

Preliminary Study on ESG Awareness Among Companies in the TIC Sector

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Abstract

The increasing adoption of Environmental, Social, and Governance (ESG) principles has become a strategic priority for companies seeking to improve sustainability performance, competitiveness, and stakeholder trust. In the Testing, Inspection, and Certification (TIC) sector, ESG implementation is particularly important because clients increasingly demand sustainability-oriented services and compliance with international standards. This study aimed to assess the level of ESG awareness and organizational readiness of PT Sucofindo (Persero), a leading TIC company in Indonesia, and to formulate strategic recommendations for ESG implementation. A qualitative case study approach was employed, using primary data collected through in-depth interviews and focus group discussions, supported by secondary data from annual reports, sustainability reports, company documents, regulations, and relevant literature. The analysis incorporated several strategic management frameworks, including RBV–VRIO, PESTEL, McKinsey 7S, Stakeholder Analysis, SWOT, IFE, EFE, IE Matrix, SPACE Matrix, and BCG Matrix. The findings indicated that PT Sucofindo possessed strong internal resources, market leadership, and management commitment to support ESG implementation. However, significant gaps remained in ESG governance, human resource competencies, organizational culture, integrated management systems, and monitoring mechanisms. Strategic analyses consistently positioned the company in a growth-oriented and aggressive strategic position, indicating substantial opportunities to strengthen ESG capabilities while expanding sustainability-based services. The study proposed a four-stage ESG implementation roadmap consisting of Foundation and Awareness, Integration, Institutionalization, and Optimization. The proposed roadmap is expected to strengthen long-term competitiveness, enhance corporate sustainability performance, and support the achievement of the Sustainable Development Goals (SDGs), particularly SDGs 8, 9, and 16.

INTRODUCTION

The implementation of Environmental, Social, and Governance (ESG) principles at PT Sucofindo (Persero) is driven by demands from the government, regulators, and markets, requiring state-owned enterprises to focus not only on business performance but also on sustainability. As a Testing, Inspection, and Certification (TIC) company, Sucofindo plays a strategic role in supporting sustainable business practices through good governance, social

responsibility, and environmental protection. ESG implementation is essential for maintaining customer trust, enhancing competitiveness, and supporting the achievement of the Sustainable Development Goals (SDGs).

Globally, ESG has evolved into a key standard in the business and investment landscape. Increasing attention to climate change, social responsibility, and governance transparency has encouraged companies to integrate ESG into their business strategies. In Indonesia, ESG implementation has also been strengthened through various regulations, including the Financial Services Authority (OJK) policies on sustainable finance. This condition requires companies, including PT Sucofindo (Persero), to adapt their business strategies to remain competitive and meet the expectations of investors and stakeholders.

At the corporate level, ESG implementation continues to face several challenges. ESG has not yet been fully integrated into company strategies, business processes, management systems, and organizational culture. In addition, human resource competencies, monitoring mechanisms, and ESG governance structures require further strengthening to ensure that implementation is not merely administrative but becomes embedded in daily operational activities. Therefore, companies require a structured ESG roadmap as a guideline for long-term implementation.

The need for ESG implementation is also influenced by the characteristics of PT Sucofindo (Persero)'s customers, most of whom operate in the energy, mining, oil and gas, minerals, geothermal, and electricity sectors. Many of these companies have implemented ESG practices and are required to prepare sustainability reports. If Sucofindo is unable to meet these evolving standards, the company may face the risk of losing business partnerships and revenue opportunities because clients may shift to other TIC service providers with stronger ESG capabilities.

On the other hand, the TIC industry is becoming increasingly competitive with the presence of global companies such as SGS, TÜV Rheinland, Bureau Veritas, and Intertek, which have integrated ESG principles into their business strategies and service portfolios. PT Sucofindo (Persero) remains one of the leading national TIC companies; however, this position must be maintained through ESG-based business transformation to ensure continued competitiveness at both national and international levels.

Several studies have examined ESG implementation across various industries and contexts. Warouw et al. (2024) found that ESG adoption significantly influenced corporate reputation and stakeholder trust, while Li et al. (2024) concluded through a systematic literature review that ESG performance contributed to corporate success through improved risk management and operational efficiency. In the Indonesian context, Safitri and Arizah (2025) revealed that ESG disclosure practices among state-owned enterprises remained inconsistent and were often more ceremonial than substantive. Muthiah and Anggoro (2024) found that ESG had not been fully integrated into business activities, with persistent gaps in data management, key performance indicators (KPIs), reporting, and cross-unit coordination. Patmanegara and Nainggolan (2025) emphasized that gradual implementation roadmaps were essential for effective ESG integration in state-owned enterprises. Khamisu, Paluri, and Sonwaney (2024) identified critical success factors for ESG implementation from stakeholder perspectives, highlighting that organizational characteristics, governance quality, stakeholder involvement, human resource competence, and monitoring systems significantly influenced

ESG success. Jeong (2025) demonstrated that ESG practices positively affected operational efficiency and employee engagement in South Korean manufacturing companies. Specifically within the TIC sector, research remains limited. However, Putro (2025) demonstrated that successful ESG implementation in infrastructure companies required alignment among strategy, structure, systems, and organizational culture, while Drozd (2025) emphasized that transparency and accountability mechanisms were crucial for ensuring ESG credibility through sustainability reporting.

The main challenges faced by companies include the absence of an integrated ESG roadmap, limited human resource competencies in ESG-related areas, inadequate monitoring and evaluation systems, and uneven sustainability-oriented organizational cultures. Furthermore, emerging business opportunities, such as sustainability assurance services, carbon emission verification, and ESG consulting, have not been fully optimized due to limitations in organizational capabilities and expert resources.

These conditions create various strategic implications. From a business perspective, companies face potential risks of losing revenue and market opportunities due to increasing ESG requirements from regulators and customers. In terms of competitiveness, delays in ESG implementation may weaken a company's position compared with more advanced competitors. In the long term, dependence on the coal sector may also increase the risk of revenue decline as the transition toward renewable energy and a green economy accelerates.

Despite the growing body of ESG literature, several research gaps remain. These include limited attention to the unique dual role of the TIC sector as both an ESG implementer and an ESG enabler, insufficient integrated strategic analyses combining multiple frameworks (RBV–VRIO, McKinsey 7S, PESTEL, IFE–EFE, SWOT, IE Matrix, SPACE Matrix, and BCG Matrix), limited focus on pre-implementation ESG readiness assessment, inadequate exploration of TIC companies' transformation toward sustainability-based services, and the absence of detailed stage-based implementation roadmaps tailored to the Indonesian TIC context. To address these gaps, this research offers several novel contributions: it provides a comprehensive examination of ESG awareness and organizational readiness within an Indonesian state-owned TIC company, PT Sucofindo (Persero); applies an integrated multi-framework strategic analysis for holistic assessment; systematically identifies ESG governance and human resource competency gaps; develops a contextualized four-stage ESG implementation roadmap (Foundation and Awareness, Integration, Institutionalization, and Optimization); introduces the concept of ESG's dual role in the TIC sector as both an internal management system and an opportunity for external service development; and explicitly links ESG implementation with the achievement of SDGs 8, 9, and 16.

Based on these conditions, this Capstone Project aims to analyze PT Sucofindo (Persero)'s readiness to implement ESG, identify competency and governance gaps, and develop an integrated ESG implementation roadmap. The research findings are expected to provide strategic recommendations for strengthening governance, improving human resource competencies, developing sustainability-based services, and supporting the achievement of the Sustainable Development Goals (SDGs), particularly SDGs 8, 9, and 16.

METHODS

Research Approach

This research employed a qualitative case study approach at PT Sucofindo (Persero). The data consisted of primary and secondary sources. Primary data were collected through in-depth interviews and Focus Group Discussions (FGDs) with management and employees involved in ESG implementation. Secondary data were obtained from annual reports, sustainability reports, financial statements, internal company documents, government regulations, and relevant scientific literature. The analysis utilized several strategic management frameworks, including RBV–VRIO, PESTEL, McKinsey 7S, Stakeholder Analysis, SWOT, IFE, EFE, IE Matrix, SPACE Matrix, and BCG Matrix, to assess the company's condition, identify implementation gaps, and formulate ESG implementation strategies.

Research Design

The research uses a case study design on PT Sucofindo (Persero). The object of the research is the level of understanding and readiness of the company in implementing ESG which is reviewed from the aspects of resources, organization, and human resource competence. The subjects of the study include management and employees involved in ESG policy formulation and implementation. The research was carried out at PT Sucofindo (Persero) using company data for the 2020–2025 period.

Data Collection Techniques

Data were collected through in-depth interviews, observations, and documentation studies. Interviews were conducted purposively to the Board of Directors, Vice President, risk management, human resources, and employees related to ESG implementation. Observations are used to see the actual conditions of ESG implementation, while documentation studies are carried out on annual reports, sustainability reports, corporate policies, government regulations, and various scientific literature that supports the research.

Data Analysis Techniques

Data analysis was carried out in a qualitative descriptive manner with the support of quantitative analysis. The analysis stage begins with the identification of the company's internal and external conditions through interviews and document review. Furthermore, RBV–VRIO, PESTEL, McKinsey 7S, and Stakeholder Analysis analyses were carried out to identify resources, business environment, organizational readiness, and stakeholder needs. Internal and external factors are then analyzed using the IFE and EFE Matrix, which are further mapped into the IE Matrix, SWOT, SPACE Matrix, and BCG Matrix to determine the strategic position of the company. The results of all analyses are used as the basis for the preparation of the ESG implementation roadmap at PT Sucofindo (Persero).

Data Validity and Reliability

The validity of the data is guaranteed through the criteria of credibility, dependability, confirmability, and transferability. Credibility is carried out by triangulating sources and methods, dependability through documentation of the research process (audit trail) and discussion with supervisors (peer debriefing), confirmability through documentation of analysis results so that they can be traced back, while transferability is carried out by providing a clear description of the research context so that the research results can be a reference for other organizations that have similar characteristics.

Research Schedule

The implementation of the research is prepared in the form of a Gantt Chart which contains the stages of preparation, data collection, analysis, strategy formulation, preparation of ESG implementation roadmap, and completion of the Capstone Project report.

RESULTS AND DISCUSSION

SWOT Analyzer

Table 1. SWOT Analyzer

Strengths	
1	Strong Top Management Commitment Support from top management for ESG implementation has been internalized where ESG indicators are already carried out within <i>individual Key Performance Indicators</i> (KPIs). This shows that ESG is not only normative, but has entered into the mechanism of measuring organizational performance, as reflected in corporate governance practices in annual reports.
2	Availability of ESG Implementation Plan In accordance with the Company's Long-Term Plan (RJPP) from 2025 to 2029, the initial stage of ESG implementation development has been carried out in 2023 by identifying risks and opportunities, gap analysis with <i>ESG Roadmap</i> outputs.
3	Integration of ESG in the Company's strategy ESG has begun to be integrated into a company's strategic planning process, although it is not yet fully at the core of the business model. This is reflected in the existence of sustainability programs reported in the sustainability report from 2017 until now
4	Availability of Supporting Systems and Infrastructure The company already has a management and reporting system that supports the implementation of ESG, including systems that have been implemented at Sucofindo such as SMAP, ISO 9001, ISO 14001, ISO 45001, and SMK3, which ensures that operations run efficiently, safely, and in accordance with sustainability standards
5	PT Sucofindo (Persero) plays the role of an enabler PT Sucofindo acts as an ESG enabler by helping clients ensure equipment is certified, safe, and works more efficiently, so that energy use can be reduced and carbon emissions can be reduced. So certification is not only about meeting standards, but also supporting operational efficiency and sustainability targets.
Weakness	
1	ESG is internailated (written) in the Company's Vision and Mission The statement regarding commitment to ESG has not been explicitly stated in the formulation of the vision and mission of PT Sucofindo (Persero). This indicates that ESG is in the implementation stage and has not been fully integrated into the transformational stage
2	No Formal and Comprehensive ESG Policy The absence of a formal ESG policy has the potential to cause inconsistencies in implementation in various work units. In modern governance practices, formal policies are an important instrument to ensure standardization and accountability.
3	ESG HR Capabilities Are Still Low The level of ESG understanding among employees is still limited, with an estimated ESG training participation of less than 10% of the total $\pm 10,000$ employees. This shows that there is a significant gap between the strategy and readiness to implement ESG implementation in the review from the competency aspect of adequate HR factors
4	ESG-Based Organizational Culture Has Not Been Firmly Formed ESG has not been fully internalized as an organizational culture. This can be seen from the low awareness and uneven sustainability practices in daily operations.
Opportunities (Peluang)	
1	High Client Demands on ESG Clients, especially from the strategic and international industrial sectors, are increasingly making ESG an important factor in the selection of services. This is a demand for Sucofindo to implement ESG so that it is able to develop sustainability-based services.
2	Adoption of International Standards

	PT Sucofindo has referred to various international standards such as GRI, ISO, and SDGs principles , which are important capital in increasing global credibility.
3	Opportunities to Increase Global Competitiveness ESG implementation has the potential to increase the company's competitive position in the global market, especially in the Testing, Inspection, and Certification (TIC) industry. The development of services such as green services and sustainability assurance is a new business opportunity.
Threats (Ancaman)	
1	ESG Pressure from Clients The implementation of ESG by client companies will increase expectations for Sucofindo to meet the expected standards, thereby creating competition pressure
2	Uncertainty of National Regulations Regulations such as POJK No. 51/2017 and other sustainability policies are still in the process of development, creating uncertainty in the implementation of ESG in Indonesia.
3	High Global ESG Standards Increasingly stringent international standards are not comparable to internal readiness, especially in terms of human resources. This has the potential to create a gap between external demands and the company's internal capabilities.

Source: Primary data

From this SWOT analysis, it is further processed into several IE matrices, EFE so that it is expected to produce an overview of the company's position and understanding of the company's condition for formulation and produce recommendations that can be implemented.

SWOT Matrix

According to Fred R David, SWOT analysis (*Strengths, Weaknesses, Opportunities, and Threats*) is a matching tool used to develop organizational strategies based on a combination of internal and external factors. Internal factors consist of strengths and weaknesses, while external factors consist of opportunities and threats. Among these factors, four main alternative strategies are produced, namely SO, ST, WO, and WT strategies.

Quantitative SWOT analysis maps the organization's position into four quadrants based on a combination of internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats). Each quadrant reflects different strategic conditions and provides direction on the most appropriate strategy to implement. The explanation of each quadrant is as follows.

1. Quadrant I – Growth Strategy

Quadrant I describes the conditions when the organization has dominant internal strengths and great external opportunities. This position indicates that the organization is in a very advantageous situation because it is able to leverage the resources, competencies, and advantages it has to seize various opportunities in the business environment. The appropriate strategy is a progressive strategy or growth, namely by expanding business, innovating products and services, increasing organizational capacity, and developing strategic cooperation.

2. Quadrant II – Strategy Diversification

Quadrant II shows that the organization has high internal strength, but faces significant external threats. This condition indicates that even if the organization has adequate resources and capabilities, changes in the external environment such as fierce competition, changes in regulations, or economic conditions can hinder growth. The right strategy is strategy diversification, which is to leverage internal forces to develop new products, services, or markets so that the risks of external threats can be minimized.

3. Kuadran III – Ubah Strategi (Turn Around Strategy)

Quadrant III describes a situation when the organization faces various internal weaknesses, but still has considerable external opportunities. This condition shows that the organization has not been able to take advantage of opportunities optimally due to limited resources, systems, or internal competencies. The recommended strategy is a turn around strategy or change strategy, namely by making fundamental improvements to internal aspects such as organizational restructuring, improving human resource competencies, improving business processes, and strengthening governance.

4. Quadrant IV – Defensive Strategy

Quadrant IV shows the most challenging conditions, which are when the organization faces great internal weaknesses as well as high external threats. In this situation, the organization is at a disadvantage, so the main focus should be directed to maintaining business sustainability. Appropriate strategies are defensive or defensive strategies, such as cost efficiency, reduction of less productive activities, investment restrictions, and strengthening of internal controls. The main goal of this strategy is to reduce risk, maintain organizational stability, and create a stronger foundation before undertaking further development in the future.

The results of SWOT matrix data processing for PT. Sucofindo (Persero) is:

$$\begin{aligned}\text{X-Axis} &= \text{strength (S)} - \text{weakness (W)} \\ &= 2.25 - 0.73 \\ &= 1.52\end{aligned}$$

$$\begin{aligned}\text{Y-axis} &= \text{Opportunity (O)} - \text{Threat (T)} \\ &= 2.54 - 0.67 \\ &= 1.87\end{aligned}$$

$$\text{So (X,Y) = (1.52 : 1.87) (+, +)}$$

In figure 6.1.5, PT. Sucofindo is in Quadrant I (Progressive) so the recommended strategy is an aggressive strategy by utilizing internal strengths to seize large external opportunities in ESG implementation

SWOT QUADRANT ANALYSIS



Figure 1. SWOT Analysis

Source: Processed from quantitative SWOT analysis based on IFE and EFE results from interviews and FGDs

Based on the results, PT. Sucofindo (Persero) is in strategy I. The strategy suggested in quadrant I is an aggressive strategy (SO Strategy), which is to utilize all internal forces to seize external opportunities. Some strategic steps that can be taken include:

1. Strengthen the integration of ESG into all business processes and company services.
2. Develop sustainability-based services (green services) to meet client demands.
3. Continuously improving ESG competence and awareness across all organizational lines.

By implementing this strategy, PT. Sucofindo (Persero) can strengthen its competitive position, improve the reputation and trust of stakeholders, and create sustainable long-term value in the implementation of ESG.

SPACE Matrix Analysis

According to Thomas L. Wheelen and J. David Hunger, the SPACE Matrix is an effective instrument for integrating the evaluation of internal and external conditions into more targeted and objective strategy formulation. The SPACE Matrix (*Strategic Position and Action Evaluation*) analysis is used to determine PT Sucofindo (Persero)'s strategic position in the implementation of ESG and formulate the most appropriate strategy to support the company's sustainable growth. This analysis refers to the four main dimensions of the SPACE Matrix, namely *Financial Strength (FS)*, *Competitive Advantage (CA)*, *Industry Strength (IS)*, and *Environmental Stability (ES)*. In the context of this study, these dimensions are adjusted to the results of the IFE and EFE Matrix analysis, where internal strengths represent FS, internal weaknesses represent CA, external opportunities represent IS, and external threats represent ES.

Value weighting uses a scale of 1 (worst) to 6 (best). The values of the variables Competitive Advantage (CA) and Environmental Stability (ES) use a negative scale (-1 to -6), while Financial Strength (FS) and Industry Strength (IS) use a positive scale (+1 to +6).

Table 2. Internal SPACE Matrix Axis

Yes	Financial Strength (FS)	(+) Value	Environmental Stability (ES)	Value (-)
1	A short-term ESG roadmap is available as a step-by-step implementation guide	4	International clients' ESG requirements are getting tighter	2
2	Management support is very strong through policy and active involvement	4	Government policies have not been completely consistent	2.33
3	ESG has been incorporated into the company's KPIs every year	4	ESG regulations such as POJK No. 51/2017 increase the complexity of compliance	2
4	ESG integration is starting to be implemented in business processes and green services	3	Changes in national regulations may affect operational stability	3
5	The ESG reporting and monitoring system is up and running	3	Global investors are increasingly demanding ESG performance	2
	Average	3,6	Average	2,26

Source : data questioner

Table 3. External SPACE Matrix Axis

No	Industry Strength (IS)	(+) Value	Competitive Advantage (CA)	Value (-)
1	Clients are increasingly considering ESG in choosing ICT services	3.33	ESG is not yet fully integrated in the company's vision and mission	1,67
2	Transparency demands open up opportunities for ESG assurance services	4	There is no comprehensive ESG policy yet	1.00
3	ESG enhances client reputation and trust	3.33	ESG management systems are not yet fully integrated	2,67
4	Global trends ESG strengthen the growth of the ICT industry	3.67	The competence of ESG experts is still limited	1.67
5	Companies with strong ESG are more competitive in international markets	3.67	ESG-based organizational culture is not yet firmly established	2.33
Average		3,6	Average	1,87

Source : data questioner

SPACE Matrix Data Processing Results

Thomas L. Wheelen and J. David Hunger, the coordinates of the SPACE Matrix are calculated by:

$$X = IS - CA$$

$$Y = FS - ES$$

Based on the results of the calculation, the following values were obtained:

a. $FS - ES = 3.6 - 2.26 = 1.34$

b. $IS - CA = 3,6 - 1,87 = 1.73$

So the coordinates of the *SPACE Matrix* are:

c. $X = 1.34$

d. $Y = 1.73$

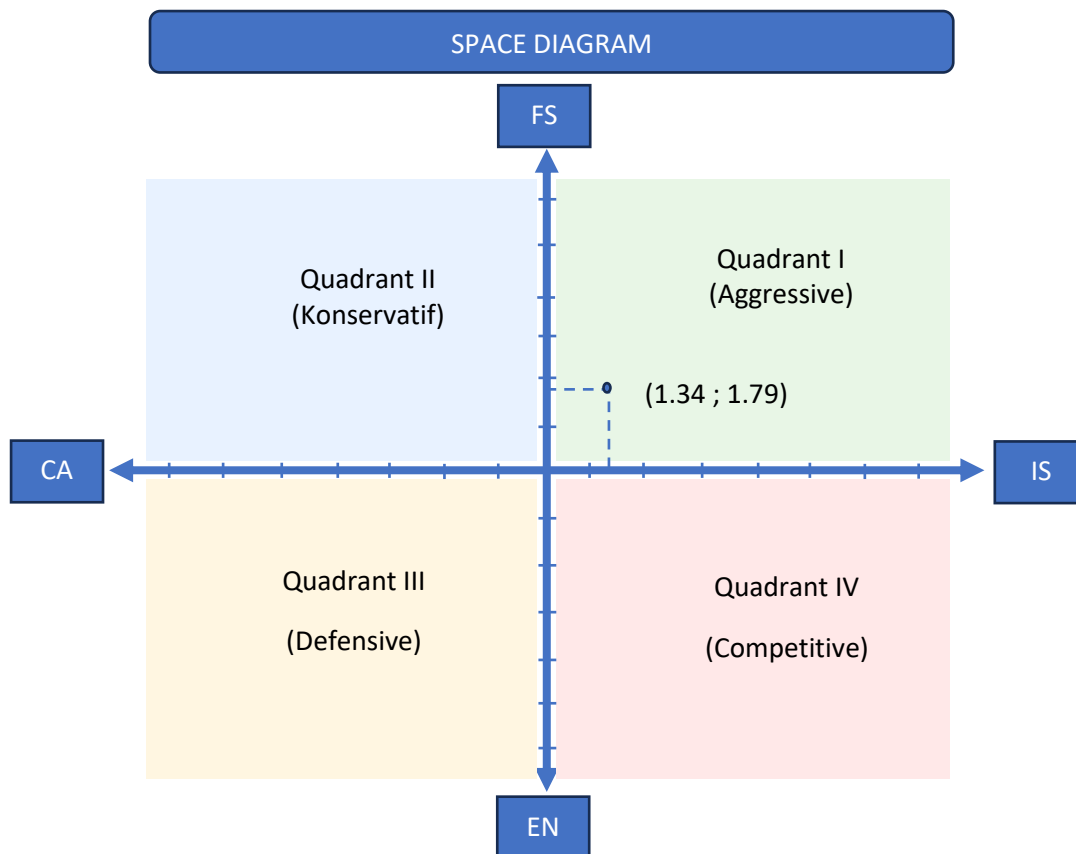


Figure 2. SPACE Diagram

Source: Processed from SPACE Matrix questionnaire assessments.

Based on the calculation results, PT Sucofindo (Persero) is in the Aggressive quadrant in the SPACE Matrix. This position indicates that the company has strong internal strengths, large external opportunities, relatively small weaknesses, and manageable environmental threats. This condition provides a very wide space for companies to expand, innovate, and develop ESG services more aggressively.

The aggressive position indicates that ESG implementation not only functions as a tool for regulatory compliance, but also as a source of competitive advantage that is able to increase reputation, expand the market, and strengthen PT Sucofindo (Persero)'s position as a sustainability-based Testing, Inspection, and Certification (TIC) service provider.

BCG Matrix

In this study, BCG's analysis uses secondary data sourced from PT Sucofindo (Persero)'s Annual Report for 2021–2024. The data includes the market size of Indonesia's ICT industry, PT Sucofindo (Persero)'s ICT service revenue, industry growth rate, and the company's market share. The use of the data was chosen because it is an official source of the company which refers to KPMG's estimates regarding the development of the Indonesian ICT industry so that it has a high level of credibility.

The BCG Matrix uses two main axes:

- Sumbu X = *Relative Market Share* (RMS)
- Sumbu Y = *Market Growth Rate* (MGR)
Market Grow Rate Industry TIC (sumbu Y)

Table 4. Market Grow Rate Industri TIC

Year	Market size of Indonesia's ICT Industry	YoY Growth	Average industry growth
2021	± IDR 6.65 trillion	-	$Y = (5.71 + 5.26 + 5.41) / 3$ $Y = 5.46\%$
2022	IDR 7.03 trillion	5,71%	
2023	± IDR7.40 trillion	5,26%	
2024	IDR 7.80 trillion	5,41%	

Source: Annual report 2022 and annual report 2024 PT. Sucofindo) (KPMG estimate)

Based on the BCG Matrix concept, RMS is calculated by comparing the company's revenue with the revenue of the largest competitors, The formula used is:

$$\text{RMS} = \frac{\text{Company Revenue}}{\text{Biggest Competitor Revenue}}$$

MGR (sumbu X)

Table 5. Relative Market Share

Company	Revenue 2024	RMS
PT Sucofindo (Persero)	3,703 T	1,77
PT Surveyor Indonesia Persero)	2,087 T	0,56
PT Carsurin Tbk	0.449 T	0,12

(Source: Annual report in 2024 PT. Sucofindo, PT Surveyor Indonesia and PT Carsurin)



Figure 3. BCG Matrix

Source: Processed from Annual Reports 2024 of PT Sucofindo, PT Surveyor Indonesia, and PT Carsurin Tbk, and KPMG estimates of Indonesian TIC market size

The results of the analysis show that PT Sucofindo (Persero) has an RMS of 1.77 and operates in an industry with an MGR of 5.46%. The combination of these two indicators puts PT Sucofindo (Persero) in the Star quadrant in the BCG Matrix.

Star's position illustrates that the company has a dominant market share as well as being in an industry that is still experiencing growth. This condition shows that PT Sucofindo (Persero) has a strong competitive advantage, both in terms of service capacity, operational network, technical competence, and reputation as the largest ICT company in Indonesia.

Although the company is in a favorable position, the characteristics of the Star quadrant also require the company to continue to invest in order to be able to maintain market leadership amid increasing industry competition. The investment can be directed towards the development of digital-based services, laboratory capacity building, ICT service innovation, strengthening human resource competencies, and integrating ESG principles into the company's business strategy. Thus, Star's position is not only able to be maintained, but can also be the foundation for PT Sucofindo (Persero) to develop into a Cash Cow when the pace of industry growth begins to slow down in the future.

Overall, the results of BCG Matrix's analysis show that PT Sucofindo (Persero) has a very strong competitive position in the Indonesian ICT industry. This position provides a great opportunity for companies to make ESG implementation one of the main strategies in maintaining competitive advantage, increasing company value, and supporting sustainable business growth.

The results of the study show that PT Sucofindo (Persero) already has an internal foundation and a strong enough competitive position to implement ESG. However, the implementation of ESG has not been fully integrated into strategies, organizational structures, human resource competencies, work culture, and performance measurement systems. This finding is reflected in the IFE value of 2.98 and EFE of 3.21, which places the company in Quadrant II of the IE Matrix or Grow and Build position. The quantitative SWOT results also place the company in Quadrant I with coordinates (1.52; 1.87), so the appropriate strategy is an aggressive strategy or Strength-Opportunity Strategy.

These results were strengthened by the SPACE Matrix which produced an X-axis value of 1.73 from the sum of Industry Strength and Competitive Advantage, and a Y axis value of 1.34 from the sum of Financial Strength and Environmental Stability. The SPACE Matrix Coordinates of (1.73; 1.34) place PT Sucofindo (Persero) in the Aggressive Quadrant. This position shows that the company has relatively strong financial strength and industry traction to overcome environmental pressures as well as competitive weaknesses. Therefore, the company has the capacity to execute market penetration strategies, market development, service development, technology investment, integration, and related diversification in ESG implementation.

In addition, the results of BCG Matrix show that PT Sucofindo (Persero) is in a Star position, with a Relative Market Share of 1.77 and an average growth rate of 5.46% in the ICT industry. This position shows that the company has a relatively high market share in the growing industry, thus requiring continuous investment to maintain market leadership.

Overall, the results of the IE, SWOT, SPACE, and BCG Matrices show a consistent direction of the strategy. The Grow and Build position in the IE Matrix shows the need for investment and development; Quadrant I SWOT directs companies on leveraging strengths to seize opportunities; The SPACE Matrix Aggressive Quadrant supports market penetration, service development, and related diversification; while Star's position in BCG Matrix shows the company's strong position in the ICT industry which is still growing. Thus, PT Sucofindo (Persero) has a strong strategic basis to accelerate ESG implementation through strengthening governance, improving human resource competencies, integrating KPIs and monitoring systems, digitizing ESG data, and developing services such as sustainability assurance, carbon emission verification, ESG data validation, and sustainability-based inspections.

Comparison with previous theories and research

The results of the research support the RBV theory which explains that a company's competitive advantage comes from internal resources and capabilities that are valuable, scarce, difficult to replicate, and supported by the organization. PT Sucofindo (Persero) has valuable resources, such as an extensive operational network, laboratory facilities, technical competence, reputation, experience in the ICT industry, and relationships with strategic customers. However, the results of the VRIO show that most of these resources still generate competitive parity due to the scarcity, difficulty of replication, and organizational readiness that have not been fully met.

These findings are in line with Hendi, Arifin, and Zesica (2024), who stated that innovation, quality of human resources, and mastery of information need to be optimized so that company resources can produce sustainable competitive advantages. In the context of PT Sucofindo (Persero), strengthening ESG competencies, developing experts, establishing an ESG Center of Excellence, and integrating ESG data is needed so that the resources that have been owned are not only valuable, but also have characteristics that are rare and difficult to imitate.

The results of the McKinsey 7S analysis show that leadership strategy and support are relatively strong, but there are still gaps in structure, systems, shared values, staff, and skills. These findings support the research of Sari, Widjajanti, and Wardoyo (2025), who stated that successful organizational transformation requires alignment between strategies, structures, systems, shared values, human resources, skills, and leadership styles. This result is also in accordance with Yudhi Putro (2025), who emphasized that ESG readiness is not enough only supported by policies, but requires the alignment of all organizational elements.

The uneven understanding and culture of ESG at PT Sucofindo (Persero) also strengthens the findings of Chareanporn and Yoopetch (2025), which show that shared values, systems, structures, staff, and skills affect organizational performance. In this study, leadership support has been available, but has not fully translated into shared values and consistent ESG behaviors across work units. Thus, leadership commitment needs to be followed by a structured communication system, training, KPIs, and evaluation mechanisms.

The findings of this study also support Khamisu, Paluri, and Sonwaney (2024), who stated that ESG implementation is influenced by the characteristics and capabilities of the company, the quality of governance, stakeholder involvement, human resource competence, and the monitoring and evaluation system. PT Sucofindo (Persero)'s strengths in network, reputation, management system, and technical competence show the existence of organizational characteristics that support ESG. However, the lack of a strong ESG structure, equitable ESG competencies, and an integrated monitoring system shows that some of these success factors still need to be strengthened.

The results of the research are also in line with Muthiah and Anggoro (2024), Patmanegara and Nainggolan (2025), and Secioputri and Putro (2025). The three studies found that ESG in a number of companies has not been fully integrated into business activities, there are still gaps in data, KPIs, reporting, and cross-unit coordination, and a gradual implementation roadmap is needed. These similarities show that PT Sucofindo's challenges are not solely related to commitment, but mainly in the process of translating ESG commitments into structures, systems, competencies, and operational practices.

Research by Ruswana, Ma'arif, and Kirbrandoko (2020) on PT Aneka Tambang Tbk., which shows that an aggressive position in SPACE Matrix directs the company to an intensive and integrative growth and development strategy. The strategy includes market penetration, market development, product development, integration, and related diversification. These findings also support the research of Pasah and Murhadi (2025), which places PT Mayora in the Aggressive Quadrant and recommends market expansion, product development, and technology investments to strengthen the company's position.

In the context of PT Sucofindo (Persero), the aggressive strategy can be translated in two directions. First, internal strategies in the form of strengthening ESG policies and governance, developing human resource competencies, establishing an ESG Center of Excellence, KPI integration, and building an ESG dashboard. Second, external strategies in the form of market penetration, development of sustainability assurance services, carbon emission verification, ESG data validation, sustainability-based inspections, and ESG-related management system certification.

Although SPACE Matrix shows an aggressive position, the results do not mean that PT Sucofindo (Persero) already has a high level of ESG maturity. The SPACE Matrix shows that companies have the capacity and strategic position to grow, while RBV–VRIO and McKinsey 7S show that internal ESG capabilities still need to be strengthened. Thus, an aggressive strategy needs to be implemented gradually and capability-based so that service expansion does not exceed the readiness of competencies, structures, systems, and corporate governance

The position of Grow and Build in the IE Matrix and Quadrant I in SWOT supports Melina's (2025) research, which shows that companies with internal strength and high market opportunities need to implement product development, market development, and innovation strategies. In the context of PT Sucofindo, (Persero), this strategy can be carried out through the development of sustainability assurance services, carbon emission verification, ESG data validation, sustainability-based inspections, and ESG-related management system certification.

Star's position in BCG Matrix reinforces the conclusion that PT Sucofindo (Persero) has room to invest and grow. However, this position does not mean that the company has matured in ESG implementation. The BCG Matrix illustrates the strength of the market position, while the RBV–VRIO and McKinsey 7S show that internal ESG capabilities still need strengthening. As such, a strong market position needs to be used as a resource to finance ESG transformation.

Academic Implications

This research makes an academic contribution by integrating RBV–VRIO, McKinsey 7S, PESTEL, IFE–EFE, SWOT, IE Matrix, BCG Matrix, in analyzing the readiness of ESG implementation in companies in the ICT sector. This approach expands the ESG study which generally discusses manufacturing, energy, banking, and public companies.

1. This study strengthens RBV by showing that the availability of valuable resources is not enough to create an ESG competitive advantage. Resources must be developed to be scarce, difficult to replicate, and supported by organizational structures and systems.
2. This study expands the use of McKinsey 7S as an ESG readiness assessment instrument. The findings show that ESG readiness is the result of alignment between the hard elements of strategy, structure, and systems with the soft elements of shared values, style, staff, and skills.

3. This research links a company's competitive position with organizational readiness. The BCG Matrix shows a company's ability to invest, while the RBV–VRIO and McKinsey 7S explain the capabilities that need to be built for the investment to generate sustainable advantage.
4. This research offers the concept of ESG's dual role in the ICT sector, namely ESG as an internal management system as well as an opportunity for external service development. These findings can be the basis for future research to develop an "ESG capability–service innovation–competitive advantage" model in ICT companies.
5. This research expands the use of SPACE Matrix in the context of ESG implementation in ICT companies, the financial strength and industrial attractiveness of the company is able to offset environmental pressures and competitive weaknesses. Academically, these findings show that the SPACE Matrix can not only be used to determine the direction of business growth, but can also be used to assess a company's capacity to execute ESG transformation through market penetration strategies, service development, technology investment, integration, and related diversification.
6. A gradual roadmap consisting of Foundation and Awareness, Integration, Institutionalization, and Optimization can be the initial conceptual model for further research. The model still needs to be tested quantitatively and comparatively on other ICT companies to assess the relationship between ESG maturity, organizational capabilities, service innovation, and company performance.

Implementation of SDGs

Based on the results of the research and discussions that have been conducted, it can be concluded that the ESG implementation recommendations at PT Sucofindo (Persero) have a strong relationship with the achievement of the Sustainable Development Goals (SDGs). Each stage in the ESG implementation roadmap is not only to improve the company's sustainability performance, but also to contribute to sustainable development goals that are relevant to the business characteristics of PT Sucofindo (Persero)

1. SDG 8 – Decent Work and Economic Growth

This research is directed to support the improvement of PT Sucofindo (Persero) competitiveness through the development of an integrated ESG implementation strategy, strengthening human resource competencies, and developing new sustainability-based services. The proposed ESG implementation roadmap not only focuses on fulfilling environmental, social, and governance aspects, but also serves as the foundation for the company's business transformation in the face of changing market needs and stakeholder demands. The implementation of the roadmap is expected to improve employee competencies through structured ESG capacity building programs, encourage increased organizational productivity, and expand the company's service portfolio through the development of services such as sustainability assurance, carbon verification, and sustainability-based inspection services. Thus, the implementation of ESG not only improves the quality of organizational performance and human resource capabilities, but also creates new business opportunities that contribute to the company's sustainable economic growth and strengthen PT Sucofindo (Persero)'s competitive position in the ICT industry.

2. SDG 9 – Industry, Innovation and Infrastructure

This research contributes directly to the achievement of Sustainable Development Goal (SDG) 9: Industry, Innovation and Infrastructure, through strengthening innovation, organizational infrastructure development, and business transformation of PT Sucofindo (Persero) as an ICT company. The roadmap encourages the development of ESG-based services, digitizes ESG performance monitoring and reporting systems, and strengthens organizational capabilities in supporting integrated sustainability implementation. The results show that the increasing market demand for sustainability services, such as sustainability assurance, carbon verification, and sustainability-based inspection services, is a strategic opportunity that needs to be exploited to create new sources of business growth. Therefore, ESG implementation is not only an instrument to meet regulatory demands and stakeholder needs, but also a catalyst for service innovation, ICT business development, acceleration of corporate transformation, and increasing PT Sucofindo's competitiveness in the face of increasingly sustainability-oriented industry dynamics.

3. SDG 16 - Peace, Justice and Strong

The implementation of ESG in this study contributes to the achievement of Sustainable Development Goal (SDG) 16: Peace, Justice and Strong Institutions, especially through strengthening the aspect of Governance as one of the main pillars of ESG. The results of the study show that one of the strategic needs of PT Sucofindo (Persero) is the establishment of integrated ESG governance to ensure that the implementation of sustainability runs effectively, measurably, and sustainably. Therefore, the roadmap prepared includes the establishment of an ESG governance structure, the preparation of policies and implementation guidelines, the development of an ESG performance monitoring and evaluation system, the determination of key performance indicators, the strengthening of internal audit mechanisms, and the preparation of a Sustainability Report that is in line with the principles of Good Corporate Governance (GCG). The implementation of these various initiatives is expected to increase transparency, accountability, integrity, and effectiveness of decision-making in the organization. Thus, the implementation of

Overall, the results of the analysis show that PT Sucofindo (Persero) has adequate initial readiness in ESG implementation, but still needs to strengthen aspects of governance, human resource competence, organizational culture, and management systems so that ESG implementation can run in an integrated and sustainable manner.

CONCLUSION

This research shows that PT Sucofindo (Persero) possesses the resources, reputation, and competitive position required to implement Environmental, Social, and Governance (ESG) principles; however, gaps remain in governance, human resource competencies, organizational culture, business process integration, and data management systems. The results of the RBV–VRIO, McKinsey 7S, IFE–EFE, SWOT, IE Matrix, SPACE Matrix, and BCG Matrix analyses consistently position the company in a Grow and Build position with an aggressive strategy focused on strengthening ESG capabilities as a foundation for sustainable business development. Based on these findings, an ESG implementation roadmap was developed, consisting of four stages: Foundation and Awareness, Integration, Institutionalization, and Optimization. These stages include strengthening ESG governance, improving human resource

competencies, integrating ESG into standard operating procedures (SOPs) and key performance indicators (KPIs), implementing digital monitoring systems, conducting internal audits, and developing ESG-based services as a source of competitive advantage. The implementation of this roadmap is expected to support the company's transformation while contributing to the achievement of the Sustainable Development Goals (SDGs), particularly SDGs 8, 9, and 16. This research has limitations because it employed a qualitative approach and examined ESG implementation in the TIC sector, where adoption remains relatively developing. Further research is recommended to develop ESG implementation maturity assessment models (ESG Maturity Level) and more comprehensive frameworks for ESG competencies and training.

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