

# STRATEGIC GOVERNANCE, LEADERSHIP INTEGRITY, AND STAKEHOLDER ENGAGEMENT IN RESPONSIBLE AI ADOPTION IN SECURITY SERVICE INDUSTRY

**Hotasi Albin Sumitro<sup>1</sup> Achmad Fajar Hendarman<sup>2</sup>**

<sup>1,2</sup> Master of Business Administration Program, Institut Teknologi Bandung

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## Abstract

The security service industry is increasingly adopting Artificial Intelligence (AI) to enhance surveillance accuracy, operational efficiency, and decision-making processes. Despite its benefits, AI adoption in this sector raises significant concerns related to ethical responsibility, governance, and stakeholder trust. This study examines the role of strategic governance, leadership integrity, and stakeholder engagement in shaping responsible AI adoption within the security service industry. A quantitative research approach was employed using survey data collected from employees across different managerial levels and functional units within a security service organization. The data were analyzed using multiple linear regression after meeting validity, reliability, and classical assumption requirements. The results indicate that strategic governance, leadership integrity, and stakeholder engagement each have a positive and statistically significant effect on responsible AI adoption. Leadership integrity emerges as the most influential factor, highlighting the importance of ethical leadership behavior in guiding responsible technology use.

**Keywords:** *Strategic Governance; Leadership Integrity; Stakeholder Engagement; Responsible AI Adoption; Security Service Industry*

## INTRODUCTION

The rapid advancement of digital technologies has reshaped the operational landscape of the global security industry. Artificial Intelligence (AI) particularly in forms such as video analytics, facial recognition, biometrics, and automated monitoring has become central to enhancing surveillance accuracy and operational efficiency (World Economic Forum, 2024). These technologies allow security companies to detect incidents more effectively and manage large-scale monitoring systems with greater precision. However, their adoption also introduces challenges related to data privacy, algorithmic fairness, ethical usage, and regulatory compliance (OECD, 2023). For companies like PT Sinar Prapanca, which operate in a sector where trust and accountability are essential, these technological shifts require careful evaluation and strategic adaptation. Despite the potential benefits, AI adoption often outpaces the development of internal governance frameworks, creating uncertainty about risk management, transparency, and accountability. Many organizations face gaps in formal policies, oversight structures, and ethical guidelines when integrating AI into their operations (Deloitte, 2025). Leadership plays a critical role in navigating these challenges, as leaders must balance technological efficiency with ethical considerations and long-term strategic values. last La Niña event occurred in June 2006 before reoccurring in August-November 2016 and November 2017- March 2018. Following the La Niña event in early 2018, a weak El Niño event occurred from October 2018 to March 2020. The 2019 El Niño event was then followed by another La Niña event from 2020 to 2022. Rainy and dry seasons are some of the main causes of fluctuations in palm oil production and productivity. Therefore, understanding the effect of weather on the growth and production of palm oil bunches can be used as a basis for predicting and evaluating the productivity of fresh fruit bunches (FFB). Based on this, it is necessary to conduct a study on ‘The Effect of Rainfall on Planting Area and Oil Palm Production in the Highlands of Deli Serdang Regency, North Sumatra Province’.

## 1. Background

In recent years, the global business world has faced unprecedented disruptions, fueled by rapid technological progress, economic fluctuations, environmental issues, and growing societal calls for ethical and transparent

management. Among these factors, Artificial Intelligence (AI) has emerged not just as a technological breakthrough, but as a transformative force reshaping organizational strategies and operations across various sectors.

## **2. Company Profile**

PT Sinar Prapanca is a licensed security service provider. They experience in Law Enforcement, Military, Human Resources, Finance and Information Technology. PT Sinar Prapanca also been certified by the International Standard Organization (ISO), Quality Management System – ISO 9001:2015, Occupational Health & Safety Management System – ISO 45001:2018, also members of ABUJAPI and Kamar Dagang Indonesia. PT Sinar Prapanca has been operating for more than 12 years in almost all regions in Indonesia and employs thousands of personnel under PT. Sinar Prapanca. have various security services such as On-Site Security, CCTV & Alarm Monitoring, VVIP Escort and Risk Assessment.

## **3. Business Issue**

The involvement of multiple stakeholders further increases the managerial complexity of AI adoption. Boards of directors and senior management are expected to exercise strategic oversight and ethical judgment, regulators demand compliance with evolving legal standards, employees are affected by algorithm-driven operational changes, and clients increasingly scrutinize how AI systems manage sensitive data. Investors also regard an organization's approach to AI governance as an important indicator of long-term sustainability and risk management capability (Freeman, 1984; Financial Times, 2024).

## **4. Research Questions and Research Objectives**

Based on the background and business issues discussed earlier, this study seeks to explore how organizations specifically PT Sinar Prapanca as a case in the security services industry can navigate the challenges of AI adoption through strategic governance and ethical leadership.

## **LITERATURE REVIEW**

Based on the research background, the theoretical foundation that supports this research by exploring key concepts, models, and previous studies relevant to the organizational context of PT Sinar Prapanca. As the company navigates the transition toward AI-assisted security operations, a strong understanding of the underlying literature becomes essential to assess how governance structures, leadership integrity, stakeholder involvement, and responsible AI practices shape organizational performance. By linking previous studies with the business context of PT. Sinar Prapanca, the literature review forms a strong theoretical framework that supports the formulation of hypotheses and guides the overall research design.

### **1. Theoretical Foundation**

This research begins with the recognition that strategic governance should not be reduced to a passive control mechanism, but rather a dynamic instrument that actively shapes leadership integrity, stakeholder trust, and long-term sustainability.

### **2. Strategic Governance and AI Adoption**

The rapid diffusion of Artificial Intelligence (AI) has fundamentally reshaped business strategy and operations across industries. For many organizations, AI adoption is no longer optional but a strategic imperative. Yet, while AI offers unprecedented opportunities ranging from operational efficiency to predictive insights its deployment also introduces complex risks. These risks are not merely technical but ethical, legal, and reputational. As such, governance must evolve from a compliance driven function into a strategic mechanism that integrates ethics, risk management, and innovation.

### **3. Conceptual Framework**

A strong conceptual framework is essential to guide this study in addressing the research questions. This framework synthesizes three interrelated theoretical pillars Corporate Governance Theory, Ethical Leadership Theory, and Stakeholder Theory into an integrated model that explains how organizations can responsibly adopt Artificial Intelligence (AI) while safeguarding integrity, trust, and sustainability.

## RESEARCH METHODOLOGY

### 1. Research Design

This research used a quantitative correlational survey design to examine the relationship between perceived namely Strategic Governance ( $X_1$ ), Leadership Integrity ( $X_2$ ), and Stakeholder Engagement ( $X_3$ ), and, Responsible AI Adoption ( $Y$ ). Besides it focused on determining whether significant and positive relationships exist among these variables based on employees' perception as well. This study is cross-sectional, with data collection that measures at a specific time. This stage ensures that the research focuses on real and strategic organizational problems rather than theoretical assumptions, allowing the study to address issues that directly affect decision-making, trust, and long-term performance in the security services industry. This research used a quantitative correlational survey design to examine the relationship between perceived namely Strategic Governance ( $X_1$ ), Leadership Integrity ( $X_2$ ), and Stakeholder Engagement ( $X_3$ ), and, Responsible AI Adoption ( $Y$ ). Besides it focused on determining whether significant and positive relationships exist among these variables based on employees' perception as well. This study is cross-sectional, with data collection that measures at a specific time.

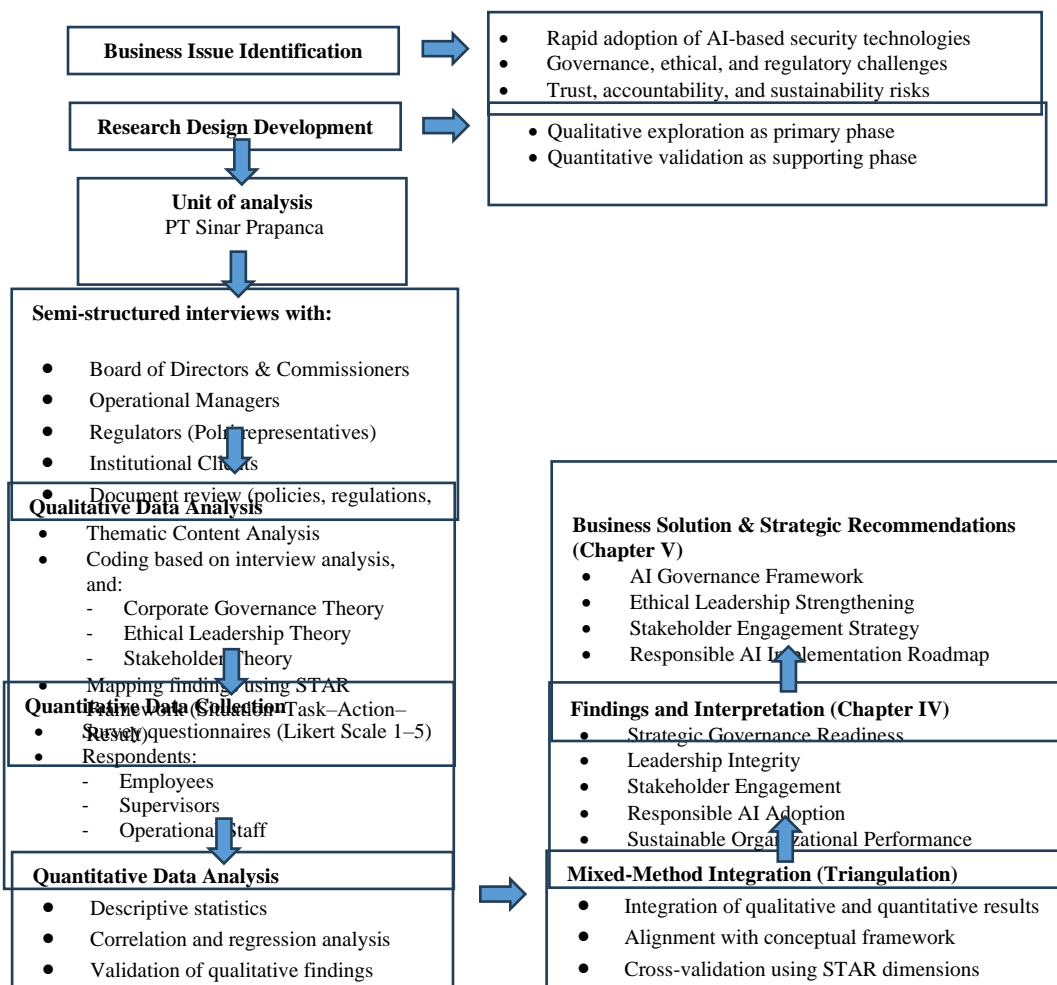


Figure 1. Research Methodology

### 2. Data Collection

Primary data were collected through a structured questionnaire distributed to employees of PT Sinar Prapanca. The survey instrument was designed to measure perceptions related to strategic governance, leadership integrity, stakeholder engagement, and responsible AI adoption using a Likert-scale format, in addition, limited qualitative information was obtained through informal discussions with selected managerial personnel. These qualitative inputs were not intended for separate analytical testing but were used to provide contextual clarification and support interpretation of the quantitative results

#### Primary Data

- Semi Structured Interviews, conducted with key stakeholders such as:
  - Board of Directors (strategic governance perspective).

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- Operational managers (implementation of AI-enabled security solutions).
  - Policymakers/regulators (e.g., Polri representatives).
  - Key institutional clients (e.g., banks, factories, and offices).
- Interview guidelines are structured using the **5-STAR framework**, ensuring that respondents provide insights on:
- **Situation** : Current conditions and challenges of AI adoption
  - **Task** : Roles, responsibilities, and expectations
  - **Action**: Policies, interventions, and leadership decisions
  - **Result**: Outcomes and impacts, intended or unintended
  - **Strategic Recommendation**: Suggested improvements for governance and leadership
- Surveys (Questionnaires)  
Distributed to employees (security personnel, supervisors, and team leaders) to capture their perceptions regarding:
    - Trust in AI-enabled surveillance systems.
    - Ethical concerns such as bias, privacy, and transparency.
    - Confidence in leadership to ensure responsible AI governance.
 A Likert scale (1–5) will be used to measure attitudes and perceptions in a structured manner

## RESULTS AND DISCUSSION

### 1. Demographic Background

The respondents in this study consist of employees of PT Sinar Prapanca who occupy various hierarchical positions within the organization. The involvement of multiple organizational levels is important because decision making related to the use of Artificial Intelligence (AI) technology does not occur solely at the top management level, but is also influenced by middle managers and operational.

### 2. Interview-Semi-Structure

Rather than merely reporting interview responses, this chapter emphasizes interpretive analysis, aiming to uncover the reasoning, concerns, and decision logic expressed by different stakeholders. To support a structured and coherent interpretation, the analysis is guided by the 5-STAR framework Situation, Task, Action, Result, and Strategic Recommendation which provides an analytical lens rather than a descriptive checklist. The retrieval of a valid or invalid item can be determined by correlating between the item score and the total score, if the correlation  $r$  is below 0.05, it can be concluded that the item is valid and vice versa, if it is above 0.05, the item of the instrument is invalid, so it must be corrected or discarded. In this study, in testing the validity of the researcher used a measuring tool in the form of a computer program, namely IBM SPSS version 25. Based on the table above, the value of  $t_{\text{calculated}}$  is 14.058 and  $t_{\text{table}}$  is 1.969 so that it can be concluded that  $t_{\text{calculated}} > t_{\text{table}}$  and obtained a significant value of  $0.000 < 0.05$ . Based on the hypothesis, it can be interpreted that  $H_3$  is accepted  $H_0$  is rejected. Thus, the stakeholder engagement variable partially has a positive and significant effect on responsible AI adoption.

### 3. With Control Variable (Model 2)

Table Multiple Linear Regression Model 2 with Control Variable

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.239	1.452		.853	.394
	Strategic Governance	.192	.036	.228	5.257	.000
	Leadership Integrity	.260	.047	.243	5.511	.000
	Stakeholder Engagement	.719	.050	.618	14.413	.000
	Age (29 Years Above)	-.032	.084	-.019	-.376	.707
	Education(Bachelor Degree)	-.285	.308	-.046	-.924	.356
	Position (Managerial)	-.022	.111	-.011	-.201	.841

a. Dependent Variable: Responsible AI Adoption

The equation for this model is as follows :

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$$Y = 1.239 + .192X_1 + -.260X_2 + -.719X_3 + -.032X_4 + +.285X_6 + .022X_7 + \varepsilon$$

Y = Dependent Variable (Employee)

X<sub>1</sub> = Strategic Governance

X<sub>2</sub> = Leadership Integrity

X<sub>3</sub> = Stakeholder Engagement

X<sub>4</sub>– X<sub>7</sub> = Control Variables (Age, Education, and Position)

## 4. Coefficient of Determination Model 2 (R<sup>2</sup>)

Table Coefficient of Determination Model 2

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732 <sup>a</sup>	.536	.526	2.13653
a. Predictors: (Constant) Strategic Governance, Stakeholder Engagement, Leadership Integrity, Age, Education, Position				
b. Dependent Variable: Responsible AI Adoption				

Based on the Model Summary of the multiple linear regression analysis in Model 2, the coefficient of determination (R Square) is 0.536. This indicates that 53.6% of the variation in Responsible AI Adoption can be explained by the variables included in the model, namely Strategic Governance, Leadership Integrity, Stakeholder Engagement, as well as the control variables Age, Education, and Position.

## 5. Correlation Test

The results of the correlation test in this study can be seen in the following table.

Table Correlation Test

Correlations					
		Strategic Governance	Leadership Integrity	Stakeholder Engagement	Responsible AI Adoption
Strategic Governance	Pearson Correlation	1	.118	-.042	.233**
	Sig. (2-tailed)		.052	.495	.000
	N	270	270	270	270
Leadership Integrity	Pearson Correlation	.118	1	.156*	.358**
	Sig. (2-tailed)	.052		.010	.000
	N	270	270	270	270
Stakeholder Engagement	Pearson Correlation	-.042	.156*	1	.632**
	Sig. (2-tailed)	.495	.010		.000
	N	270	270	270	270
Responsible AI Adoption	Pearson Correlation	.233**	.358**	.632**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	270	270	270	270
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Source : Data processed in 2025

The determination of the magnitude of the correlation value can be seen in the following correlation interval table.



Table Correlation Interval

Interval Koefisien	Tingkat Hubungan
0,00 – 0,199	Sangat rendah
0,20 – 0,399	Rendah
0,40 – 0,599	Cukup
0,60 – 0,799	Kuat
0,80 – 1,000	Sangat kuat

Based on the results of the correlation calculation with the SPSS program, it is shown that the N value is the number of samples as many as 270 respondents, while the correlation value can be seen in the *Pearson correlation value*. The correlation value between the strategic governance variable and responsible AI adoption is 0.233(\*\*). Looking at the correlation interval in the table above, the value is included in the category of low correlation. In addition, a sig value was also obtained. (2-tailed) between the two variables, which is 0.000. Thus, it can be interpreted that there is a significant positive correlation or relationship between the two variables ( $0.000 < 0.05$ )

## CONCLUSION AND RECOMMENDATIONS

### 1. Conclusion

This study aims to examine the factors influencing responsible Artificial Intelligence (AI) adoption within security service organizations, using PT Sinar Prapanca as the research context. By empirically testing the roles of strategic governance, leadership integrity, and stakeholder engagement, the study addresses the growing managerial challenge of adopting AI technologies responsibly in a sector characterized by high sensitivity to ethics, trust, and regulation. The findings confirm that strategic governance has a significant and positive effect on responsible AI adoption. This result demonstrates that AI implementation becomes more accountable and controlled when it is supported by clear governance structures, formal decision-making processes, and integrated oversight mechanisms. Governance, in this context, does not merely function as a compliance tool, but serves as a strategic instrument that aligns AI usage with organizational objectives and regulatory expectations.

### 2. Recommendations

Based on the empirical findings, several managerial recommendations are proposed to strengthen responsible AI adoption within security service organizations.

1. organizations should formally embed AI governance into existing corporate governance arrangements. AI-related decision making should be supported by clearly defined roles, accountability mechanisms, and internal guidelines that address risk, ethics, and compliance. Integrating AI oversight into established governance bodies such as risk or compliance committees ensures efficiency while avoiding unnecessary structural complexity.
2. leadership development initiatives should be recalibrated to explicitly address ethical responsibility in technology use. Given the dominant influence of leadership integrity, organizations are encouraged to incorporate ethical decision-making, digital accountability, and responsible AI principles into leadership training and performance evaluation systems. This approach ensures that leaders are prepared to guide AI adoption not only from a performance perspective, but also from a values based standpoint.
3. stakeholder engagement should be institutionalized as a core managerial practice rather than an ad hoc communication effort. Security service organizations should implement structured channels to explain AI usage, data safeguards, and accountability mechanisms to both internal and external stakeholders. Feedback mechanisms should be made accessible to allow concerns related to AI operations to be raised and addressed proactively.
4. AI initiatives should be implemented through a phased approach. Initial efforts should prioritize governance alignment and leadership readiness before expanding to broader operational and stakeholder-facing applications. Continuous monitoring and periodic evaluation are essential to ensure that AI practices remain consistent with organizational values and evolving regulatory requirements.

## REFERENCES

- Braun, V., & Clarke, V. (2006). *Using Thematic Analysis in Psychology*. *Qualitative Research in Psychology*, 3(2), 77–101.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Brown, M. E., & Treviño, L. K. (2006). Ethical Leadership: A Review and Future Directions. *The Leadership Quarterly*, 17(6), 595–616.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research*. Sage Publications.
- Campbell, J. (2017). *Leadership and Problem-Solving: Applying the STAR Framework*. Oxford University Press.
- Deloitte. (2025). *Strategic Governance of AI: A Roadmap for the Future*. Harvard Law School Forum on Corporate Governance.
- Deloitte. (2025). *AI Governance and Risk Management Frameworks*. Deloitte Insights.
- Epstein, M. J. (2008). Making sustainability work: *Best practices in managing and measuring corporate social, environmental, and economic impacts*. Berrett-Koehler.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Financial Times. (2024). *AI Governance and Corporate Responsibility: Case Studies*. Retrieved from <https://www.ft.com>
- Financial Times. (2024). *AI Risks in Surveillance and Corporate Governance*. FT Special Report.
- Floridi, L., Cowls, J., Beltrametti, M., et al. (2018). AI4People—An ethical framework for a good AI society. *Minds and Machines*, 28(4), 689–707.
- Forvis Mazars. (2024, November). *The Importance of AI Governance*. Retrieved from <https://www.forvismazars.us>
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Harvard Business Review. (2023). *The Board's Role in AI Oversight*. Harvard Business Publishing.
- Inside AI News. (2024, October 17). *The Essential Role of Governance in Mitigating AI Risk*. Retrieved from <https://insideainews.com>
- International Association of Privacy Professionals (IAPP). (2024). *AI Governance in Practice: Professional Report*. Retrieved from <https://iapp.org>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360.
- Jobin, A., Ienca, M., & Vayena, E. (2019). *The global landscape of AI ethics guidelines*. *Nature Machine Intelligence*, 1(9), 389–399.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Kong, E. (2019). Strategic Action and Results: Applying the STAR Framework in Organizational Studies. *Journal of Management Research*, 21(4), 233–249.
- Kominfo. (2024). *Indonesia Digital Roadmap 2024–2030*. Ministry of Communication and Information Technology.
- Northouse, P. G. (2021). *Leadership: Theory and Practice* (9th ed.). Thousand Oaks, CA: Sage Publications.
- OECD. (2023). *OECD Framework for the Classification of AI Systems*. OECD Publishing.
- OECD. (2019). *OECD Principles on Artificial Intelligence*. OECD Publishing.
- Palanski, M. E., & Yammarino, F. J. (2009). Integrity and leadership. *The Leadership Quarterly*, 20(3), 405–420.
- Pallant, J. (2020). *SPSS survival manual* (7th ed.). McGraw-Hill Education.
- PwC. (2024). *AI Governance for Risk Leaders*. PwC Global Insights.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). Wiley.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- The Australian. (2024). *AI Trust Gap Report*. Retrieved from <https://www.theaustralian.com.au>
- Weiss, J. W. (1998). *Business ethics: A stakeholder and issues management approach*. South-Western College Publishing.
- World Economic Forum. (2024). *Responsible AI: Global Principles and Best Practices*. WEF White Paper.
- World Economic Forum. (2024). *Responsible AI Guidelines for Industry Adoption*. WEF Centre for the Fourth Industrial Revolution.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage Publications.
- Zhang, H., et al. (2024). *The Role of Chief AI Officers in Strategic Governance*. arXiv preprint.