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The Effect of *Enterprise Risk Management* Based on Iso 31000 Company Performance According to An Islamic Business Perspective (Study on Pt Pln Nusantara Power up Tarahan)

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Enterprise Risk Management, ISO 31000, Corporate Performance, Islamic Business Perspective.

Abstract

The electricity sector faces significant challenges related to operational risks, efficiency, and energy supply reliability. This situation demands an integrated and sustainable risk management system. PT PLN Nusantara Power UP Tarahan, as one of the power generation units in Sumatra, has a high urgency to strengthen its risk governance system through the implementation of Enterprise Risk Management (ERM) based on ISO 31000. In addition, the application of Islamic Business Values such as trustworthiness (amanah), honesty (shiddiq), and justice ('adl) is expected to enhance integrity and ethical culture within the organization. This study aims to analyze the effect of Enterprise Risk Management (ERM) based on ISO 31000 on Corporate Performance, as well as to examine its implementation from an Islamic Business Perspective at PT PLN Nusantara Power UP Tarahan. The research employed a quantitative explanatory approach involving 31 respondents selected through purposive sampling, supported by interviews with the Quality, Risk, and Compliance Management Department. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software.

The results indicate that all constructs were valid and reliable, with outer loading values > 0.70, Cronbach's Alpha ranging from 0.781 to 0.951, Composite Reliability from 0.872 to 0.962, and Average Variance Extracted (AVE) from 0.620 to 0.836. Empirically, Enterprise Risk Management has a positive and significant effect on Corporate Performance (T-statistics > 1.96; P-value < 0.05). ISO 31000 has a positive and significant impact on ERM, but it does not have a direct effect on Corporate Performance. In contrast, the Islamic Business Perspective has a positive but insignificant effect on Corporate Performance.

INTRODUCTION

In the era of globalization and rapid technological advancement, companies face numerous challenges and uncertainties that can impact business sustainability. Risk is an inseparable aspect of both routine and non-routine activities in all aspects of the company.

PT PLN Nusantara Power UP Tarahan, located in South Lampung Regency, is a leading power plant unit under the auspices of PT PLN Nusantara Power, which is proven to have the best risk management and company performance in the Sumatra region. With an installed capacity

of approximately 200 MW (2 × 100 MW), UP Tarahan not only focuses on electricity production but also successfully implements a comprehensive and high-standard risk management and operational system. This is evidenced by the award as the Best PLTU Outside Java Island (HSH Unit) at the 2023 PLN Nusantara Power Working Meeting, which assesses aspects of operational reliability, energy efficiency, and the implementation of *Governance, Risk, and Compliance (GRC)* in plant management. A low *Equivalent Force Outage Factor* (EFOR) value of 3.46% and a high *Equivalent Availability Factor* (EAF) of 85.52% are clear indicators of the effectiveness of the risk control and predictive maintenance systems applied. ("PLN NP UP Best Tarahan Outside Java," 2023)

PT PLN Nusantara Power UP Tarahan is committed to maintaining consistency in integrated risk management across all operational lines of the company. Risk management is assessed using *Enterprise Risk Management* and other systematic risk assessment techniques, which are integrated with the PT PLN Nusantara Power Management System within *the Integrated Management System*.(PT PLN Nusantara Power UP Tarahan, 2024)

Enterprise Risk Management is a process that aims to create value for the company and its stakeholders by identifying and mitigating potential risks. Through its implementation, *Enterprise Risk Management* helps companies avoid various direct costs, such as financial losses, bankruptcy, or difficulties in paying obligations to creditors, as well as prevent indirect costs, including a declining reputation that can impact relationships with customers and suppliers.(Wardayati et al., 2023)

Risk management is considered in decision-making (*risk-based thinking*) while still considering various issues, both internal and external, in each company's operational activities. This is done in an effort to anticipate the uncertainty of undesirable conditions, potential emergencies, and natural disasters, and to achieve the target for Enterprise Risk Management Maturity Level. PT PLN Nusantara Power UP Tarahan implements *an Enterprise Risk Management* system by adopting the ISO 31000 standard in risk management.(PT PLN Nusantara Power UP Tarahan, 2024)

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﴿ يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوا اتَّقُوا اللّٰهَ وَلْتَنْظُرْ نَفْسٌ مَّا قَدَّمَتْ لِغَدٍۚ وَاتَّقُوا اللّٰهَۗ اِنَّ اللّٰهَ خَبِيْرٌۢ بِمَا تَعْمَلُوْنَ ١٨ ﴾ (الحشر/59: (18

"*O you who have believed, fear Allah and let everyone pay attention to what he has done for tomorrow. Fear Allah. Indeed, Allah is Thorough in what you do.*" (Al-Hasyr/59:18)

This verse emphasizes the importance of planning and anticipating the risks associated with every action taken by humans. The Company seeks to identify, assess, and manage potential risks to prevent losses or disruptions to operational performance. This principle aligns with the concept of benefit (maslahah) in Islamic economics, which aims to maintain usefulness and to avoid harm (*mafsadah*). Thus, structured and ethical risk management not only supports the achievement of company performance but also becomes a form of moral responsibility to the company, so that every business activity is carried out fairly and transparently.

Research by Amanda Sri Ningrum and Darya Setia Nugraha (2022) entitled "The Influence of GCG and ERM on the Performance of BSC-Based Companies (Case Study on PT Pos Indonesia (Persero) Bandung City)" proves that the implementation of *Good Corporate Governance* (GCG) and *Enterprise Risk Management* (ERM) has a positive effect on company performance. Still, the effectiveness of *Enterprise Risk Management* relies heavily on the consistency of implementation and risk-aware culture across the organization's lines. These results demonstrate that risk management is not sufficient in the form of policies alone, but must be carried out comprehensively, measurably, and sustainably. This condition is relevant to PT PLN Nusantara Power UP Tarahan, which faces operational, environmental, and energy supply risks in maintaining electricity reliability in the Sumatra region, especially Southern Sumatra. For this reason, implementing Enterprise Risk Management based on ISO 31000 is crucial for strengthening risk control and enhancing company performance. Different from the previous research that focused on the service sector, this study has a novelty by examining the effectiveness of *Enterprise Risk Management* in the electricity sector by adopting ISO 31000 as a risk management standard, as well as adding an Islamic business perspective that emphasizes the value of *trust*, *responsibility*, and *maslahah* as an ethical foundation in risk management.

Literature Review

Risk Management

Risk management is defined as a logical and systematic method of identifying, quantifying, assessing, establishing solutions, and monitoring and reporting risks that occur in each activity or pose a threat.(Maralis & Triyono, 2019)

Enterprise Risk Management

Enterprise Risk Management, as outlined in the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2004), explains that effective corporate risk management enables company leaders to address risk uncertainties and opportunities, thereby increasing their capacity to build added value. This added value will be even greater when the company's leaders set strategies and goals to achieve an optimal balance between business growth and existing risks.(Jatiningrum S.E, M.Si, Ph.D,Dr. & Marantika, S.E, M.Si, M.M, 2020)

ISO 31000

ISO 31000 is a standard set for risk management by the International Organization for Standardization. The standard aims to provide widely recognized principles and guidelines in risk management practice. ISO 31000 defines explicitly risk management frameworks and processes.(Susilo & et al, t.t.)

Company Performance

A company's performance can be understood as a comprehensive picture of its ability to maintain its survival and achieve its business goals through effective resource management. This level of performance reflects the extent to which the company can survive, grow, and provide positive signals for the long-term sustainability of its operational and financial activities.(Aziziah et al., 2021).

METHODS

This study uses a quantitative approach with an explanatory method. The research was conducted at PT PLN Nusantara Power UP Tarahan, located in South Lampung. The data used consisted of primary data obtained through the distribution of questionnaires to the employees involved, with a total of 31 respondents, as well as interviews with employees in the field of Quality, Risk, and Compliance Management. In addition to secondary data, including the company's annual report, performance reports, risk management guidelines, and PLN's internal policy documents related to the implementation of ISO 31000. The data collection technique employs purposive sampling, with the criteria being respondents who understand the application of ISO 31000 and Enterprise Risk Management within the company. Data analysis using the Partial Least Squares - Structural Equation Modeling (PLS-SEM) method through SmartPLS 4 software. The reliability of the reality assessment in this study was evaluated using Cronbach's Alpha analysis, with a value of >0.60, indicating that the variable is reliable and consistent in measurement. Hypothesis testing was carried out using *the bootstrapping* method using *the criteria of T-statistics > 1.96* and *P-values < 0.05*.

Research Hypothesis

Hypothesis testing was conducted to determine the direct and indirect relationships between constructs according to the structural model (*inner model*) using *Partial Least Squares* (PLS) analysis in SmartPLS 4 software. The hypotheses proposed in this study are as follows:

H1: *Enterprise Risk Management* has a positive effect on Company Performance.
H2: ISO 31000 has a positive effect on *Enterprise Risk Management*
H3: The implementation of ISO 31000 has a positive impact on the Company's Performance
H4: Islamic Business Perspective has a Positive Effect on Company Performance.

RESULTS AND DISCUSSION

Research Hypothesis

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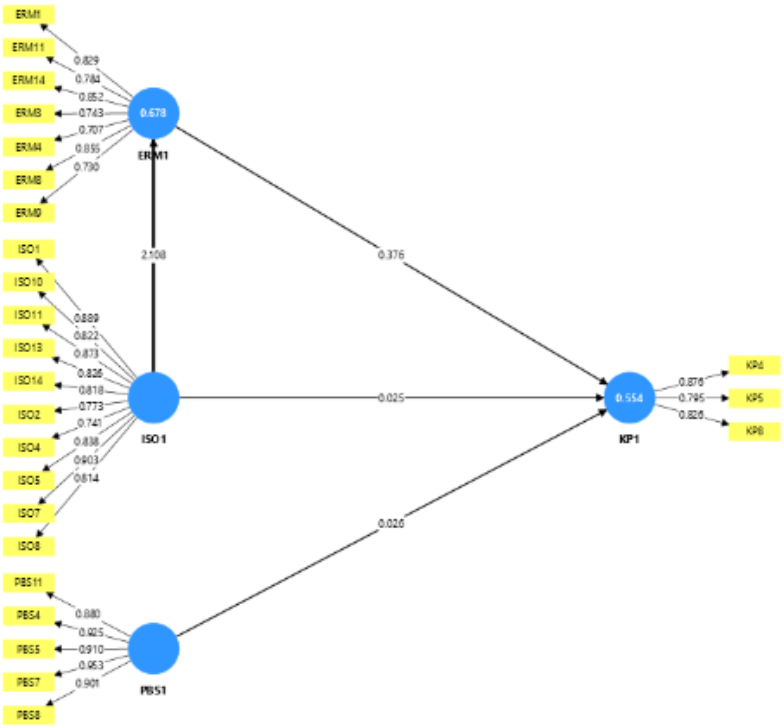

Figure 1.1. Outer Model Test Results
(Source: SmartPLS 4.0)

Uji *Convergent Validity*

Convergent validity is tested by analyzing the loading factor of each indicator, where a value (>0.70) indicates that the indicator accurately measures the intended construct. This test is crucial because it ensures the consistency and accuracy of the measurement, confirming that the indicator accurately represents the latent variable being studied. If the loading factor meets the criteria, the research instrument is considered valid and reliable, making the results of subsequent analyses (such as hypothesis testing) reliable. In contrast, a low loading value (>0.70) indicates that the indicator is not strong enough to measure construction, requiring revision or deletion to maintain the quality of the research model.

Table 1.2
Validity Test Results

Indicator	Enterprise Risk Management (X)	ISO 31000	Company Performance (Y)	Islamic Business Perspective	Condition
ERM1	0.797				VALID
ERM2	0.480				INVALID
ERM3	0.719				VALID
ERM4	0.684				INVALID

ERM5	-0.053				INVALID
ERM6	0.629				INVALID
ERM7	0.692				VALID
ERM8	0.818				VALID
ERM9	0.733				VALID
ERM10	-0.238				INVALID
ERM11	0.724				VALID
ERM12	0.472				INVALID
ERM13	0.444				INVALID
ERM14	0.818				VALID
ERM15	0.241				INVALID
ISO1		0.890			VALID
ISO2		0.759			VALID
ISO3		-0.435			INVALID
ISO4		0.691			INVALID
ISO5		0.810			VALID
ISO6		-0.634			INVALID
ISO7		0.916			VALID
ISO8		0.842			VALID
ISO9		-0.493			INVALID
ISO10		0.794			VALID
ISO11		0.874			VALID
ISO12		-0.154			INVALID
ISO13		0.855			VALID
ISO14		0.798			VALID
ISO15		-0.623			INVALID
KP1			0.432		INVALID
KP2			0.230		INVALID
KP3			-0.179		INVALID
KP4			0.814		VALID
KP5			0.737		VALID
KP6			-0.651		INVALID
KP7			0.610		INVALID
KP8			0.753		VALID
KP9			-0.342		INVALID
PBS1				0.645	INVALID
PBS2				0.416	INVALID
PBS3				-0.597	INVALID

PBS4	0.872	VALID
PBS5	0.912	VALID
PBS6	-0.075	INVALID
PBS7	0.817	VALID
PBS8	0.714	VALID
PBS9	-0.723	INVALID
PBS10	0.004	INVALID
PBS11	0.704	VALID
PBS12	-0.594	INVALID

Source: Data processed with SmartPLS 4.0 202

Uji *Discriminant Validity*

The *discriminant validity* test is conducted to ensure that each indicator within a construct can distinguish itself from indicators of other constructs. This means that the indicator must have a higher correlation to its own construct compared to other constructs. This test aims to assess the uniqueness of each construct, ensuring that there is no overlap in meanings between latent variables.

Table 1.3
Discriminant Validity *Test Results*

Indicator	*Enterprise Risk Management* (X)	ISO 31000	Company Performance (Y)	Islamic Business Perspective	Condition
ERM1	0.797	0.603	0.637	0.419	VALID
ERM2	0.480	0.278	0.277	0.275	INVALID
ERM3	0.719	0.488	0.480	0.567	VALID
ERM4	0.684	0.493	0.504	0.511	INVALID
ERM5	-0.053	0.018	-0.168	0.175	INVALID
ERM6	0.629	0.680	0.471	0.348	INVALID
ERM7	0.692	0.713	0.519	0.608	INVALID
ERM8	0.818	0.742	0.747	0.605	VALID
ERM9	0.733	0.595	0.639	0.549	VALID
ERM10	-0.238	-0.191	-0.349	-0.064	INVALID
ERM11	0.724	0.676	0.452	0.422	INVALID
ERM12	0.472	0.309	0.406	0.352	INVALID
ERM13	0.444	0.635	0.197	0.102	INVALID
ERM14	0.827	0.749	0.701	0.577	VALID
ERM15	0.241	0.342	0.271	0.240	INVALID
ISO1	0.763	0.890	0.529	0.418	VALID
ISO2	0.671	0.759	0.555	0.395	LOW
ISO3	-0.383	-0.435	-0.258	-0.007	INVALID

ISO4	0.806	0.691	0.631	0.673	VALID
ISO5	0.876	0.810	0.678	0.566	VALID
ISO6	-0.519	- 0.634	-0.239	-0.122	INVALID
ISO7	0.782	0.916	0.525	0.367	VALID
ISO8	0.673	0.842	0.340	0.347	LOW
ISO9	-0.422	- 0.493	-0.292	-0.039	INVALID
ISO10	0.665	0.794	0.389	0.573	LOW
ISO11	0.677	0.874	0.422	0.373	LOW
ISO12	-0.228	- 0.154	-0.012	-0.171	INVALID
ISO13	0.692	0.855	0.527	0.435	LOW
ISO14	0.670	0.798	0.552	0.411	LOW
ISO15	-0.472	- 0.623	-0.276	-0.246	INVALID
KP1	0.392	0.491	0.432	0.411	INVALID
KP2	0.274	0.358	0.230	0.056	INVALID
KP3	-0.350	- 0.424	-0.179	-0.233	INVALID
KP4	0.657	0.439	0.814	0.681	LOW
KP5	0.536	0.339	0.737	0.311	LOW
KP6	-0.392	- 0.302	-0.651	-0.473	INVALID
KP7	0.472	0.347	0.610	0.451	INVALID
KP8	0.584	0.444	0.753	0.430	LOW
KP9	-0.139	- 0.036	-0.342	-0.178	INVALID
PBS1	0.600	0.620	0.654	0.645	LOW
PBS2	0.365	0.468	0.311	0.416	INVALID
PBS3	-0.418	- 0.303	-0.409	-0.597	INVALID
PBS4	0.538	0.351	0.459	0.872	LOW
PBS5	0.641	0.460	0.614	0.912	LOW
PBS6	-0.198	- 0.291	0.019	-0.075	INVALID
PBS7	0.509	0.311	0.472	0.817	LOW
PBS8	0.390	0.241	0.342	0.714	INVALID
PBS9	-0.418	- 0.335	-0.526	-0.723	INVALID
PBS10	0.045	0.189	-0.185	0.004	INVALID
PBS11	0.297	0.088	0.402	0.704	INVALID
PBS12	-0.453	- 0.422	-0.435	-0.594	INVALID

Source: Data processed with SmartPLS 4.0 2025

Based on the results of *cross-loading* testing, most indicators have the highest correlation to the construct they represent. This indicates that the model's indicators effectively describe the concept of the construct.

In *the Enterprise Risk Management* construct, six indicators —namely, ERM1, ERM3, ERM8, ERM9, ERM11, and ERM14 —are declared valid with *a loading* value above 0.70. Some other indicators, such as ERM2, ERM4, ERM6, and ERM7, have values below 0.70, while ERM5 and ERM10 have negative values. This means that some indicators have not optimally described the construct and require further evaluation.

The ISO 31000 construct yields the best results, with nine indicators (ISO1, ISO2, ISO5, ISO7, ISO8, ISO10, ISO11, ISO13, and ISO14) having loading values above 0.70. This indicates that the indicator can represent the ISO 31000 concept consistently and does not overlap with other constructs.

For Company Performance, only three indicators (KP4, KP5, and KP8) are valid with *loading* values above 0.70, while the other indicators have low or negative values. This shows that only some indicators can adequately explain the company's performance construct.

Meanwhile, in the Islamic Business Perspective (PBS), there are five valid indicators (PBS4, PBS5, PBS7, PBS8, and PBS11) with *a loading* value above 0.70. Other indicators have low or negative values, so they need to be removed to make the model more consistent.

Overall, these results demonstrate that the model exhibits discriminant validity, as most indicators have the highest correlation with their respective constructs. However, some indicators in the ERM, KP, and PBS constructs require adjustment to enhance the measurement model's accuracy and reliability. The ISO 31000 construct is the most powerful in terms of meeting discriminant validity compared to other constructs.

Table 1.4
Discriminant Validity Test Results

Indicator	Enterprise Risk Management (X)	ISO 31000	Company Performance (Y)	Islamic Business Perspective	Status
ERM1	0.829				VALID
ERM3	0.743				VALID
ERM4	0.707				VALID
ERM8	0.855				VALID
ERM9	0.730				VALID
ERM11	0.784				VALID
ERM14	0.852				VALID
ISO1		0.889			VALID
ISO2		0.773			VALID
ISO4		0.741			VALID
ISO5		0.838			VALID
ISO7		0.903			VALID
ISO8		0.814			VALID

ISO10	0.822			VALID
ISO11	0.873			VALID
ISO13	0.826			VALID
ISO14	0.818			VALID
KP4		0.876		VALID
KP5		0.795		VALID
KP8		0.826		VALID
PBS4			0.925	VALID
PBS5			0.910	VALID
PBS7			0.953	VALID
PBS8			0.901	VALID
PBS11			0.880	VALID

Source: Data processed with SmartPLS 4.0 2025

The test results indicate that all constructs in this study have met the criteria for *discriminant validity*. This can be seen from the outer *loading* value of each indicator, which is greater than the construct itself compared to other constructs, and is entirely above the minimum limit of 0.70.

In *the Enterprise Risk Management construct*, seven indicators have loading values between 0.707 and 0.855, with the highest value at ERM8 (0.855). This indicates that all indicators effectively represent the Enterprise Risk Management construct.

The ISO 31000 construct also shows excellent results, with *loading* values ranging from 0.741 to 0.903. The ISO7 indicator has the highest value (0.903), indicating strong consistency in describing the implementation of ISO 31000-based risk management standards.

Furthermore, in the Company Performance construct, three indicators — namely, KP4, KP5, and KP8 — have *an outer loading value* between 0.795 and 0.876. All three are valid and quite representative in explaining the company's performance.

The Islamic Business Perspective construct also yielded excellent results, with five valid indicators having loading values ranging from 0.880 to 0.953. The PBS7 indicator (0.953) is the most powerful in representing this variable. Overall, these results confirm that all constructs in the study have met the *discriminant validity* criteria. Each indicator has the highest correlation with its own construct, allowing the measurement model to be declared valid and enabling the clear distinction of each variable.

Reliability Test

The *composite reliability* test aims to assess the consistency of an instrument's measurement results, even when they are obtained at different times, places, and populations. Thus, a reliable instrument is needed to produce stable and accurate data, thereby increasing confidence in the analysis and interpretation of research results. In this study, *the reliability* test included *Cronbach's Alpha, rho_A, Composite Reliability,* and *Average Variance Extracted* (AVE).

Table 1.5
Reliability Test Results

Variabel	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)	Status
Enterprise Risk Management	0.898	0.912	0.919	0.620	Reliabel
ISO 31000	0.950	0.960	0.957	0.691	Reliabel
Company Performance	0.781	0.798	0.872	0.694	Reliabel
Islamic Business Perspective	0.951	0.962	0.962	0.836	Reliabel

Source: Data processed with SmartPLS 4.0 2025

Uji *Inner Model*

An *inner model* test or structural model was conducted to analyze the relationship between constructs, significance values, and R-squared in the research model. The inner test of the model was performed using R-squared for dependent construction, t-test, and its significance.

R-Square Test (R2)

The R-squared test is used to determine the extent to which independent variables contribute to explaining variations in dependent variables. The R-Square value indicates the proportion of variance that the model can explain. In contrast, the R-Square Adjusted value provides a value that has been adjusted for the number of variables in the model. The higher the R-Square value, the better the model's ability to explain the relationships between variables.

Table 1.6
R-Square

Variabel	R-square	R-square adjusted
ERM1	0.678	0.667
KP1	0.554	0.505

Source: Data processed with SmartPLS 4.0 2025

The test results showed that *the Enterprise Risk Management construct* had an R-squared value of 0.678 and an R-squared adjusted value of 0.667. This means that the independent variables in the model can explain approximately 67.8% of the variation in Enterprise Risk Management, while factors outside the model explain the remaining 32.2%. This value falls into the strong category, indicating that the model has good predictive capabilities.

Meanwhile, the Company's Performance construct yielded an R-squared value of 0.554 and an R-squared adjusted value of 0.505, indicating that the independent variables account for 55.4% of the variation in Company Performance. In comparison, the remaining 44.6% is attributed to other factors. This value is moderate, indicating that the model performs exceptionally well in explaining the relationships between variables.

Overall, the research model was considered relevant and exhibited good explanatory ability, with the Enterprise Risk Management construct demonstrating higher predictive power compared to the Enterprise Performance construct.

Uji Hypothesis

Tabel 1.7
Path Coefficients Test Results

Relationships Between Variables	Line Coefficient (O)	T-Statistics	P-Values	Information
ERM → Corporate Performance (KP)	0.808	3.166	0.002	Signifikan
ISO 31000 → ERM	0.824	20.191	0.000	Signifikan
ISO 31000 → Corporate Performance (KP)	-0.190	0.888	0.374	Insignificant
Islamic Business Perspective (PBS) → Corporate Performance (KP)	0.132	0.587	0.557	Insignificant

Source: Data processed with SmartPLS 4.0 2025

Based on the test results, the relationship between ISO 31000 and *Enterprise Risk Management* has a coefficient value of 0.824 with a p-value of 0.000, indicating a statistically significant and positive relationship. This means that the better the implementation of ISO 31000, the more effective the implementation of *Enterprise Risk Management* in the organization.

Enterprise Risk Management has a significant positive effect on the Company's Performance with a coefficient value of 0.808 and a p-value of 0.002. These results demonstrate that enhancing corporate risk management directly contributes to improving the company's performance.

The effect of ISO 31000 on Company Performance has a coefficient value of -0.190 with a p-value of 0.374, and the impact of the Islamic Business Perspective on company performance is 0.132 with a p-value of 0.557. Neither is significant, which means that the application of ISO 31000 and Islamic business values has no direct effect on the company's performance. These results indicate that the influence of ISO 31000 on Company Performance occurs indirectly through Enterprise Risk Management, with Enterprise Risk Management being the variable that has the most significant impact on improving company performance.

Hypothesis Analysis Results

The Influence of *Enterprise Risk Management* on Company Performance

The test results showed that *Enterprise Risk Management* had a positive and significant effect on Company Performance, with a coefficient value of 0.808, *a T-statistic of 3.166, and a p-value* of 0.002 (< 0.05). This means that the better the implementation of *Enterprise Risk Management*, the higher the company's performance will be. These findings align with the theory that Enterprise Risk Management serves to identify, assess, and manage risks that can impact an organization's overall goals. Based on the interview results, PT PLN Nusantara Power UP Tarahan has implemented an integrated risk management system through the I Care platform, which is used for quarterly risk monitoring. This system enables management to mitigate risks, enhance operational reliability, and maintain the stability of the electricity supply in the Sumatra region, particularly in southern Sumatra. Thus, the implementation of a robust Enterprise Risk Management has proven to be one of the key factors in enhancing company performance.

The Impact of ISO 31000 on *Enterprise Risk Management*

Based on the analysis results, the ISO 31000 variable had a positive and significant effect on Enterprise Risk Management, with a coefficient value of 0.824, a T-statistic of 20.191, and *a p-value* of 0.000 (< 0.05). This demonstrates that the application of ISO 31000 principles plays a crucial role in enhancing the effectiveness of Enterprise Risk Management within companies. ISO 31000 is a standard guideline that provides a systematic framework for identifying, analyzing, and mitigating risks.

Based on the interview results, although PT PLN Nusantara Power UP Tarahan does not hold formal ISO 31000 certification, the implementation of its principles has been carried out consistently in accordance with the parent company's policy. This implementation is reflected in the integration of risk management programs with the quality and safety system. Thus, ISO 31000 is proven to strengthen *the Enterprise Risk Management* system, ensuring that risk management within the company operates in accordance with international standards.(Yenni Devita Siregar, personal communication, October 13, 2025)

The Influence of ISO 31000 on Company Performance

The test results showed that the relationship between ISO 31000 and Company Performance had a negative direction, with a coefficient value of -0.190, a T-statistic of 0.888, and a *p-value* of 0.374 (> 0.05). This result suggests that the implementation of ISO 31000 does not have a direct and significant impact on improving the company's performance. The negative direction indicates that even though the implementation of ISO 31000 is well done, the effect on performance is not immediately visible unless the implementation of Enterprise Risk Management accompanies it.

Based on the interview results, it is evident that the implementation of ISO 31000 at PT PLN Nusantara Power UP Tarahan remains primarily focused on compliance with central policies and guidelines, rather than on direct evaluation of operational performance. Thus, it can be concluded that the influence of ISO 31000 on performance is indirect, mediated by the role *of Enterprise Risk Management*.(Yenni Devita Siregar, personal communication, October 13, 2025)

The Influence of Islamic Business Perspectives on Company Performance

Based on the test results, the Islamic Business Perspective has a positive but insignificant effect on the Company's Performance, with a coefficient value of 0.132, *a T-statistic of 0.587, and a p-value of 0.557 (p*> 0.05). These results show that the application of Islamic values has not had a direct influence on improving the company's performance.

Based on the results of the interview, PT PLN Nusantara Power UP Tarahan has implemented Islamic ethical values, such as trust, honesty, and fairness, in its operational activities. This is reflected in the policy *of "4 NO's for Integrity"* (no bribery, no gratuity, no corruption, and no collusion), as well as the implementation of social programs such as the Social and Environmental Responsibility Program (TJSL) and employee zakat through YBM (Baitul Mal Foundation). These values strengthen the culture of ethics and integrity in the work environment, but they are not yet a quantitatively measurable performance indicator. Therefore, the influence of the Islamic Business Perspective is more moral and cultural than the direct influence on performance.(Zulfa M. Yamin, personal communication, October 13, 2024)

Research Implications

The results of this study have important implications both theoretically and practically. Theoretically, this research supports the concept that the effectiveness of Enterprise Risk Management is a crucial factor in enhancing company performance, particularly in the energy sector. These findings also affirm the role of ISO 31000 as a framework that supports the implementation *of structured and sustainable Enterprise Risk Management*. In addition, this research offers a new perspective by integrating Islamic business values into the context of modern risk management, thereby expanding the understanding of risk management that is not only profit-oriented but also ethical and sustainable. Practically, the study's results provide input for PT PLN Nusantara Power UP Tarahan to continue strengthening the implementation of Enterprise Risk Management based on ISO 31000, particularly in integrating risk monitoring systems across each operational unit. In addition, the company is expected to deepen the internalization of Islamic values, such as trust, responsibility, and justice, in the decision-making process, thereby creating a balance between performance achievement, risk governance, and organizational spiritual values.

CONCLUSION

Based on the research results, it can be concluded that Enterprise Risk Management has a positive and significant impact on Company Performance. This demonstrates that the practical implementation of Enterprise Risk Management can improve operational efficiency, plant reliability, and the achievement of company targets at PT PLN Nusantara Power UP Tarahan. Integrated risk monitoring systems, such as I Care, have been proven to support the continuous improvement of company performance. The implementation of ISO 31000 has a positive and significant effect on *Enterprise Risk Management*. The implementation of ISO 31000 principles strengthens the risk management structure and processes, especially in terms of risk identification, evaluation, and mitigation. Although the UP Tarahan unit has not been formally certified to ISO 31000, the principle has been applied in accordance with PLN Nusantara Power's central policy.

The implementation of ISO 31000 has no direct effect on the Company's Performance. Negative coefficient values and insignificant results suggest that the influence of ISO 31000 on performance is indirect, mediated by the effectiveness of Enterprise Risk Management. This means that the implementation of the new ISO 31000 standard will have an impact on improving performance if followed by a strong and comprehensive *implementation of Enterprise Risk Management*. The Islamic Business Perspective has a positive but not significant effect on the Company's Performance. Values such as *trust*, *honesty*, *responsibility*, and *maslahah* have become a culture of work ethics at PLN NP UP Tarahan, reflected in the *"4 NO's for Integrity" policy*, as well as through social

activities, including employee zakat through YBM. However, these values have not yet become a factor that is directly measured in a company's performance appraisal system.

Enterprise Risk Management is the most dominant variable in improving company performance. The implementation of ISO 31000 plays a crucial role in strengthening the Enterprise Risk Management system, while Islamic business values serve as the moral and ethical basis for implementing risk management. The combination of *effective Enterprise Risk Management* and an organizational culture rooted in Islamic values is a crucial foundation for sustainability and corporate governance with integrity.

Suggestion

This research has several limitations that need to be considered. The study was conducted only at one power plant, namely PT PLN Nusantara Power UP Tarahan, so the results cannot be generalized to all PLN Nusantara Power units in the Sumatra or Indonesia regions. The measurement of Islamic Business Perspective in this study remains conceptual and has not been fully developed into empirically measurable indicators. This study is *cross-sectional*, so it cannot describe the dynamics of implementing *Enterprise Risk Management* and ISO 31000 in the long term.

The subsequent research is suggested to expand the object of study to several PLN Nusantara Power units in other regions. Additionally, it is necessary to develop instruments for measuring Islamic business values, enabling more quantitative and objective assessments. Subsequent researchers may also incorporate moderation or mediation variables, such as organizational culture, Islamic leadership, or corporate governance, to further deepen the understanding of the relationship between Enterprise Risk Management, ISO 31000, and corporate performance within the context of Islamic values

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