrying out their duties have a significant positive impact on risk control.(Aziz & Rahman, 2024).. Research shows that implementing the COSO model can prevent fraud by up to 77.8%(Aziz & Rahman, 2024).

The importance of effective internal controls to prevent and detect fraud in an organization cannot be overstated. The COSO framework consists of five main components: control environment, risk assessment, control activities, information and communication, and monitoring.(Tarumasely & Astuti, 2023).. Each of these components is interrelated and contributes to the effectiveness of internal control.

a) Control Environment

The first component of COSO is the control environment. The control environment refers to the set of standards, processes, and structures that provide the foundation for implementing internal control throughout the organization. The board of directors and senior Management establish guidelines and lead by example, indicating the importance of internal control to the Company, including the code of ethics adopted.(Brivot et al., 2023)..The control environment is the foundation of an effective internal control system.

According to(Huang et al., 2025)A strong control environment creates an organizational culture that supports compliance and integrity. At AJB Bumiputra, it is important to build an environment that encourages openness, good communication, and a commitment to business ethics. This can be achieved through training and development for employees to understand the Company's values and the importance of internal control.

Management reinforces expectations at various levels of the organization. A company's ethical environment has a positive influence on the quality of its internal control procedures. In the context of AJB Bumiputra, it is crucial to create a robust control environment that supports transparency and accountability, thereby preventing fraud and abuse of authority.

b) Risk Assessment

Risk assessment is the process of identifying and analyzing risks that could impact a company's ability to achieve its objectives. In the context of AJB Bumiputra, the risk assessment should include analysis of market risk, operational risk, and reputational risk. (Liu & Kong,

2025) Companies that conduct proactive risk assessments can identify potential problems before they become larger crises. This allows AJB Bumiputra to develop appropriate mitigation strategies for each identified risk.

Although the control environment at an insurance company is sound, this does not mean the Company is free from business risks. Risk assessment forms the basis for determining how risks will be managed. (Xie, 2023). Risk is defined as the possibility that an event will occur and affect the achievement of organizational goals. (Abdelatif et al., 2023). Risk assessment requires Management to consider the impact of possible changes in the internal and external environment and potentially take actions to manage those impacts.

Essentially, every business carries risks; the greater the profit, the greater the risk. Therefore, risk needs to be managed properly. (Z. Wang, 2023). Risk management begins with mapping the risk itself. (Mashayekhi et al., 2023), so that management can more easily anticipate risks and minimize them as much as possible through mapping. (Kurniawan et al., 2023).

c) Control Activities

Control activities encompass policies and procedures designed to ensure that management directives are effectively implemented. At AJB Bumiputra, effective controls are essential for underwriting, claims, and investment management (Dávila et al., 2024). Companies that implement strict controls on their operational activities can significantly reduce the risk of bankruptcy. Therefore, AJB Bumiputra must ensure that all of its operational activities are properly monitored.

Management functions need to ensure that every plan that has been made can be implemented properly. Control activities are control policies and procedures that help ensure Management has identified the necessary actions to address risks and achieve organizational objectives effectively. Control activities can be preventive or detective in nature and can be carried out at all levels of the organization. (Osipov, 2021).

At the center of corporate activity control management, fund management requires scientific research and design of control activities to ensure the realization of internal control objectives. (Syzdykova, 2023). The capital activities of energy-producing companies, especially the flow of funds, are relatively simple. In combination with the steps outlined in the basic norms of internal control, the standard approval process for designing capital expenditures, as well as the process of managing the budget, use, and settlement of funds, establishes a routine of control activities. (Shygun et al., 2023).

d) Information and Communication

Information and communication systems capture and distribute the information needed to carry out, manage, and control an organization's operational activities. Information is obtained or generated by Management from both internal and external sources to support internal control components. (Citra, 2023). Communications based on internal and external sources are used to disseminate important information throughout and outside the organization, as needed to respond to and support the fulfillment of requirements and expectations. (Sheludko, 2023).

Internal communication of information throughout the organization also allows senior Management to demonstrate to employees that control activities are taken seriously. To ensure that all employees receive accurate and timely information, managers must communicate effectively, ensuring that the information is appropriately targeted at each employee's level of understanding. (Thottoli, 2020) Ineffective information and communication can create an uncondusive work environment and can lead to disputes among employees, thus impacting employee performance. (Annelin & Che, 2023).

Effective information and communication are key to ensuring that all parties in the organization understand their roles and responsibilities. According to (Nhan et al., 2025) Good communication can improve collaboration between departments and ensure that important information is delivered promptly. AJB Bumiputra needs to develop an information system that allows for the rapid and accurate flow of information throughout the organization.

e) Monitoring Activities

Monitoring activity is an ongoing process to ensure that the control system is functioning properly. According to (Matta & Chamoun, 2025) Companies that conduct regular monitoring can identify and correct weaknesses in their control systems. AJB Bumiputra must implement an effective monitoring mechanism to evaluate the performance of its internal control system and make necessary improvements.

Monitoring activities are periodic or ongoing evaluations to verify that each of the five components of internal control, including controls that affect the principles within each component, is present and functioning. A well-formulated work plan may not necessarily be achieved; therefore, to ensure the success of the work program, monitoring and evaluation are necessary. (Zafira & Hermawan, 2023). For a manager, the evaluation results can be used as a reference for the following year's work plan, the strategies to be created, as well as the strengths and weaknesses of past work plans, which can be used as experience and material for designing a sustainable work plan. (Aschauer & Quick, 2024).

Monitoring activities can be carried out actively or passively. Passive monitoring means that employees are unaware that their work is being monitored by their superiors, such as monitoring through email, the internet, or computer activity. (Campbell et al., 2023). Passive monitoring activities are activities that are known to the employees concerned, so that employees work well or pretend to work well because they are aware that monitoring activities are being carried out. (Sal-Sabilla Narita Kusnadi & Nanda Wahyu Indah Kirana, 2023).

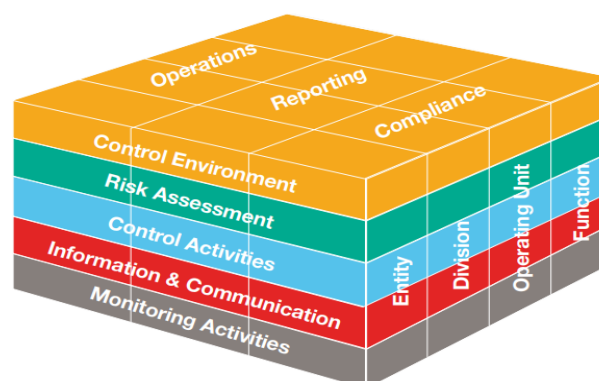


Fig. 1: COSO Framework.

2.3. Moral hazard

Moral hazard is the potential for dishonesty and carelessness on the part of the insured or beneficiary, which can increase losses. According to Keraf, morality is a system of values about how we should live well as human beings. These ethical values, understood and believed in, will be realized in real life, while hazard refers to something harmful. (Srimindarti et al., 2022).. In the insurance industry, moral hazard behavior is very dangerous because it can damage the moral order and is contrary to the principles of the insurance industry.

Research indicates that both internal and external factors can contribute to moral hazard in Islamic banking. One factor contributing to moral hazard is the imbalance of information. (Castillo & Mora-Valencia, 2023) Moral hazard is a type of asymmetric information, where one party can observe business management, while another party, who also has an interest, cannot observe it. (Salman, 2023) In the context of insurance companies, moral hazard can occur due to negligence or deliberate mismanagement of customer funds, which can result in losses for the Company and impact the insurance company's ability to pay customer claims that are due.

External moral hazard for insurance companies can occur when customers take negligent or deliberate actions that result in losses, leading to claims that the insurance company should not cover. Moral hazard can lead to serious financial imbalances, impacting claims reserves and asset liquidity. If insurance companies fail to manage risk effectively, it can lead to losses that may result in financial crises.

Moral hazard is a situation where one party is exposed to a risk that is unobservable by the other party, which can lead to irresponsible behavior. In the context of insurance companies, moral hazard can occur when policyholders feel protected from risk and engage in risky behavior. According to (Basu & Grace, 2022) Insurance companies need to develop strategies to reduce moral hazard, such as applying deductibles to claims or conducting stricter audits of submitted claims.

AJB Bumiputra must address moral hazard in its underwriting and claims policies. By implementing stricter controls and conducting more in-depth claims verification, the Company can mitigate potential losses due to moral hazard. Furthermore, educating policyholders about the risks and their responsibilities is crucial to minimizing risky behavior.

3. Methodology

This research design uses design thinking, which was first put forward by John E. Arnold in his book "Creative Engineering" in 1959. (Mukhtaromin, 2022). Design thinking is a design methodology that employs a solution-oriented approach to problem-solving. (Yulius et al., 2022). Design thinking is very appropriate to be used in the case of the crisis that hit AJB Bumiputra 1912, because the crisis that hit this Company was very complex and complicated.

Design Thinking is a methodological approach that focuses on problem-solving by prioritizing user needs and experiences. This approach combines creativity and analysis, making it highly relevant in research aimed at understanding human behavior. The following are the methodological steps in research using the Design Thinking approach: first, Empathize, which aims to understand the needs, problems, and experiences of users (stakeholders). Second, Problem Definition, which aims to process and analyze the collected data to define the problem that needs to be solved. Third, Ideate, which aims to generate creative ideas as solutions to the problem defined through brainstorming and Mind Mapping.

The Design Thinking approach in research methodology provides a flexible and creative framework for understanding and solving problems. By focusing on developing user-centered solutions, this research can generate insights and innovations that are more relevant to the real needs of society. Design thinking utilizes the COSO framework as an indicator to explore the financial crisis, as evidenced by customer claim defaults that occurred at AJB Bumiputra 1912. Using five COSO indicators can explain the problems that occurred in the Management at AJB Bumiputra 1912.

Data collection was conducted through in-depth interviews with several knowledgeable individuals who have a deep understanding of the insurance industry. The quality of the research is determined by the informants selected as data sources. Therefore, the researchers chose informants who are well-versed in the crisis that hit AJB Bumiputra 1912, such as former directors, former commissioners, the Financial Services Authority (OJK) in the field of insurance industry supervision in Indonesia, insurance observers/insurance experts, and academics. The researchers used triangulation to maintain data validity by comparing interview data with observations, documentation, and electronic data. Furthermore, data was also compared with electronic documents such as webinars and seminars held online.

4. Research Result

4.1. Factors causing the financial crisis at AJB Bumi Putra

Interviews with former directors and insurance experts indicate that the financial crisis experienced by AJB Bumiputra 1912, one of the largest and oldest insurance companies in Indonesia, was caused by several factors. The following are some of the main causes that can be identified:

- 1) Moral Hazard. At the beginning of its establishment in 1912, AJB Bumiputra 1912 was founded on the principles of family, cooperation, and national spirit, to improve the welfare of the community. AJB Bumiputra 1912 is the oldest and second largest insurance company in Indonesia, with 20 regional offices and 341 branch offices. As time went by, the leadership relay from the founding father to the next generation began to experience moral distortion, so that the leadership had forgotten the initial philosophy of the Company's founding. Collusion and corruption occurred at the top level between the directors and the member Representative Body; this was the beginning of the crisis.
- 2) Ineffective Financial Management: An imbalance in asset and liability management can lead to a liquidity crisis. Inappropriate or overly risky investment decisions often have negative impacts. Poor fund management, suboptimal fund utilization, and the inability to meet claim obligations promptly are signs of problems in financial Management.
- 3) Shrinking Reserves: Claim Reserves, namely the inadequate availability of reserves to pay claims, as well as the inability to calculate appropriate actuarial reserves, are one of the main causes of financial instability. Declining Premium Income, namely a decrease in income from insurance premiums accompanied by increased risks and claims, can reduce reserves that should be used to pay claims.
- 4) Internal Problems. Poor human resource quality, lack of training, and development within a company can impact operational efficiency and effectiveness. Corporate Culture and Risk Management: A culture that lacks transparency and an inability to systematically identify and manage risks can worsen a company's financial situation.

- 5) Third, Crisis of Trust from Customers. Assurance and Quality of Service: When a company experiences difficulty fulfilling claims or delays in payments, customer confidence decreases and can lead to customers canceling their policies. Negative Corporate Image: Negative news about the Company's financial performance and customer dissatisfaction leads to the loss of clients.
- 6) Macroeconomic Conditions. Recession and Declining Economic Growth: Unstable economic conditions can impact the insurance industry. Decreased purchasing power hinders premium growth and can increase claims. Unfavorable Interest Rates: Interest rate volatility can impact insurance companies' investment income.
- 7) Regulatory and Compliance Policy. Regulatory Changes: Changing government policies can create new challenges for insurance companies in terms of compliance and business model adjustments. Inadequate Reforms: Changes in organizational structure or ineffective operational methods to adapt to new regulations can trigger crises.
- 8) Increasing Competition. Market Shifts: The emergence of new insurance companies and disruptive technologies, such as InsurTech, in the insurance industry creates significant competitive pressure. Slow Product Innovation: The inability to deliver attractive insurance products that meet market needs can lead to a loss of market share.

The financial crisis experienced by AJB Bumiputra 1912 was the result of a combination of interrelated internal and external factors. To prevent a recurrence of a similar situation in the future, the Company must conduct a comprehensive evaluation of its financial management policies, operational transparency, and ability to adapt to market and regulatory changes.

4.2. Causes of the financial crisis: perception of the COSO framework

1) Perception of Control Environment

The Control Environment is the primary foundation for running other Committee of Sponsoring Organizations components, such as Risk Assessment, Control Activities, Information and Communication, and Monitoring Activities. This means that if the Control Environment operates effectively and efficiently, then the other components will also function effectively and efficiently, and vice versa. The Control Environment consists of six principles, namely (a) Commitment to integrity and ethical values. (b) Carrying out supervisory responsibilities. (c) Establishing the structure of authority and responsibility (d) Commitment to competency values (e) Encouraging Accountability.

Interview results indicate that the control environment is a crucial component of Bumiputra Insurance's internal control framework. This environment encompasses various aspects that influence organizational culture, management philosophy, and operational structure. All of these elements interact to support the achievement of the Company's business objectives. In this context, it is important to understand that if the control environment is not functioning properly, various problems can arise, which in turn can disrupt the continuity and success of the Company's operations.

One of the problems that can arise from a weak control environment is the lack of a culture of integrity and ethics. A company culture lacking integrity can create an atmosphere where abuse of power and fraud are more likely to occur. For example, suppose employees do not feel committed to the Company's ethical values. In that case, they may be more likely to engage in actions detrimental to the Company, such as manipulating financial data or embezzling funds. In the long term, this will not only impact the Company's reputation but can also result in significant financial losses. Therefore, Bumiputra Insurance must instill the values of integrity and ethics in every aspect of its operations.

Connecting all the points above, we can see that a strong control environment is crucial to the sustainability and success of Bumiputra Insurance. A strong culture of integrity and ethics will create a positive work environment, where employees feel valued and motivated to contribute optimally. Furthermore, a clear and effective control structure will support better decision-making, enabling managers to make strategic and profitable choices for the Company. Finally, by complying with applicable regulations, Bumiputra Insurance can avoid legal risks and maintain its public reputation.

The control environment serves as the foundation for effective internal control at Bumiputra Insurance. By strengthening a culture of integrity and ethics, improving decision-making processes, and ensuring regulatory compliance, the Company will be able to face existing challenges and achieve sustainable success. Therefore, it is crucial for Management to actively manage and monitor this control environment to create a healthy and highly competitive organization.

a) Commitment to integrity and ethical values.

An interview with a former Independent Commissioner demonstrated a commitment to integrity and ethical values. The interview revealed that AJB Bumiputra 1912 Insurance has experienced a significant decline in integrity since the 1980s. According to the former commissioner, this decline was caused by the ineffectiveness of the leadership relayed to the next generation. AJB Bumiputra 1912 Insurance itself was founded in 1912, during a time when the Company's founders highly valued the values of integrity, a spirit of togetherness, and cooperation. These values served as the foundation for the Company's sustainability and development, which has survived through various eras, from the Dutch colonial period to the Japanese occupation, and finally into the era of Indonesian independence.

Throughout its history, Asuransi AJB Bumiputra 1912 has weathered numerous challenges and changes. During the colonial era, the Company struggled to survive despite adverse conditions. The Company's founders, with a clear vision, successfully built trust within the community. They instilled noble values that underpinned the Company's operations, such as honesty, transparency, and commitment to customers. However, over time, particularly since the 1980s, these values have begun to fade.

The moral degradation occurring within the Management of AJB Bumiputra 1912 is currently very worrying, particularly among top Management, where decisions are oriented more toward personal interests than those of the Company and its customers. The leadership's audacity to violate AJB Bumiputra 1912's articles of association indicates a serious integrity crisis. One striking change is the process of electing the Member Representative Body (BPA), which is no longer conducted democratically. Previously, BPA members were elected by policyholders, but now they are chosen by branch managers. This has resulted in a reduction in policyholder representation and created dissatisfaction among customers.

The change in the number of BPA members has also come under scrutiny. From the eleven members stipulated in the articles of association, only five remain. This reduction not only reduces representation but also diminishes the effectiveness of oversight of the board of directors' policies. With fewer members, the possibility of strict oversight of the board's actions is reduced. This creates room for abuse of authority and non-transparent decision-making.

The journey of AJB Bumiputra 1912 Insurance, spanning over one hundred years, demonstrates the importance of integrity in the business world. The decline in integrity that has occurred since the 1980s is a call for a thorough evaluation of the management structure and organizational culture. By restoring the noble values that are the foundation of the Company, AJB Bumiputra 1912 can not only maintain its existence but also thrive in the future. Integrity must be a core commitment held firmly by every individual in the Company, so that customer trust can be rebuilt and the Company's reputation can be restored.

b) Carry out supervisory responsibilities.

More broadly, this situation illustrates the crisis of trust that can occur in the insurance and investment industries. When financial institutions fail to account for their investment decisions, this can have broader negative impacts, including a loss of trust from customers and investors. Trust is the foundation of every business relationship, and once lost, it is very difficult to restore. Therefore, Management must focus not only on short-term profits but also consider the long-term impact of every decision.

Allegations of moral hazard in the implementation of oversight responsibilities at AJB Bumi Putra reflect a broader problem in corporate governance. Violations of ethics, regulations, and contracts not only harm the Company financially but also erode public trust in the insurance industry as a whole. To prevent a recurrence of similar incidents, stricter oversight, clear criteria for appointing investment managers, and a strong commitment from Management to act transparently and responsibly are needed. Only in this way can financial institutions rebuild trust and ensure the sustainability of their operations in the future.

c) Establishing the structure of authority and responsibility

Referring to the Articles of Association of AJB Bumiputra 1912, the structure of authority and responsibility is well-defined. The organizational structure consists of a Member Representative Body elected directly by policyholders, consisting of 11 people representing policyholders throughout Indonesia. The ownership structure of AJB Bumiputra 1912 can be seen in Figure 2. The duties of the Member Representative Body include appointing and dismissing commissioners and directors. The Commissioners function to supervise the directors. Supervision by the Board of Commissioners is very necessary to ensure the effectiveness of the implementation of intra-group transaction risk management and compliance with applicable provisions. The authority and responsibility of the Board of Commissioners in implementing intra-group transaction risk management are as follows: (a) Approve the intra-group transaction risk management policy. (b) Evaluate the accountability of the Board of Directors and provide direction for improvements in the implementation of intra-group transaction risk management policy.

The authority and responsibility of the Board of Directors in intra-group transaction risk management are as follows: (a) Understand the intra-group transaction risks inherent in the financial conglomerate. (b) Prepare and determine intra-group transaction risk management policies. (c) Be responsible for implementing intra-group transaction risk management. (d) Ensure that each entity in the financial conglomerate implements intra-group transaction risk management. (e) Monitor intra-group transaction risks periodically. (f) Develop a risk culture as part of implementing intra-group transaction risk management. (f) Ensure that the implementation of intra-group transaction risk management is free from conflicts of interest between the financial conglomerate and individual LJK.

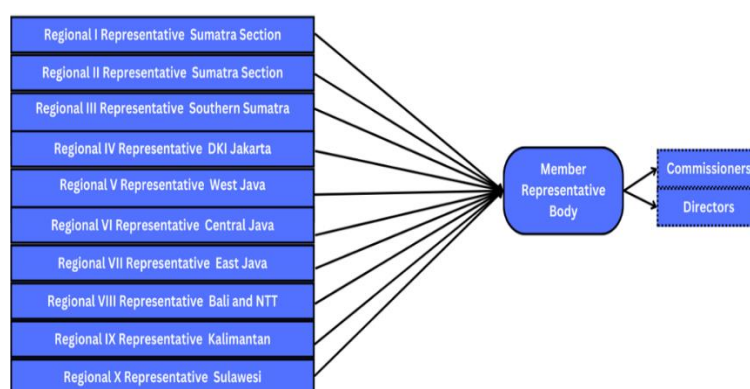


Fig. 2: Ownership Structure of AJB Bumi Putra.

Source: AJB Bumiputra's 1912 articles of association

However, in practice, violations occur starting from the election of the Member Representative Body as explained above, and collusion occurs at the top management level involving the Member Representative Body, Directors, commissioners, and branch managers, so that violations such as violations of the articles of association, financial embezzlement are easily committed. The peak of moral hazard occurs, so that it is out of control, if Management loses control and the organization becomes out of control, undesirable things can happen. Very severe damage peaks impact the Company's ability to pay customer claims that accumulate from year to year, reaching substantial values.

d) Commitment to competency values

Since the 1980s, the insurance company AJB Bumiputra 1912 has begun to abandon its original spirit of togetherness and cooperation. As a result, it no longer commits competence. AJB Bumiputra 1912's executives prioritize power and certain groups, prioritizing only the interests of their own group.

The executives of the AJB Bumiputra 1912 insurance company took steps to dismiss people who were considered to be at odds with their thinking, people who worked professionally and had competence in the field, such as dismissing commissioners and directors.

Collusion among some AJB Bumiputra 1912 executives led to the Company's closure, the absence of required annual financial reports, and the failure of internal controls, including independent audits of financial reports. On June 22, 2020, it was discovered that two commissioners were concurrently serving as both commissioner and president director. Commissioner ES was also acting as the acting director of finance and the acting director of engineering.

An interview with the Former Director of AJB Bumiputra 1912 stated that there had been collusion between the Member Representative Body, commissioners, and the board of directors. These three institutions play a very strategic role in creating Good Corporate Governance, but in fact, collusion had occurred in order to secure their respective interests. The Member Representative Body in these two periods was no longer elected by the policyholders (shareholders but was appointed by the board of directors), the duties and authorities of the Commissioners were no longer functioning and the board of directors carried out their duties no longer referring to the articles of association, such as the non-functioning internal audit, there were no periodic financial reports.

e) Promoting Accountability.

AJB Bumiputra 1912 Insurance Company faced a concerning situation between 2018 and 2020, during which it ceased to prepare financial reports that were accountable to policyholders and shareholders. This situation created deep concern among policyholders, who should have relied on transparency and accountability from the insurance company they trusted. The annual Members' Meeting, typically a crucial

forum for conveying information and soliciting input from shareholders, was also not held. This indicates a lapse in the Management and governance of the Company, which should adhere to the basic principles of transparency and accountability.

From data obtained through various sources, including interviews with insurance experts, former directors, and former commissioners, as well as information conveyed by the mass media, it can be confirmed that AJB Bumiputra 1912 did not implement the Control Environment framework. The control environment is the foundation of the internal control system, encompassing values, ethics, and organizational structure that support the achievement of company goals. When an organization ignores this aspect, certainly, other principles of COSO (Committee of Sponsoring Organizations of the Treadway Commission) will also not be able to run properly.

In conclusion, the situation faced by AJB Bumiputra 1912 between 2018 and 2020 provides valuable lessons on the importance of a control environment in insurance company governance. Without a robust internal control framework, not only is the Company's performance at risk, but public trust in the insurance industry as a whole is also at risk. Therefore, it is crucial for all stakeholders, including regulators, to ensure that insurance companies adhere to the principles of good governance in order to create a more transparent and accountable industry.

2) Perception Risk Assessment

The Control Environment is a crucial foundation within the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework. As the umbrella term for all other COSO components, the Control Environment creates a conducive environment for risk management and internal control within an organization. Without a robust Control Environment, the implementation of other components, such as Risk Assessment, will not be effective. This demonstrates that the Control Environment is not merely a supporting element but the core of the entire control system.

Referring to AJB Bumiputra's 1912 articles of association, the primary objective of intra-group transaction risk management is to regulate and supervise financial conglomerate transactions by prioritizing the principle of prudence. This principle is crucial in the context of risk management, as intra-group transactions often involve significant amounts of funds and can impact the financial stability of the entire conglomerate. For example, in practice, if one Financial Services Institution (FSI) experiences losses due to poorly managed transactions, the impact can spread to other FSIs within the same conglomerate. Therefore, strict supervision and clear regulations regarding intra-group transactions are essential to minimize this risk.

Effective risk management also serves to ensure that potential negative impacts arising from interdependence between financial services institutions (FSI) are minimized. This interdependence can be direct, such as when one FSI lends to another, or indirect, as when market fluctuations impact the value of investments held by several FSIs within the same conglomerate. For example, if one FSI experiences liquidity difficulties, this can lead to a decline in market confidence, which in turn impacts the share value of other FSIs. Therefore, it is crucial for risk management to conduct an in-depth analysis of potential risks and formulate appropriate mitigation strategies.

The Control Environment serves as a crucial foundation for the broader control system, and without it, the entire risk management process, including Risk Assessment, will not be effective. Referring to the risk management objectives of AJB Bumiputra 1912's intra-group transactions, we can see the importance of strict oversight and regulation in preventing potential losses caused by interdependence between financial services institutions (FSI). The alleged investment fraud case in the capital market highlights the need for more in-depth audits and analysis to ensure the integrity of the existing investment system. Therefore, building an organizational culture that supports ethics and transparency is a crucial step in creating a healthy and sustainable environment for risk management.

3) Perception of Control Activities

Referring to the articles of association of AJB Bumiputra 1912, the implementation of Control Activities encompasses four components that are crucial for maintaining the integrity and efficiency of the Company's operations. First, oversight by the Board of Commissioners and the Board of Directors is crucial. The Board of Commissioners is responsible for overseeing the policies and strategic decisions taken by the Board of Directors. In practice, this oversight is not merely a formality but must involve an in-depth analysis of the Company's performance. For example, in monthly meetings, the Board of Commissioners should carefully evaluate financial reports and operational performance and provide constructive feedback. However, if this oversight is not carried out effectively, deviations can occur that are detrimental to the Company.

Second, the adequacy of policies, procedures, and the establishment of risk limits for intra-group transactions is also crucial. Clear policies and standardized procedures will help minimize the risks that may arise from uncontrolled inter-group transactions. For example, a policy setting a maximum transaction limit between subsidiaries can prevent high-risk transactions that could harm the Company as a whole. However, this policy must be implemented consistently and closely monitored to prevent abuse.

Third, the adequacy of the process for identifying, measuring, monitoring, and controlling intra-group transaction risks is equally important. This process must be carried out systematically and continuously to ensure that any potential risks are detected early. For example, the use of sophisticated risk management software can help companies identify and measure risks that may arise from intra-group transactions. With effective monitoring, companies can take necessary mitigation measures before these risks become larger problems. However, a common challenge is the lack of accurate and relevant data to support this process.

Fourth, a comprehensive internal control system for implementing intra-group transaction risk management is vital. This system must cover all aspects of the Company's operations and must be well integrated to function effectively. For example, regular internal audits can help assess the effectiveness of this control system. With proper audits, any weaknesses in the system can be identified and corrected. However, if the audits are not conducted independently or if the audit results are not acted upon, the internal control system will not function properly. In conclusion, the implementation of Control Activities at AJB Bumiputra 1912 requires serious attention from all parties, especially the Board of Commissioners and Directors. The four components discussed—supervision, policies and procedures, risk identification and control processes, and internal control systems—must be integrated and implemented consistently. Without commitment and integrity from all parties, including the prevention of collusion, the goal of maintaining the Company's health and sustainability will be difficult to achieve. Therefore, it is crucial for the Company to continuously evaluate and improve every aspect of its Control Activities to achieve optimal performance and maintain stakeholder trust.

4) Perception of Information and Communication

Interviews with former directors revealed that the implementation of the Information and Communication system at AJB Bumiputra 1912 was no longer effective. This demonstrates the Management's inability to manage the Company's internal and external communications. Management tends to be secretive, especially regarding financial information, which should be transparent to maintain the trust of customers and other stakeholders. When information is not communicated clearly, this creates loopholes that can be exploited by certain parties to spread misleading information, which in turn can harm the Company itself.

Interviews with informants revealed a public lie perpetrated by Bumi Putra's Management. Management, even down to the branch office level, claimed the Company's legal status was a State-Owned Enterprise (BUMN). This statement was clearly highly misleading, as many customers assumed they were investing in a company that was secure and guaranteed by the state. Consequently, many customers felt

deceived when they learned the truth: AJB Bumiputra 1912 did not have BUMN status. This created deep dissatisfaction and disappointment among customers, who felt their right to accurate information had been violated.

The situation facing AJB Bumiputra 1912 highlights the importance of transparency and effective communication in corporate Management. Public misconduct by Management not only harms customers but can also damage the Company's reputation in the long term. Customers have the right to clear and accurate information regarding the Company's status and the risks they face. Therefore, Management must take immediate corrective measures, including improving communication systems and educating customers about the products they offer. This way, the Company can rebuild customer trust and create stronger relationships in the future.

5) Perception of Monitoring Activities

Referring to AJB Bumiputra's 1912 articles of association, monitoring of intra-group transactions is carried out by considering several important aspects that play a role in maintaining the Company's financial integrity and transparency. First, the composition of the inherent risk parameters for intra-group transactions, as listed in the integrated risk profile report, is crucial. These parameters encompass various indicators that provide an overview of the potential risks arising from transactions conducted between entities within the group. For example, if an entity within the group has a high level of debt, this can affect the ability of other entities in the group to meet their financial obligations. Therefore, careful monitoring of these parameters is crucial to prevent future risks from occurring.

Interviews with former Commissioners of AJB Bumiputra 1912 revealed that weak monitoring of intra-group and extra-group transactions was one of the causes of Bumi Putra's financial crisis. In such a situation, a deeper analysis of the factors contributing to this weak oversight is crucial. One possibility is the lack of competent human resources for effective monitoring. If the responsible team lacks adequate expertise, the risk of errors in transaction oversight increases.

4.3. Solutions to overcome the financial crisis at AJB Bumiputra 1912

AJB Bumiputra 1912 was declared to be experiencing a financial crisis in 2016. That year, the Financial Services Authority (OJK) identified several issues in the Company's financial and operational Management, which resulted in the Company being unable to meet its claims obligations to its customers and policyholders. According to the 2021 audited financial report, Bumiputra's assets were recorded at IDR 9.5 trillion, and its liabilities at IDR 32.8 trillion, resulting in a difference of IDR 23.3 trillion between assets and liabilities, which exceeds its liabilities.

Starting in 2023, the Management was asked by the OJK to create a Company Financial Recovery Plan (P-RPK), where the OJK supervises the implementation. The Company Financial Recovery Plan consists of (1) selling fixed assets to become liquid assets, (2) Reducing Benefit Value, (3) Rationalizing HR, and (4) Organizational Restructuring. This is in accordance with OJK Letter No.S-20/D.05/2024 dated July 1, 2024, regarding the Statement of No Objection to the Revised Financial Recovery Plan of AJB Bumiputera 1912.

1) Selling tangible assets into liquid assets

The Company's first strategic move was to convert fixed assets into liquid assets. Fifty percent of the proceeds from the sale were allocated to pay out outstanding claims, with the remainder being invested. This effort aimed to reduce outstanding claims and improve the Company's liquidity ratio, while the investment was expected to boost profits.

2) Benefit Value Deduction

The second strategy is Benefit Reduction. AJB Bumiputra 1912 is a purely private company in the form of a mutual fund. The uniqueness of AJB Bumiputra 1912's business entity structure presents different challenges than those of other insurance companies, thus requiring distinct solutions. Bumiputra's mutual fund business entity structure has consequences for policyholders. If the Company experiences losses, all policyholders must bear the losses proportionally based on their insurance premiums.

The Benefit Reduction (PNM) policy outlined in the Financial Recovery Plan is the best course of action to save policyholders by continuing the business of AJB Bumiputera 1912. This step was taken with a heavy heart, as we fully understand the difficulties faced by policyholders. The benefit reduction represents a compromise the Company must take to ensure the joint venture continues and policyholders receive delayed claim payments at a 50% reduction.

3) Organizational restructuring

The third strategy for corporate recovery is a service office reorganization program by resizing or restructuring AJB Bumiputera 1912's operational offices across Indonesia. As of June 30, 2022, AJB Bumiputera 1912 had 2,017,940 policyholders. These included 1,572,832 individual policyholders and 445,108 group insurance policyholders. Based on AAJI data from the fourth quarter of 2022, Bumiputera ranked second out of 60 life insurance companies operating in Indonesia in terms of policyholders.

To increase the efficiency of the Company's operational costs, the Operational Offices, consisting of 20 (twenty) Regional Offices, were merged into 11 (eleven) Regional Offices. 341 (three hundred and forty-one) Branch Offices were merged into 100 (one hundred) Branch Offices.

4) Human Resource Rationalization

The fourth strategy for corporate health is a human resource rationalization program by reducing the number of employees, in order to achieve ideal organizational conditions for the sake of achieving the efficiency of the Company's operational performance. Human Resource Rationalization is a follow-up to the merger of services and administration in operational offices. Human Resource Rationalization is carried out in stages over 8 (eight) months by considering the process of merging services and administration in operational offices, as well as the availability of funds from property asset conversion or other sources. The number of employees who underwent rationalization is 734 employees from 1,100 employees, so that currently the number of employees is 366.

5) COSO Framework Perception Solution

AJB Bumiputra 1912's recovery strategy requires all policyholders to return to the Company's original spirit, namely ethical values and management philosophy in accordance with the COSO framework. All stakeholders must return to the spirit of cooperation that prioritizes shared interests and benefits. Second, the establishment of a Member Representative Body to represent policyholders. Third, the Member Representative Body elects directors and commissioners who are professional and have high integrity. Fourth, all policyholders are willing to bear the Company's losses proportionally.

Encouraging stakeholders to return to their original nature, referring to the COSO framework, means returning company management to the basic principles of ethics, transparency, and integrity that should be the foundation of Bumiputra Insurance's operations. This could include various efforts to strengthen Management, improve performance, and rebuild stakeholder trust. Strategic steps that can be taken include Corporate Culture Improvement, which involves building or strengthening a corporate culture focused on ethics, integrity, and regulatory compliance. This includes fostering core values among all employees and Management.

5. Conclusion

The financial crisis experienced by AJB Bumiputra 1912 was the result of a combination of interrelated factors, including ineffective Management, violations of internal control principles, and a loss of integrity within the organizational structure. This study shows that the implementation of the COSO Framework, particularly in the aspects of Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring Activities, is crucial to improving the Company's condition and avoiding similar crises in the future.

Data shows that the severe solvency crisis, with unpaid claims reaching 32 trillion rupiah, reflects weaknesses in risk management and internal controls. Therefore, strengthening management integrity and implementing COSO principles are crucial steps to restore customer and stakeholder trust. Awareness of the importance of transparency, accountability, and ethics in corporate governance must be a top priority to create a healthy organizational culture.

As a recovery measure, AJB Bumiputra needs to implement a Financial Recovery Plan that includes the sale of fixed assets for liquidity, a reduction in policyholder benefits, and organizational restructuring and human resource rationalization. Implementation of these measures is expected to increase the Company's liquidity and improve its overall financial performance.

6. Suggestion

From the results of this study, several suggestions can be given to AJB Bumiputra and other insurance companies in Indonesia:

- 1) Implementing the COSO Framework: All insurance companies must comprehensively implement the COSO Framework to strengthen internal control and risk management. Training and outreach on COSO principles should be conducted for all levels of Management and employees.
- 2) Building an Ethical Culture: It's crucial to build an organizational culture that prioritizes ethics and integrity. Companies must educate employees about ethical values and the importance of regulatory compliance.
- 3) Strengthening Internal Audit: The internal audit function must be strengthened to ensure that all policies and procedures are properly followed. Independent and transparent audits can help detect and prevent potential abuse.
- 4) Information Transparency: Companies must commit to providing accurate and transparent information to policyholders and other stakeholders. This will rebuild public trust in insurance companies.
- 5) Collaboration with Regulators, Insurance companies need to establish good relations with the Financial Services Authority (OJK) to ensure compliance with regulations and obtain guidance in risk management.

7. Competing Interests

The authors declare that they have no financial or personal relationships that might have inappropriately influenced their writing of this article.

8. Author's Contribution

A contributed to the conceptualization, methodology, formal analysis, investigation, writing the original draft, and reviewing and editing the final draft. YA played a significant role in the conceptualization, methodology, formal analysis, and writing the original draft. Additionally, H contributed to the validation, review, and editing of the final draft and secured funding for the research.

9. Funding Information

This research did not receive any specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

- [1] Abdelatif, A., Nettour, D., Chaib, R., Verzea, I., & Bensehamdi, S. (2023). Improvement of enterprise risk visualization: risk mapping. *Technology Audit and Production Reserves*, 6(2(74)), 28–36. <https://doi.org/10.15587/2706-5448.2023.291959>.
- [2] Abdo, M., Feghali, K., & Zgheib, M. A. (2022). The role of emotional intelligence and personality on the overall internal control effectiveness: applied on internal audit team member's behavior in Lebanese companies. *Asian Journal of Accounting Research*, 7(2), 195–207. <https://doi.org/10.1108/AJAR-04-2021-0048>.
- [3] Agustian, W., & Nugroho, K. (2020). Analisis Dampak Negatif Dari Terjadinya Konflik Antar Karyawan Pada Asuransi Jiwa Bersama Bumi Putera 1912 Kota Palembang. *Jurnal Ilmiah Bina Manajemen*, 3(2), 122–133.
- [4] Annelin, A., & Che, L. (2023). Audit Team Distance and Audit Quality Threatening Behavior. *Auditing: A Journal of Practice & Theory*, September, 1–23. <https://doi.org/10.2308/AJPT-2019-514>.
- [5] Aschauer, E., & Quick, R. (2024). Implementing shared service centres in Big 4 audit firms: an exploratory study guided by institutional theory. *Accounting, Auditing & Accountability Journal*, 37, 1–28. <https://doi.org/10.1108/AAAJ-07-2021-5376>.
- [6] Astrie, N., & Toto Tohir Suriaatmaja. (2022). Peran Otoritas Jasa Keuangan (OJK) dalam Penegakan Hukum terhadap Perusahaan Asuransi Jiwa Bersama (AJB) Bumiputera 1912 atas Pembayaran Dana Asuransi Pendidikan kepada Nasabah Dihubungkan dengan Undang-Undang Nomor 21 Tahun 2011. *Bandung Conference Series: Law Studies*, 2(1), 22–29. <https://doi.org/10.29313/bcsls.v2i1.409>.
- [7] Aziz, A., & Rahman, A. A. (2024). The effect of applying COSO-ERM model on reducing fraudulent financial reporting of commercial banks in Jordan. [https://doi.org/10.21511/bbs.13\(2\).2018.09](https://doi.org/10.21511/bbs.13(2).2018.09).
- [8] Bastian, N., Ardha, D., Riwajanti, N. I., & Haris, Z. A. (2023). Fishbone diagram : Application of root cause analysis in internal audit planning. 5(3), 297–309. <https://doi.org/10.35912/ijfam.v5i3.1498>.
- [9] Basu, S., & Grace, M. F. (2022). Insurance: in or out of the 'too difficult' box? *Accounting and Business Research*, 52(5), 510–535. <https://doi.org/10.1080/00014788.2022.2080350>.
- [10] Bouheraoua, S., & Djafri, F. (2022). Adoption of the COSO methodology for internal Shari'ah audit. *ISRA International Journal of Islamic Finance*, 14(2), 221–235. <https://doi.org/10.1108/IJIF-04-2020-0071>.

- [11] Brivot, M., Roussy, M., & Gendron, Y. (2023). The Riskification of Internal Auditors' Ethical Deliberation: An Emerging Third Logic Between Norms and Values? *Journal of Business Ethics*, 0123456789. <https://doi.org/10.1007/s10551-023-05575-x>.
- [12] Campbell, C., Webster, C., Parisi, M., Sherafat-Kazemzadeh, R., Braid, J., Switzer, T., Favaro, M., Sassano, C., & Coravos, A. (2023). *An Aligned Framework of Actively-collected and Passively-monitored Clinical Outcome Assessments (COAs) for Measure Selection*. <https://doi.org/10.31219/osf.io/w7ze3>.
- [13] Castillo, J. A., & Mora-Valencia, A. (2023). The effect of moral hazard on the SMEs credit portfolio guaranteed by Colombia's National Guarantee Fund. *Estudios Gerenciales*, 39(168), 379–386. <https://doi.org/10.18046/j.estger.2023.168.5961>.
- [14] Citra, V. (2023). Communication and Psychology Audit in Internal Audit Assignment. *Accounting and Finance Studies*, 3(2), 83–96. <https://doi.org/10.47153/afs32.6332023>.
- [15] Dávila, A., Derchi, G. B., Oyon, D., & Schnegg, M. (2024). External complexity and the design of management control systems: a case study. *Management Accounting Research*, 63(December 2021). <https://doi.org/10.1016/j.mar.2023.100875>.
- [16] Eulerich, M., & Lohmann, C. (2022). Information Asymmetries and Intra-Company Monitoring: an Empirical Analysis of Nonlinear Relationships Between Company Characteristics and the Size of the Internal Audit Function. *Schmalenbach Journal of Business Research*, 74(1), 103–127. <https://doi.org/10.1007/s41471-021-00128-2>.
- [17] Fatimah, K., & Pramudyastuti, O. L. (2022). Analisis Peran Audit Internal Dalam Upaya Pencegahan Dan Pendeteksian Kecenderungan Kecurangan Akuntansi (Fraud). *Jurnal Ilmiah Akuntansi Dan Bisnis*, 7(2), 235–243. <https://doi.org/10.38043/jiab.v7i2.3794>.
- [18] Gajewski, J. F., & Tran Dieu, L. (2021). Determinants and performance of outsourcing in the european mutual fund market. *Journal of International Financial Markets, Institutions and Money*, 73, 1–17. <https://doi.org/10.1016/j.intfin.2021.101346>.
- [19] Huang, L., Abrahams, A., Sithipolvanichgul, J., Gruss, R., & Ractham, P. (2025). Identifying accounting control issues from online employee reviews. *Data Science and Management*, 8(3), 248–256. <https://doi.org/10.1016/j.dsm.2025.02.001>.
- [20] Huy, D. T. N., & Diep, N. T. (2023). Further Analysis of Some Northern Asian Corporate Governance Standards After the Global Crisis: Cases in Bangladesh and Mongolia. *International Journal of Asian Business and Information Management*, 14(1), 1–15. <https://doi.org/10.4018/IJABIM.330679>.
- [21] Joanna, P. (2021). *In Search of the Theory of Internal Audit*. December 2019.
- [22] Khersiat, O. M. (2020). The efficiency of applying the internal control components based on COSO framework to transparently carry out tasks and services, ensure integrity and enhance quality and efficiency: Case study-the greater amman municipality. *International Journal of Financial Research*, 11(2), 371–381. <https://doi.org/10.5430/ijfr.v11n2p371>.
- [23] Kurniawan, T., Bukit, R. B., & Erwin, K. (2023). *The Factors Influencing the Risk Based Internal Audit in Improving the Effectiveness of Internal Audit*. 7(4), 1030–1041. <https://doi.org/10.23887/ijssb.v7i4.51371>.
- [24] Liu, Z., & Kong, T. (2025). Evaluation of Enterprise Internal Control Based on Artificial Intelligence. *Procedia Computer Science*, 262, 1217–1227. <https://doi.org/10.1016/j.procs.2025.05.163>.
- [25] Markham, J. W. (2022). *From Enron to Reform, A Financial History of the United States 2001–2004*. <https://doi.org/10.4324/9781003247135>.
- [26] Mashayekhi, B., Dolatzarei, E., Faraji, O., & Rezaee, Z. (2023). Mapping the state of expanded audit reporting: a bibliometric view. *Meditari Accountancy Research*. <https://doi.org/10.1108/MEDAR-09-2022-1809>.
- [27] Matta, J., & Chamoun, E. (2025). Exploring auditor adaptability in the digital era through levels of expertise: The role of IT literacy. *Digital Business*, 5(2), 100126. <https://doi.org/10.1016/j.digbus.2025.100126>.
- [28] Mukhtaromin. (2022). *Mengenal Design Thinking*. Balai Diklat Menteri Keuangan Republik Indonesia. <https://bppk.kemenkeu.go.id/balai-diklat-keuangan-pontianak>
- [29] Nhan, V. T. T., Dung, N. N. K., & Phuoc, T. (2025). A study on the impact of accounting information security controls on the effectiveness of internal controls in Vietnamese enterprises. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100470. <https://doi.org/10.1016/j.joitmc.2025.100470>.
- [30] Osipov, V. (2021). *Control and audit of the activities of a commercial organization: external and internal*. <https://doi.org/10.12737/1137320>.
- [31] Ramos, F. M., Locatelli, L. G., Azevedo, G., & Costa, C. M. (2022). The effect of social ties between the CEO and board of directors and fiscal council's members on earnings management. *Journal of Accounting in Emerging Economies*, 13(3), 613–647. <https://doi.org/10.1108/JAEE-07-2021-0243>.
- [32] Rosnidah, I., Johari, R. J., Mohd Hairudin, N. A., Hussin, S. A. H. S., & Musyaffi, A. M. (2022). Detecting and preventing fraud with big data analytics: Auditing perspective. *Journal of Governance and Regulation*, 11(4), 8–15. <https://doi.org/10.22495/jgrv11i4art1>.
- [33] Sal-Sabilla Narita Kusnadi, & Nanda Wahyu Indah Kirana. (2023). The Influence of Blueprints on Internal Audit Monitoring System (IAMS) Application Development. *Sustainable Business Accounting and Management Review*, 5(3), 1–10. <https://doi.org/10.61656/sbamr.v5i3.111>.
- [34] Salman, K. R. (2023). Exploring Moral Hazard and Adverse Selection in Profit Sharing Contract. *International Journal of Professional Business Review*, 8(3). <https://doi.org/10.26668/businessreview/2023.v8i3.955>.
- [35] Sheludko, S. (2023). Sources of Legal Regulation of Compliance in Ukrainian Banks. *Law and Innovations*, 34–40. [https://doi.org/10.37772/2518-1718-2023-2\(42\)-4](https://doi.org/10.37772/2518-1718-2023-2(42)-4).
- [36] Shygun, M., Bezverkhyi, K., Pylypenko, O., Yurchenko, O., & Poddubna, N. (2023). Presenting Financial Information in Digital Formats As a Base for Analysis and Audit of Business Activities of Enterprises. *Financial and Credit Activity Problems of Theory and Practice*, 6(53), 233–246. <https://doi.org/10.55643/fcaptp.6.53.2023.4165>.
- [37] Srimindarti, C., Ashobah, S. N. F., Hardiningsih, P., & Yunianto, A. (2022). Does Moral Reasoning Moderate Audit Quality Determinants? *International Journal of Applied Economics, Finance and Accounting*, 14(2), 162–169. <https://doi.org/10.33094/ijae.v14i2.693>.
- [38] Syzykova, E. Z. (2023). Audit Activities of the Accounts Committee for Control over Execution of the Republican Budget of the Republic of Kazakhstan: Analysis and Evaluation of Key Indicators. *Bulletin Of The Karaganda University. Economy Series*, 107, 173–180. <https://doi.org/10.31489/2022ec3/173-180>.
- [39] Tarumasely, S., & Astuti, T. D. (2023). Evaluasi Sistem Pengendalian Internal: Aset Tetap Berdasarkan Committee of Sponsoring Organization (COSO) Framework Pada PT. Lingkar Organik Indonesia Tahun 2022. *Jurnal Akuntansi Dan Keuangan West Science*, 2(03), 231–240. <https://doi.org/10.58812/jakws.v2i03.551>.
- [40] Thottoli, M. (2020). Characteristics of information communication technology and audit practices: evidence from India. *VINE Journal of Information and Knowledge Management Systems, ahead-of-p*. <https://doi.org/10.1108/VJKMS-04-2020-0068>.
- [41] Wang, Z. (2023). Based on the Big Data Audit Risk Model Audit Process Research. *Frontiers in Business, Economics and Management*, 11(1), 23–26. <https://doi.org/10.54097/fbem.v11i1.11598>.
- [42] Xie, Z. (2023). A Brief Discussion of Audit Risks and Their Causes. *Proceedings of Business and Economic Studies*, 6(6), 98–103. <https://doi.org/10.26689/pbes.v6i6.5880>.
- [43] Yulius, R., Nasrullah, M. F. A., Sari, D. K., & Alban, M. A. (2022). Design Thinking: Konsep dan Aplikasinya. *Eureka Media Aksara*, 1–74.
- [44] Zafira, A., & Hermawan, A. (2023). The Role of Audit Committee and Risk Monitoring Committee on Firm's Hedging Practice. *E-Jurnal Akuntansi*, 33. <https://doi.org/10.24843/EJA.2023.v33.i10.p10>.