

The Pivotal Role of Values-Based Strategy in Powering Indonesia's Renewable Energy Transition: Exploring Interconnections with Performance

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Abstract. This study explores renewable energy sustainability within Indonesian electric power companies, examining the shift toward renewable sources. Applying a strategic management lens, the research investigates relationships between strategic organizational change management, clean corporate governance, transformational leadership and business performance, mediated by the state-owned enterprise's AKHLAK ethical values (Adaptive, Collaborative, Competent, Harmonious, Loyal, Trustworthy). The conceptual model is tested quantitatively using structural equation modeling of survey data from PT PLN Nusantara Power. While direct performance effects proved non-significant, AKHLAK values significantly mediated these connections. Findings emphasize AKHLAK's pivotal role in enabling strategic management to positively influence renewable energy outcomes. This offers timely insights for Indonesian firms on leveraging ethics and strategy in their sustainability transition.

Keywords: Sustainability, Strategic Management, Renewable Energy mix, Core Values AKHLAK

1. Introduction

The worldwide energy landscape has shifted significantly in recent decades toward the use of renewable energy sources (Frimpong et al., 2023; Gielen et al., 2019; Purwanto et al., 2021; Yolcan, 2023), driven by the convergence of environmental, economic, and social demands ((Ahmad et al., 2022; Kostakis & Arauzo-Carod, 2023; Raihan et al., 2023). The transition is especially promising in Indonesia, due to the country's considerable renewable energy potential, which stems from its available natural resources and diverse geographical landscape (Arafah et al., 2018; Jaelani et al., 2017; Purwanto et al., 2021; Raihan et al., 2023). Within this context, Indonesia's electric power sector has begun to undergo significant development on integrating renewable energy sources into its energy mix (Reyseliani & Purwanto, 2021; Siregar & Möller, 2023; Wirawan & Gultom, 2021).

The Indonesian government has demonstrated its commitment to sustainability and renewable energy by ratifying the Electricity Supply Business Plan for 2025 to 2050, as regulated in the ESDM ministerial decree: 0074K/21/MEM/2015. In the 2017-2026 PLN RUPTL (Maulidia et al., 2019). This commitment has been further exemplified by the Indonesian government's support for the integration of renewable energy sources into the nation's power generation infrastructure (Paundra & Nurdin, 2022; Sambodo et al., 2022). The primary goal of this government policy is to increase the adoption of renewable energy while reducing dependence on conventional fuels (Ordenez et al., 2022; Susilawati et al., 2013).

Overseeing the electricity sector in Indonesia falls under the Ministry of Energy and Mineral Resources and the Ministry of State-Owned Enterprises, both in collaboration with PT Perusahaan Listrik Negara (State electric power company). PT Perusahaan Listrik Negara (PT PLN) was established as an institution given by the state the duty to provide and distribute electrical energy categorized into three important sectors, namely the generation, transmission and distribution sectors. As a strategic move to strengthen the generation sector, PT PLN has established a specialized sub holding company called PT PLN Nusantara Power. This company has power plants with a total installed capacity of over 20,000 MW.

However, based on Indonesian Electricity Supply Business Plan (RUPTL) 2017-2026, there are 109 project programs with 35,000 MW in Indonesia. PT PLN has been given the responsibility to develop an energy mix as part of the Indonesian government's efforts to face energy and environmental challenges. For this program, PT PLN is entrusted to represent 10,000 MW in the project and the remaining 25,000 MW is handled by private independent power producers (IPP). New IPPs with new technologies that produce higher levels of efficiency such as Steam Power Plant technology with Ultra Super Critical Boiler Technology (PLTU USCB). USCB PLTU uses coal fuel with very economical production costs (Annual Report of PT PLN Nusantara Power, 2020).

The entry of IPP power plants into the system has an impact on the company's market share and revenue and causes the decrease in PT PLN Nusantara Power market share (Annual Report PT PLN Nusantara Power, 2020). The decrease in PT PLN Nusantara Power's market share is in line with the increasing market share of IPP that have begun to dominate the electrical energy market. To remain competitive, PT PLN Nusantara Power must demonstrate agility and adaptation in the energy landscape, particularly with the introduction of renewable energy programs. PT PLN Nusantara Power also must quickly realign their strategy to match the evolving internal and external dynamics of the company as the energy sector changes toward a more sustainable.

To tackle this issue, the role of company strategy is critical, serving as a guiding blueprint that directs the organization's path. At the same time, the clean governance offers a framework for allocating responsibilities and resources, which will ultimately improve organizational performance (Januarita et al., 2020). In the current landscape, businesses need the capability to compete through the adoption of proficient technology and expertise. This requires a workforce rich in skills and talents. Therefore, improving company performance requires improving employee performance, recognizing that the

progress of a company depends largely on the collective role of its human resources. These elements are an integral part of strategic organization change management, showing how these elements collectively contribute to the effective functioning and growth of an organization (Mariam & Ramli, 2020). In addition, given that PT PLN Nusantara Power embraces the Core Values *AKHLAK*, which encompass *Amanah* (Trustworthy), *Kompeten* (Competent), *Harmonis* (Harmonious), *Loyal* (Loyal), *Adaptif* (Adaptive), and *Kolaboratif* (Collaborative), these principles become the ethical foundation in the course of its progress and transformation.

Understanding the role of strategic management in this context is crucial as a guide compass, guiding companies through the complex landscape of renewable energy adoption. Therefore, this study aims to analyze the effect of strategic management, which is based on strategic organizational change management; clean corporate governance, and transformational leadership on business performance, mediated by core values *AKHLAK* to solve the problems with the specific cases that faced by PT PLN Nusantara Power in adapting the renewable energy mix.

2. Literature Review

2.1 Strategic Organization Change Management (SOCM)

Change management is one of the most important methods for dealing with today's rapid changes and also refers to all activities related to the interaction of technology, processes and people (Harrison et al., 2021; Năstase et al., 2012). Within the realm of change management, the strategic change management comes through the project team and training users, understanding new processes, communication, and job redesign as some of the important activities (Abernethy et al., 2021; Maktabi et al., 2013; Sahlman & Haapasalo, 2012). There are five dimensions in strategic change management, namely (1) the traits of change leader; (2) the culture of change; (3) Policies and strategies for change; (4) the context of change; and (5) technology and the content of change (Tidd, 2011).

The effective change management entails several crucial components: (1) initiating strategic change management, involving unanimous commitment towards shared objectives, facilitated by transparent communication of the collective vision throughout the organization; (2) highlighting the significance of active and open two-way communication, utilizing varied mediums such as videos, presentations, and face-to-face sessions to foster engagement and project commitment; (3) advocating early involvement of stakeholders despite potential time implications, leading to a sense of ownership, resistance mitigation, and enhanced project design; (4) fostering an open climate that encourages the expression of concerns and leverages internal knowledge to enhance commitment to shared organizational goals; (5) emphasizing the importance of setting explicit targets within major change programs, which provides feedback, milestones, and objectives for effective performance evaluation and continuous improvement; and (6) recognizing the value of investing in training, moving beyond viewing it as an expense, to ensure proper functioning, enhanced productivity, and technology utilization.

2.2 Clean Corporate Governance (CCG)

Corporate governance is an important aspect of strategic management, which holds control over macroeconomic stability and microeconomic risks for companies like those in the power sector, including the electricity industry. The use of Good Corporate Governance concepts has been proved to improve the performance of government and commercial businesses in Indonesia (Januarita et al., 2020). The Governance of Commercial Banks (2017) framework outlines several key principles: (1) Transparency involves divulging pertinent information to aid decision-making and openly sharing material information about the company. (2) Accountability encompasses the effective functioning of the company's structure and systems, ensuring responsible management. (3) Responsibility pertains to managing the company in alignment with sound corporate principles and relevant laws. (4) Independence underscores professional management devoid of conflicts of interest or inappropriate

external influence, adhering to legal regulations and corporate principles. Examples include accurate and timely submission of reports and prioritizing company interests over personal ones. (5) Fairness emphasizes equitable treatment, upholding stakeholder rights as per agreements and laws (Širá et al., 2020).

2.3 Transformational Leadership (TL)

According to (Robbins & Judge, 2013) transformational leadership comprises of four components: (a) idealized influence, which indicates that a transformation leader must be charismatic and able to persuade subordinates to follow the leader. Transformational leadership can be defined as a motivating, adaptable, and flexible approach that inspires followers to go above and beyond their initial expectations. It has five developed dimensions, which are as follows: (1) idealized attributes are instilling nationality, building respect and trust; (2) idealized behaviors are providing a strategic vision and a sense of mission; (3) inspiration is communication with high expectations, using symbols to focus performance and effort, and expressing the importance of goals in an easy way; (4) intellectual motivation is to increase intelligence, rationality, and careful problem solving; and (5) individual motivation is to increase intelligence, rationality, and careful problem solving.

2.4 Business Performance (BP)

Business performance represents the company's performance and the company's position against competitors in relation to key competition in important areas such as gaining a position in the industry, increasing company awareness and reaction to pressures and competition or challenges created by competitors (Ahmed et al., 2020; Anser et al., 2021; Sharma, 2016). Business performance describes how companies obtain different strategies in terms of trade, distribution network and suppliers, customer service, marketing, finance and promotion strategies. Business performance targets are achieved based on agreement on targeted performance, allocation and prioritization of resources, informing managers to maintain applicable policies or plans to achieve goals or targets that have been set strategically.

2.5 Core Values AKHLAK (AKH)

State-owned enterprises in Indonesia have embraced a profound commitment to *AKHLAK* as their fundamental Core Values (Pratomo et al., 2021). *AKHLAK* is an acronym for *Amanah*, *Kompeten*, *Harmonis*, *Loyal*, *Adaptif*, and *Kolaboratif* (Trustworthy, Competent, Harmonious, Loyal, Adaptive, and Collaborative) as the moral foundation for movement and transformation. *Amanah* (Trustworthy) is closely related to responsibility, a person accepts responsibility because they are trusted by the giver of the responsibility. *Competence* encompasses an individual's capacity and attributes, encompassing knowledge, skills, and behavioral attitudes essential for fulfilling their role within the work environment. The assessment of competence levels is crucial for gauging anticipated performance benchmarks, whether falling within the satisfactory or superior range. *Harmonis* signifies organizational harmony and synergy, *Loyal* denotes devotion to group interests, and *Adaptif* denotes adaptability in reaction to change. *Kolaboratif* emphasizes the power of collaborative efforts by bringing together varied abilities for innovation. This moral framework guides ethical behavior, promoting organizational greatness in the face of dynamic difficulties.

3. Hypothesis

3.1 Strategic organizational change management

Strategic organizational change management has a relationship with business performance by describing expectations and reinforcing the character of the company by becoming the best and biggest company in the industry in Indonesia and internationally (Paracha et al., 2012). By implementing strategic change management, the competency towards improving business performance can be further enhanced, enabling companies to stay ahead in the highly competitive business environment (Mariam

& Ramli, 2020).

H1: Strategic organizational change management has a significant positive effect on business performance.

3.2 Clean corporate governance

Clean and effective governance significantly impacts business performance, suggesting a unidirectional relationship; improvements in clean governance are aligned with improvements in corporate performance (Sihombing & Akbar, 2022). Government ownership has a positive influence, which means that by increasing government ownership, the company's productivity will increase. Continuous business strategy has a positive impact on company performance every year. There is also interference from the government which makes the best strategy so that it can improve the performance of state-owned companies.

H2: Clean corporate governance has a significant positive effect on business performance.

3.3 Strategic transformational leadership

Transformational leadership has a significant positive effect on business performance by encouraging innovation, improving morale, and creating an adaptive and growth-oriented organizational culture (Jensen et al., 2020; Shahzad et al., 2022). The relationship between leadership styles and innovativeness, as well as their impact on business performance, highlights a significant change inside businesses (Yıldız et al., 2014).

H3: Strategic transformational leadership has a significant positive effect on business performance.

3.4 AKHLAK's Core Values

AKHLAK's Core Values have a positive impact on these transformational stages, requiring the ability to control the process of transformational change. Since small changes are the result of a rational analysis and planning process, small changes only require managerial competence for the implementation process. However, for transformational change, with the characteristics of change, leadership competence and at the same time managerial competence are needed in the change process (Pratomo et al., 2021).

H4: Strategic organizational change management has a significant positive effect on Core Values.

3.5 Clean governance influences AKHLAK's core values

Clean governance functions as a condition that ensures the presence of a process marked by alignment, equality, and equilibrium of responsibilities and shared oversight conducted by entities like the government, citizens, and business entrepreneurs. This condition holds a positive impact on the AKHLAK's Core Values, wherein these entities share a reciprocal relationship system and maintain equality. If these likenesses lack parity, it is inevitable that the corporate governance concept will be subject to bias. If these similarities are not comparable, it is certain that there will be a bias from the concept of corporate governance (Ignatius, 2014)

H5: Clean corporate governance has a significant positive effect on AKHLAK's Core Values.

3.6 Strategic transformational leadership influences AKHLAK's Core Values

Strategic transformational leadership influences AKHLAK's Core Values when a leader who knows

employees well will create a sense of comfort for employees when working, this transformational leader is a leader who knows all of his employees, not just employees who are representatives of each division. When leaders are able to become transformational leaders, employees will have more trust and employees will be motivated to work even better and this will lead to what is called good employee performance (Gong et al., 2021).

H6: Strategic transformational leadership has a significant positive effect on *AKHLAK*'s Core Values.

3.7 *AKHLAK*'s Core Values affect business performance

The Core Values of *AKHLAK* set the groundwork for an effective organizational ecosystem. These principles not only determine ethical behavior, but they also have a positive impact on business performance. Trustworthiness builds stakeholder trust, competence promotes innovation, harmonic collaboration improves teamwork, loyalty drives commitment, flexibility assures resilience, and collaboration fosters a culture of joint achievement. Organizations that match their activities and decisions with these principles create an atmosphere that attracts and keeps talent, fosters customer loyalty, and adapts effectively to dynamic challenges. As a result, the major positive impact of *AKHLAK*'s Core Values on Business Performance can be seen as increased efficiency, stakeholder satisfaction, and overall competitiveness (Cosenz & Noto, 2016).

H7: *AKHLAK*'s Core Values have a significant positive effect on business performance.

3.8 Strategic Organizational Change Management, Business Performance, *AKHLAK*

The role of *AKHLAK*'s Core Values as mediation, implies that the development of a strong organizational network provides a key mechanism that underlies the chances of achieving business performance through increasing strategic organizational change management strong enough to make the company more energetic and independent from the hierarchical structure. The principles in *AKHLAK*'s Core Values take advantage of opportunities explicitly through strategic organizational change management and play a significant role in providing this strategy with the main target of achieving business performance (Mitchell et al., 2016)

H8: Strategic Organizational Change Management has a significant positive effect on Business Performance through Core Values *AKHLAK*.

3.9 Clean Corporate Governance, Business Performance, *AKHLAK*

The implementation of corporate governance within a company can affect the value of the company (Core Values), because the better corporate governance will make the company more efficient and the company is considered to have prospects in the future. The implementation of corporate governance gives confidence to investors that the company uses its funds to achieve the company's goal of maximizing the welfare of shareholders. That way, investors will be interested in buying company shares where the higher the demand for shares will increase the share price so that the value of the company will also increase. In addition, the corporate governance has a positive effect on the company's Core Values (Putra et al., 2022).

H9: Clean Corporate Governance has a significant positive effect on Business Performance through *AKHLAK*.

3.10 Strategic transformational leadership, business performance, *AKHLAK*

Strategic transformational leadership significantly boosts business performance, especially when guided by *AKHLAK*'s Core Values. This leadership style inspires innovation and empowers teams,

while *AKHLAK*'s principles of Trustworthy, Competent, Harmonious, Loyal, Adaptive, and Collaborative behaviours provide an ethical framework. This synergy cultivates a culture of trust, competence, collaboration, and adaptability among employees, driving improved business performance (Dvorsky et al., 2020).

H10: Strategic transformational leadership has a significant positive effect on business performance through *AKHLAK*'s Core Values.

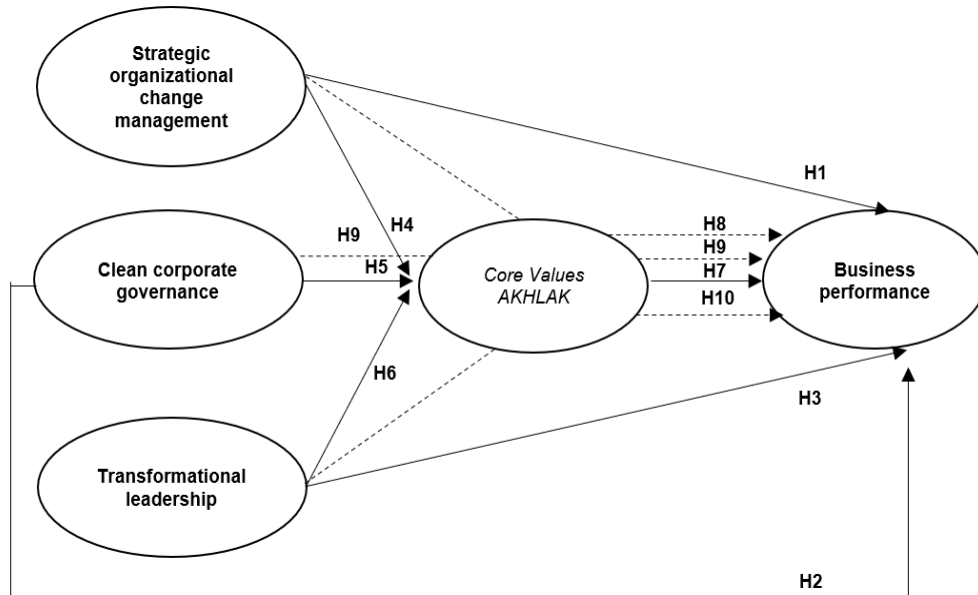


Fig.2: The Research Framework

Source: Prepared by the authors

Taking into account the aforementioned factors, a conceptual framework was constructed to examine the influence of strategic organizational change management, clean corporate governance, and transformational leadership on strategic business performance. This framework integrates *AKHLAK* Core Values as a mediating variable, as depicted in Figure 2.

4. Methods

This study used non-experimental quantitative approach and data collection primarily by surveys. The survey was sent through the company's email and internal communication media and requested to voluntarily fill out the questionnaire. This research was conducted from January 2022 to April 2023 at PLN Nusantara Power (Nusantara Power State Electricity Company) as a power generation company owned by a State-Owned Enterprise. The populations in this study are the PLN Nusantara Power Generating Unit consisted of 46 populations including 45 Generating Units and 1 Head Office. The sampling is conducted with non-probability sampling method using purposive sampling, where the sampling is based on criteria or considerations in Table 1.

Table 1. The Criteria in selecting the sample

No	Sample Criteria
1	Fossil fuel power plants
2	Existing generating units and operation and maintenance (O&M) services
3	Power plants with installed power above 100 MW
4	1 Head Office

Source: Prepared by the authors

Table 1 highlighted the four different criteria which were used for sample selection. The

determination of these criteria was based on considerations involving the number of employees and management structure. In particular, fossil fuel power plants have a larger number of employees and more complex management compared to non-fossil power plants, due to the complexity of the plants. Therefore, they were identified as suitable sample for this survey. In addition, the criteria included power plants fully owned by PT PLN, with a focus on existing operational units with maintenance services. The distinctions of plants were made based on plant capacity, with a particular emphasis on larger plants starting from 100 MW, which naturally results in a larger manpower and comprehensive management structure (Marsudi, 2006). Besides, the sample also includes the head office, which serves as the administrative centre for the entities being considered. After selecting the sample based on the criteria in Table 1, the sample for the research is 15 Generating Units and 1 Head Office.

Sampling of respondents is indicated to employees with a level of position that can represent the interests of members of the organization. From the sample, the respondents selected are members of the company at various levels of positions so that they can represent and provide an overview of the needs to answer the research objectives and respondents from the upper management level who are prospective company leaders to improve leadership capabilities in improving company performance.

Table 2. Demographic Characteristics of Respondents

The respondent Characteristics		Respondents	Percentage
Gender	Male	174	77,9%
	Female	24	12,1%
	Total	198	100%
Position	President Director	1	0,5 %
	Board of Directors	3	1,5%
	Executive Vice President	4	2%
	General Manager	5	2,5%
	Manager	41	20,7%
	Supervisor	123	62,1%
	Team Leader	21	10,6%
	Total	198	100%
Length of Employment	0 to 5 Years	13	6,6 %
	5 to 10 Years	62	31,3 %
	10 to 15 Years	78	39,4 %
	> 15 Years	45	22,7 %
	Total	198	100%
Latest Education	Diploma	42	21,2 %
	Bachelor	116	58,6 %
	Master	40	20,2 %
	Doctorate	0	0%
	Total	198	100%

Source: Prepared by the authors.

Table 2 summarizes the characteristics of the 198 respondents, categorizing them based on several aspects. In terms of gender, there are more male respondents than female. Then, the positions of respondents ranged from President Director and Board of Directors to Team Leaders and Managers. When it comes to length of employment, the participants are divided into four categories: 0-5, 5-10, 10-15, and >15 years. Regarding education, the respondents had Diploma, Bachelor, Master, and no one had a Doctorate degree.

The respondents' perceptions were measured using a Likert scale, which allows for quantitative analysis. Each indicator or item in this survey utilizes a Likert scale format with gradations ranging from very positive to very negative. For the purpose of quantitative analysis, participants' responses

were scored on a five-point Likert scale, where: 1 indicates "strongly disagree" or "never" or "not well", 2 indicates "disagree" or "rarely" or "poorly", 3 indicates "neutral" or "sometimes" or "fairly well", 4 indicates "agree" or "often" or "well", and 5 indicates "strongly agree" or "always" or "very well". This structured scoring system helps in systematically evaluating and interpreting the collected data.

After the data is obtained through the distribution of valid and reliable questionnaires, data processing analysis are carried out with SEM (Structural Equation Model) using LISREL 8.8 software with confirmatory factor analysis (CFA) method. In a comprehensive SEM framework, the λ parameter (indicator coefficient/factor loading) is rigorously examined across exogenous and endogenous models to assess the potential of each latent variable, measuring its indicator strength. This evaluation relies on t-values, which exceed a threshold of 1.96. Ensuring construct validity is an important aspect of asserting the credibility of the measurement model. It covers various aspects, including convergent validity, discriminative validity, face validity, and nomological validity. The determination of convergent validity refers to the reliability of the construct and the estimated variance extracted. Discriminant validity, on the other hand, gains support when the average variance extracted for a construct is greater than the shared variance among constructs.

Construct Reliability.

Construct reliability is derived from squaring the sum of standard loading values, divided by the sum of standard loading values squared plus the sum of error values. This complete formula is provided in equation (1)

$$\text{Construct Reliability} = \frac{(\sum \text{Std.Loading})^2}{(\sum \text{Std.Loading})^2 + \sum e_j} \quad (1)$$

Variance Extracted

The variance extracted value is calculated by dividing the total squared standard loading value by the total squared standard loading value plus the entire error value. The entire formula is shown in equation (2).

$$\text{Variance Extracted} = \frac{\sum \text{Std.Loading}^2}{\sum \text{Std.Loading}^2 + \sum e_j} \quad (2)$$

Construct Reliability and Variance Extracted are important metrics in research that are used to evaluate the quality and validity of measurement inside latent variables. Construct Reliability measures a construct's internal consistency by taking into account the standardized loading values and error values associated with its indicators. Variance Extracted, on the other hand, measures the amount to which a construct's indicators explain the observed variance in the construct.

5. RESULTS AND DISCUSSION

5.1 Result

In this research, the analysis of each indicator involves a descriptive examination of the respondents pertaining to the research variables. The variables in this study consist of Strategic Organizational Change Management, Clean Corporate Governance, Transformational leadership, Core Values AKHLAK and Business Performance.

Table 3. The Research Findings Summary and Validation

Variable	CR	AVE	Information
Strategic Organization Change Management (SOCM)	0.97	0.74	Reliable
Change Corporate Governance (CCG)	0.98	0.81	Reliable
Transformational Leadership (TL)	0.98	0.77	Reliable

Core Values <i>AKHLAK</i> (AKH)	0.96	0.66	Reliable
Business Performance (BP)	0.95	0.66	Reliable

Source: Prepared by the authors; Output SEM with LISREL 8.8 (2023).

Based on the research findings in Table 3, it is obtained that the CR value of all variables is greater than 0.7, it indicated that the variable is formed by reliable indicators. In addition, the AVE value for all variables is greater than 0.5, it can be concluded that all indicators are valid in forming these variables. The substantial CR and AVE values confirm the foundation of this study, strengthening confidence in the accuracy and credibility of the results.

5.1.1 Evaluating Model Fit using Goodness of Fit Analysis

In this study, Structural Equation Modelling (SEM) was used to test the comprehensive validity of the proposed model, mainly through evaluating the overall model fit. In the context of SEM, the term "model fit" is concerned with the alignment between the covariance matrix derived from the sample and the covariance matrix estimated for the entire population. In more understandable terms, it signifies whether the variation observed in the sample accurately reflects or mirrors the diversity inherent in the wider population.

Table 4. Goodness of Fit Calculation with LISREL 8.8

Criteria		Category	Result
Absolute Fit Measure	Chi Square	$\geq 0,05$	0,359
	Goodness Of Fit Index (GFI)	$\geq 0,90$	0,940
	Root Mean Square Error of Approximation (RMSEA)	$< 0,08$	0,000
Incremental Fit Measure	Adjusted Goodness of Fit (AGFI)	$> 0,90$	0,940
	Normed Fit Index (NFI)	$> 0,90$	0,990
	Comparative Fit Index (CFI)	$> 0,90$	1,000
	Incremental Fit Index (IFI)	$> 0,90$	1,050
	Relative Fit Index (RFI)	$\geq 0,95$	0,990

Source: Prepared by the authors; Output SEM with LISREL 8.8 (2023).

Based on the data in Table 4, it can be seen that there are indicators that meet the criteria, almost meet and meet the criteria for perfect Goodness of Fit. It indicates that the proposed model fits the observed data. The results for criteria such as GFI, NFI, CFI, IFI, and RFI, in particular, exceed the predefined thresholds, indicating a strong model fit. Therefore, it can be concluded that the model is included in the Fit Model based on the Goodness of Fit test results.

5.1.2 Hypothesis Testing of Direct Effect

The hypotheses concerning the direct impacts of variables on one another are investigated in order to reveal the deep relationships within the suggested model. The analysis is shown in Table 5.

Table 5. The Analysis of Variable Direct Relationships

Effect of Variables	Score		
	Coefficient	T-Statistic	Information
SOC to BP	0,18	1,63	Not significant
CCG to BP	0,03	0,27	Not significant
TL to BP	0,18	1,68	Not significant
SOC to AKH	0,27	3,17	Significant
CCG to AKH	0,41	4,75	Significant
TL to AKH	0,27	3,07	Significant
AKH to BP	0,38	2,65	Significant

Source: Prepared by the authors; Output SEM with LISREL 8.8 (2023).

Table 5 presented the complete summary of the direct relationships between variables in the

proposed model. The findings show that the direct effects of Strategic Organizational Change Management (SOC), Change Corporate Governance (CCG), and Transformational Leadership (TL) on Business Performance (BP) are not statistically significant. In contrast, the connections between SOC, CCG, and TL and Core Values *AKHLAK* (AKH), as well as AKH and BP, are statistically significant.

Table 6. Variable Direct Relationship on Core Values and Business Performance

Effect of Variables	Score		
	Coefficient	T-Statistic	Information
SOC > AKH > BP	0,10	2,15	Significant
CCG > AKH > BP	0,16	2,44	Significant
TL > AKH > BP	0,10	2,10	Significant

Source: Prepared by the authors; Output SEM with LISREL 8.8 (2023).

Table 6 shows the variables influenced Core Values (*AKHLAK*) and Business Performance (BP). It can be seen that Strategic Organization Change Management (SOC), Clean Corporate Governance (CCG), and Transformational Leadership (TL) all have a major impact on Core Values (*AKHLAK*). This influence subsequently spreads to Business Performance (BP), demonstrating a similar significant relationship. The role of *AKHLAK*'s core values as mediation, implies that the development of a strong organizational network provides a key mechanism that underlies the chances of achieving business performance through increasing strategic organizational change management strong enough to make companies more energetic and independent from hierarchical structures. The principles in *AKHLAK*'s core values take advantage of opportunities explicitly through strategic organizational change management and play a significant role in providing this strategy with the main target of achieving business performance

Table 7. Assessing Structural Model Coefficients

	Path	Coefficient	T-Statistic	Conclusion
1	Strategic Organizational Change Management → Business Performance	0,18	3,17	Influencing and Not Significant
2	Clean Corporate Governance → Business Performance	0,03	0,27	Influencing and Not Significant
3	Transformational Leadership → Business Performance	0,18	1,68	Influencing and Not Significant
4	Strategic Organizational Change Management → Core Values <i>AKHLAK</i>	0,27	3,17	Influencing and Significant
5	Clean Corporate Governance → Core Values <i>AKHLAK</i>	0,41	4,75	Influencing and Significant
6	Transformational Leadership → Core Values <i>AKHLAK</i>	0,27	3,07	Influencing and Significant
7	Core Values <i>AKHLAK</i> → Business Performance	0,38	2,65	Influencing and Significant
8	Strategic Organizational Change Management → Core Values <i>AKHLAK</i> → Business Performance	0,10	2,15	Influencing and Significant
9	Clean Corporate Governance → Core Values <i>AKHLAK</i> → Business Performance	0,16	2,44	Influencing and Significant
10	Transformational Leadership → Core Values <i>AKHLAK</i> → Business Performance	0,10	2,10	Influencing and Significant

Source: Prepared by the authors; Output SEM with LISREL 8.8 (2023).

Table 7 provides a detailed analysis of the structural model's coefficients. Each numbered pathway represents a variable connection, with coefficients indicating the strength and direction of the association and T-Statistic values showing statistical significance. According to the findings, while certain variables, such as Strategic Organizational Change Management, Clean Corporate Governance, and Transformational Leadership, have an impact on Business Performance (BP), the effects are not statistically significant (Paths 1-3). Relationships between these variables and Core Values *AKHLAK* (AKH), on the other hand, show both influential and statistically significant impacts (Paths 4-6).

Conversely, correlations between these variables and Core Values *AKHLAK* (AKH) show both influential and statistically significant impacts (Paths 4-6). Furthermore, Core Values *AKHLAK* (AKH) have a statistically significant positive influence on Business Performance (BP) (Path 7). While the combined effects of these variables on both Core Values *AKHLAK* (AKH) and Business Performance (BP) are also significant (Paths 8-10).

5.2 Discussion

After delving into the complex relationships between strategic organizational change management, clean corporate governance, transformational leadership, *AKHLAK*'s Core Values, and business performance. The finding as reported in Table 7, revealed the extent to which these hypothesized correlations are validated by empirical evidence.

The first hypothesis (H1) proposed that strategic organizational change management has significant effects on business performance (Mariam & Ramli, 2020; Paracha et al., 2012). Although the positive coefficient (0.18) implies a possible positive connection, the t-statistic (3.17), indicates that this impact is not statistically significant. Although the findings suggest that strategic organizational change management has a positive effect on corporate performance, the relationship may require further investigation to determine its robustness and significance. The second hypothesis (H2) stated that good corporate governance has a major impact on business performance (Sihombing & Akbar, 2022). Despite the positive coefficient (0.03) showing a potential positive relationship, the low t-statistic (0.27) indicates that this connection is not statistically significant. This shows that the impact of good corporate governance on business performance may be modest or dependent on other factors not considered in this study. According to the third hypothesis (H3), strategic transformational leadership has a major impact on business performance (Yildiz et al., 2014). The positive coefficient (0.18) indicates a trend in the right direction, but the t-statistic (1.68) indicates a lack of statistical significance. This means that, while transformational leadership may have a positive impact on business performance, the association may not be strong enough to be declared statistically significant in this study.

Moving on to the subsequent hypotheses (H4 to H10), the study investigated the interconnection of *AKHLAK*'s Core Values, clean corporate governance, strategic transformational leadership, and their aggregate influence on both business performance and each other (Cosenz & Noto, 2016; Dvorsky et al., 2020; Gong et al., 2021; Pratomo et al., 2021; Putra et al., 2022). The findings revealed the important mediating function of *AKHLAK*'s Core Values in shaping these interactions. This lends support to the notion that an ethics-driven company culture, embracing trustworthiness, competence, harmony, loyalty, adaptability, and collaboration, greatly adds to business performance.

These findings highlight the relevance of strategic organizational change management, clean corporate governance, and strategic transformational leadership in impacting company performance. Furthermore, the important position of *AKHLAK*'s Core Values as a mediator highlights the dynamic interplay between diverse elements and their aggregate impact on corporate performance. However, the nuanced significance levels indicate the complexities inherent in these connections, highlighting the need for additional research to understand the contextual elements that may influence the conclusions. This study aimed to contribute significant knowledge for efficiently managing the various issues posed by renewable energy adaption in the modern corporate environment by detailed analysis and assessment of the relationships between these variables.

6. Conclusion

The analysis of direct and mediated variable effects within the conceptual model yields several key conclusions. First, strategic organizational change management, clean corporate governance, and transformational leadership did not significantly directly impact business performance. However, their positive and significant relationships with AKHLAK ethical values highlight an alternative pathway of influence. Given AKHLAK's strong positive link to

performance, embedding these principles amplifies strategic management's benefits. Findings emphasize interdependencies between ethics, leadership, governance and strategic adaptation in achieving renewable energy milestones. For Indonesia's electricity companies, this underscores the importance of aligning sustainability initiatives with the core values of Trustworthiness, Competence, Harmony, Loyalty, Adaptability and Collaboration. These provide an ethical compass during times of transition. Future research should build on these insights using mixed methods to uncover subtler connections at play. With thoughtful strategy guided by moral wisdom, a prosperous renewable future is within reach.

References

- Abernethy, M. A., Dekker, H. C., & Grafton, J. (2021). The influence of performance measurement on the processual dynamics of strategic change. *Management Science*, 67(1), 640–659. <https://doi.org/10.1287/mnsc.2019.3442>
- Ahmad, F., Draz, M. U., Chandio, A. A., Ahmad, M., Su, L., Shahzad, F., & Jia, M. (2022). Natural resources and environmental quality: Exploring the regional variations among Chinese provinces with a novel approach. *Resources Policy*, 77. <https://doi.org/10.1016/j.resourpol.2022.102745>
- Ahmed, S. S., Guozhu, J., Mubarik, S., Khan, M., & Khan, E. (2020). Intellectual capital and business performance: the role of dimensions of absorptive capacity. *Journal of Intellectual Capital*, 21(1), 23–39. <https://doi.org/10.1108/JIC-11-2018-0199>
- Anser, M. K., Yousaf, Z., Usman, M., Yousaf, S., Fatima, N., Hussain, H., & Waheed, J. (2021). Strategic business performance through network capability and structural flexibility. *Management Decision*, 59(2), 426–445. <https://doi.org/10.1108/MD-06-2019-0741>
- Arafah, W., Nugroho, L., Takaya, R., & Soekapdjo, S. (2018). International Journal of Energy Economics and Policy Marketing Strategy for Renewable Energy development In Indonesia Context Today. *International Journal of Energy Economics and Policy* |, 8(5), 181–186. <http://www.econjournals.com>
- Cosenz, F., & Noto, G. (2016). Applying System Dynamics Modelling to Strategic Management: A Literature Review. *Systems Research and Behavioral Science*, 33(6), 703–741. <https://doi.org/10.1002/sres.2386>
- Dvorsky, J., Petrakova, Z., Khan, K. A., Formanek, I., & Mikolas, Z. (2020). Selected aspects of strategic management in the service sector. *Journal of Tourism and Services*, 11(20), 109–123. <https://doi.org/10.29036/jots.v11i20.146>
- Frimpong, S. O., Agbehadji, I. E., Abayomi, A., Millham, R. C., Freeman, E., & Ujakpa, M. M. (2023). Economic and reliability determination of sustainable renewable energy mix based on social spider prey optimization algorithm. *Soft Computing*, 27(15), 10687–10718. <https://doi.org/10.1007/s00500-023-08231-8>
- Gielen, D., Boshell, F., Saygin, D., Bazilian, M. D., Wagner, N., & Gorini, R. (2019). The role of renewable energy in the global energy transformation. *Energy Strategy Reviews*, 24, 38–50. <https://doi.org/10.1016/j.esr.2019.01.006>

- Gong, H., Wang, B., Liang, H., Luo, Z., & Cao, Y. (2021). Strategic analysis of China's geothermal energy industry. *Frontiers of Engineering Management*, 8(3), 390–401. <https://doi.org/10.1007/s42524-020-0106-4>
- Harrison, R., Fischer, S., Walpole, R. L., Chauhan, A., Babalola, T., Mears, S., & Le-Dao, H. (2021). Where do models for change management, improvement and implementation meet? A systematic review of the applications of change management models in healthcare. In *Journal of Healthcare Leadership* (Vol. 13, pp. 85–108). Dove Medical Press Ltd. <https://doi.org/10.2147/JHL.S289176>
- Ignatius, E. R. (2014). Pengelolaan Manajemen Modern Dalam Mewujudkan Good Corporate Governance: Optimalisasi Pencapaian Tujuan Perusahaan. *Binus Business Review*, 5(1), 315–322.
- Jaelani, A., Firdaus, S., & Jumena, J. (2017). International Journal of Energy Economics and Policy Renewable Energy Policy in Indonesia: The Qur'anic Scientific Signals in Islamic Economics Perspective. *International Journal of Energy Economics and Policy*, 7(4), 193–204. <http://www.econjournals.com>
- Januarita, R., Siska, F., & Aqimuddin, E. A. (2020). Investment Scheme in Kertajati Aerocity Development in Majalengka District, West Java Province Which Is Oriented to The Principles Of Good Corporate Governance. *International Journal of Research*, 7(10), 191–204. <https://doi.org/10.29121/granthaalayah.v7.i10.2019.387>
- Jensen, M., Potočník, K., & Chaudhry, S. (2020). A mixed-methods study of CEO transformational leadership and firm performance. *European Management Journal*, 38(6), 836–845. <https://doi.org/10.1016/j.emj.2020.05.004>
- Kostakis, I., & Arauzo-Carod, J. M. (2023). The key roles of renewable energy and economic growth in disaggregated environmental degradation: Evidence from highly developed, heterogeneous and cross-correlated countries. *Renewable Energy*, 206, 1315–1325. <https://doi.org/10.1016/j.renene.2023.02.106>
- Maktabi, S. H., Hanifi, F., & Feizabadi, M. (2013). A study on relationship between creativity and idealistic realistic attitude: A case study of high school teachers. *Management Science Letters*, 3(7), 1989–1992. <https://doi.org/10.5267/j.msl.2013.06.026>
- Mariam, S., & Ramli, A. H. (2020). Prosiding Seminar Stiami Peran Mediasi Strategic Change Management pada Usaha Mikro Kecil dan Menengah dalam Kondisi Pandemi Covid-19. *Prosiding Seminar Stiami*, 7(2), 46–52.
- Marsudi, D. (2006). *Operasi Sistem Tenaga Listrik*. Edisi Pertama. Yogyakarta: Penerbit Graha Ilmu.
- Maulidia, M., Dargusch, P., Ashworth, P., & Ardiansyah, F. (2019). Rethinking renewable energy targets and electricity sector reform in Indonesia: A private sector perspective. In *Renewable and Sustainable Energy Reviews* (Vol. 101, pp. 231–247). Elsevier Ltd. <https://doi.org/10.1016/j.rser.2018.11.005>
- Năstase, M., Giuclea, M., & Bold, O. (2012). The Impact of Change Management in Organizations-a Survey of Methods and Techniques for a Successful Change. In *Review of International Comparative Management* (Vol. 13, Issue 1).
- Ordóñez, J. A., Fritz, M., & Eckstein, J. (2022). Coal vs. renewables: Least-cost optimization of the Indonesian power sector. *Energy for Sustainable Development*, 68, 350–363. <https://doi.org/10.1016/j.esd.2022.04.017>
- Paracha, M. U., Qamar, A., Mirza, A., Waqas, I.-U.-H., & Ali, M. (2012). “Impact of Leadership Style (Transformational & Transactional Leadership) On Employee Performance & Mediating Role of Job Satisfaction” Study of Private School (Educator) In Pakistan. In *Type: Double Blind Peer Reviewed*

International Research Journal Publisher: Global Journals Inc. (USA) Global Journal of Management and Business Research (Vol. 12).

Paundra, F., & Nurdin, A. (2022). Study of The Potential and Development of Renewable Energy Power in Indonesia: A Review. *Technology, Education And Mechanical Engineering*, 10(2), 62–72.

Pratomo, T., Yulianto, E., & Zein, Z. (2021). Core values measurement: Case Study of State-Owned Enterprises in Indonesia. *International Journal of Research in Business and Social Science (2147-4478)*, 10(3), 456–461. <https://doi.org/10.20525/ijrbs.v10i3.1145>

Purwanto, S. K., Sinaga, O., & Sidik, M. H. J. (2021). Ensuring renewable energy consumption through innovation, r&d and energy import in indonesia: A time series analysis. *International Journal of Energy Economics and Policy*, 11(1), 577–583. <https://doi.org/10.32479/ijeep.10715>

Putra, I. G. C., Manuari, I. A. R., & Puspayanti, N. K. D. (2022). Pengaruh Corporate Governance Terhadap Profitabilitas dan Nilai Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI). *Wacana Ekonomi (Jurnal Ekonomi, Bisnis Dan Akuntansi)*, 21(1), 105–118. <https://doi.org/10.22225/we.21.1.2022.105-118>

Raihan, A., Pavel, M. I., Muhtasim, D. A., Farhana, S., Faruk, O., & Paul, A. (2023). The role of renewable energy use, technological innovation, and forest cover toward green development: Evidence from Indonesia. *Innovation and Green Development*, 2(1), 100035. <https://doi.org/10.1016/j.igd.2023.100035>

Reyseliani, N., & Purwanto, W. W. (2021). Pathway towards 100% renewable energy in Indonesia power system by 2050. *Renewable Energy*, 176, 305–321. <https://doi.org/10.1016/j.renene.2021.05.118>

Robbins, S. P., & Judge, T. A. (2013). *Organizational Behavior* (15th Edition). Pearson Education.

Sahlman, K., & Haapasalo, H. (2012). Structures of Strategic Management of Technology in a Conceptual Framework of Enterprise Practice. In *International Journal of Synergy and Research* (Vol. 1, Issue 1).

Sambodo, M. T., Yuliana, C. I., Hidayat, S., Novandra, R., Handoyo, F. W., Farandy, A. R., Inayah, I., & Yuniarti, P. I. (2022). Breaking barriers to low-carbon development in Indonesia: deployment of renewable energy. *Heliyon*, 8(4). <https://doi.org/10.1016/j.heliyon.2022.e09304>

Shahzad, M. A., Iqbal, T., Jan, N., & Zahid, M. (2022). The Role of Transformational Leadership on Firm Performance: Mediating Effect of Corporate Sustainability and Moderating Effect of Knowledge-Sharing. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.883224>

Sharma, A. (2016). Organizational Citizenship Behaviour: A Literature Review of The Dimensions and Antecedents. *International Journal of Education & Management*, 6(3), 351–356.

Sihombing, E., & Akbar, S. (2022). Pengaruh Kepemilikan Pemerintah, Strategi Bisnis dan Good Corporate Governance terhadap Kinerja Perusahaan. *Jambura Economic Education Journal*, 4(1).

Širá, E., Vavrek, R., Vozárová, I. K., & Kotulič, R. (2020). Knowledge economy indicators and their impact on the sustainable competitiveness of the EU countries. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/su12104172>

Siregar, Y. I., & Möller, B. (2023). Sector coupling of electricity, transport and cooling with high share integration of renewables in Indonesia. *Smart Energy*, 10. <https://doi.org/10.1016/j.segy.2023.100102>

Susilawati, R., Papendick, S. L., Gilcrease, P. C., Esterle, J. S., Golding, S. D., & Mares, T. E. (2013). Preliminary investigation of biogenic gas production in Indonesian low rank coals and implications for

a renewable energy source. *Journal of Asian Earth Sciences*, 77, 234–242. <https://doi.org/10.1016/j.jseaes.2013.08.024>

Tidd, J. (2011). *Managing Innovation: Integrating Technological, Market and Organizational Change*. <https://www.researchgate.net/publication/228315617>

Wirawan, H., & Gultom, Y. M. L. (2021). The effects of renewable energy-based village grid electrification on poverty reduction in remote areas: The case of Indonesia. *Energy for*

Sustainable Development, 62, 186–194. <https://doi.org/10.1016/j.esd.2021.04.006>

Yıldız, S., Baştürk, F., & Boz, İ. T. (2014). The Effect of Leadership and Innovativeness on Business Performance. *Procedia - Social and Behavioral Sciences*, 150, 785–793. <https://doi.org/10.1016/j.sbspro.2014.09.064>

Yolcan, O. O. (2023). World energy outlook and state of renewable energy: 10-Year evaluation. *Innovation and Green Development*, 2(4), 100070. <https://doi.org/10.1016/j.igd.2023.100070>