

## Effect of Enterprise Risk Management on Company Value with Profitability and Capital Structure as Moderation Variables in LQ45 Companies (period 2020-2023)

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### **Keywords :**

Enterprise Risk Management (ERM), Company Value, Profitability, Capital Structure, LQ45 Index

### **Abstract**

*This study aims to analyze the effect of implementing Enterprise Risk Management (ERM) based on the COSO framework on firm value, considering profitability and capital structure as moderating variables. Firm value is an important indicator in reflecting the performance and prospects of an entity, especially in the context of companies included in the LQ45 index on the Indonesia Stock Exchange. This study uses a quantitative approach with secondary data obtained from annual reports and stock market information of LQ45 companies during the 2020–2023 period. The analysis method used is moderated regression to test the relationship between ERM and firm value, as well as the moderating role of profitability (measured by Return on Assets) and capital structure (measured by Debt to Equity Ratio). The results of the study indicate that ERM has a positive effect on firm value. In addition, profitability and capital structure are proven to strengthen the relationship. These findings emphasize the importance of integrated risk management and strengthening internal financial performance to increase firm value amidst maximum market dynamics.*

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## INTRODUCTION

This research focuses on the analysis of the effect of the application of Enterprise Risk Management (ERM) based on COSO framework to company value in issuers incorporated in the Indonesian Stock Exchange Index during the 2020-2023 period. The LQ45 index was chosen because it consists of companies with high liquidity, large market capitalization, and strong financial fundamentals, which make it representative in the study of governance and risk management.

The value of the company, as the main indicator in assessing the performance and growth of an entity, is the main concern of investors in making investment decisions. In uncertain market conditions-as happened during the COVID-19 Pandemic-important for companies to have an integrated and effective risk management system. ERM comes as a strategic approach to identify, evaluate, and manage risks as a whole, with the aim of increasing the stability and value of the company.

However, the influence of ERM on company value is not always consistent in various previous studies. Therefore, this study considers two moderation variables, namely profitability (measured by return on assets) and capital structure (measured by the debt to equity ratio), which is thought to be able to strengthen or weaken the relationship between ERM and company value. Profitability reflects the efficiency of the company in generating profits, while the capital structure shows the proportion of company funding through debt and equity.

By utilizing quantitative data from financial statements and stock markets, this research is expected to make a theoretical contribution to the development of corporate risk management and financial science, as well as practical implications for decision makers in companies and investors. This study also paid special attention to the context of the 2020-2023 global crisis to describe the relevance of risk management in maintaining the sustainability and growth of company value.

## METHODS

This study uses a quantitative approach that aims to test the effect of enterprise risk management (ERM) on company value, as well as evaluating the role of profitability and capital structure as a moderation variable. The selection of a quantitative approach is based on its ability to test hypotheses objectively through statistical analysis. Through this approach, research is directed to provide an empirical picture of the relationship between the implementation of company risk management and market performance, as well as how the company's internal conditions, in this case profitability and capital structure, can strengthen or weaken the influence.

This type of research is descriptive and causal. Descriptive because it illustrates the characteristics of data and causal because it is trying to explain the causal relationship between the variables studied. The research design used is the data analysis panel, which combines cross-section dimensions (data from several companies) and time-series (data over a certain period of time). This design gives advantages in capturing the dynamics that occur in various companies from time to time. This study is classified as non-interventional because researchers do not provide direct treatment to the object under study, but rather using secondary data that is already available.

The variables used in this study consist of three main groups. First, the independent variable is ERM, which is measured based on the disclosure score according to the COSO framework Erm (2017). This score assesses how well the company communicates the strategy and management of its risks systematically. Second, the dependent variable is the value of the company measured using the Tobin's Q ratio, which reflects the comparison between market value and book value of the company's assets, and is an indicator of how the market assesses the company's prospects going forward. Third, there are two moderation variables, namely profitability measured using Return On Assets (ROA), and the capital structure measured by the Debt to Equity Ratio (DER). ROA describes the company's efficiency in using assets to generate profits, while DER reflects the level of company dependence on debt -based funding.

This research was conducted systematically through several main stages. The initial stage is observation of empirical phenomena and problem identification, which forms the basis in formulating research topics. Furthermore, the initial information gathering through literature and documentation studies to enrich the theoretical foundations used. Then formulated a theoretical framework that relies on agency theory and stakeholder theory. The agency theory explains the potential conflict of interest between management and shareholders, while stakeholder theory expands management attention to all parties concerned with the company, including investors, creditors, and the community. Based on these theories, researchers compile hypotheses that form the basis of analysis. Secondary data were obtained from annual reports and company sustainability reports during the 2020-2023 period. The final stages include data processing using descriptive statistical analysis and data panel regression, as well as drawing conclusions based on the results of the analysis.

The population in this study are all companies that are members of the LQ45 index on the Indonesia Stock Exchange (IDX) during 2020 to 2023. The LQ45 index was chosen because it represents a company with high liquidity and relatively stable fundamental performance, so it is relevant to review ERM practices and company value. Sampling was carried out by the purposive sampling method, namely by setting company criteria which consistently included in the LQ45 index and issuing a complete annual report during that period. Based on this criterion, 26 companies were obtained as a sample, with a total of 104 observation units (26 companies  $\times$  4 years).

The main data source is secondary data collected through annual report documentation and sustainable reports, as well as literature studies from scientific journals and relevant publications. Data collection techniques are carried out by literature study methods, which include the search and study of documents from the official IDX website and other credible sources. With this approach, researchers can ensure that the data used has adequate validity and reliability.

The data analysis process is carried out in several stages. First, descriptive statistical analysis is used to describe the characteristics of each variable. Statistics displayed include the average value, standard deviation, minimum value, and maximum. This analysis provides an initial picture of the distribution and consistency of data. Second, a classic assumption test is carried out to ensure the feasibility of the regression model to be used. Multicollinearity test is applied to detect high correlation between independent variables that can affect regression results, while heteroscedasticity tests are used to determine whether residual variance is constant.

Third, data panel data regression analysis is applied as the main technique for testing the relationship between ERM and company value. In panel regression, three model approaches are used, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (Rem). The selection of the best models is carried out through a series of statistical tests such as the Chow Test (to compare the CEM with FEM), the hausman test (to compare FEM and Random Effect Model), as well as the multiplier lagrange test (to compare the CEM with the Random Effect Model). The most appropriate model is chosen to guarantee the validity of the analysis results.

Fourth, the analysis of moderated regression analysis (MRA) is used to determine the extent of profitability and capital structure acts as a moderation variable in the relationship between ERM and company value. In this technique, the interaction model between ERM and each moderation variable is used to test whether the effect of ERM on the company's value changes depending on the level of profitability and capital structure. The significance of interaction is analyzed to assess whether moderation is strengthening or weakening the main influence.

Hypothesis testing is carried out through several statistical tests. The F test is used to determine the significance of the influence of all independent variables and interactions on the dependent variable simultaneously. Meanwhile, the T test is used to test the effect of each variable partially or individually on company value. In addition, the coefficient of determination ( $R^2$  and Adjusted  $R^2$ ) is used to measure how much the proportion of the company's value variations that can be explained by the model. The high  $R^2$  value indicates that the model is able to explain the variation of data well, while the adjusted  $R^2$  value takes into account the number of variables in the model so that it is more accurate in the assessment of the model with many variables.

Overall, this research design provides a strong foundation in examining the effect of risk management on company value, as well as the role of the company's internal factors as an element that can moderate the relationship. By using comprehensive panel data and analysis techniques, this research is expected to contribute empirical and theoretical in the financial management literature and corporate governance. The results of this study will not only be relevant for academics, but also for business people and company policy makers in designing effective risk management strategies and are oriented towards creating long-term values.

## RESULTS AND DISCUSSION

### Descriptive Statistics Analysis

Based on the results of descriptive statistics analysis, the Return on Assets (ROA) variable

as a proxy for profitability shows a minimum value of 0.01 and a maximum of 0.31, with an average value of 0.0769 and a standard deviation of 0.07471. The relatively low average value indicates that most companies in the sample have a limited level of asset management efficiency in generating profits during the 2021–2023 period. However, the maximum value of 0.31 indicates that there are several companies that have succeeded in managing assets very effectively to generate profits, despite the disparities between companies.

Meanwhile, the Tobin's Q value used as an indicator of company value shows a very wide range, from a minimum value of 0.18 to a maximum of 98.35, with an average of 8.8138 and a standard deviation of 21.05634. This disparity reflects a significant difference in market perception of the company's intrinsic value. Companies engaged in the energy and mining sector, such as PT Merdeka Copper Gold Tbk (MDKA) and PT Adaro Energy Indonesia Tbk (ADRO), show very high Tobin's Q values, indicating high market expectations of the company's future growth prospects. Conversely, low Tobin's Q values in several manufacturing and consumer companies reflect more stable but conservative market conditions in assessing long-term performance and prospects.

The capital structure variable, as measured by the Debt to Equity Ratio (DER), shows a minimum value of 0.26 and a maximum of 0.44, with an average of 0.3177 and a standard deviation of 0.03766. The relatively narrow range and low standard deviation values indicate that companies in the sample tend to have a uniform funding structure, with a moderate proportion of debt to equity. This can be interpreted as the company's effort to maintain long-term financial health and minimize financial risks that can disrupt operational stability.

Enterprise Risk Management (ERM), which is assessed through a disclosure score based on the COSO framework, has a minimum value of 3.00 and a maximum of 4.00, with an average of 3.8173 and a standard deviation of 0.32831. The high average value indicates that most companies have implemented structured and systematic risk management. The uniformity of the ERM score also reflects that companies included in the LQ45 index have generally realized the importance of integrating risk management in their strategic decision making.

The unstandardized prediction value of the regression model shows a range from -3.38378 to 13.20825, with an average of 8.8138. This indicates a variation in the contribution of each predictor to the company's value, and emphasizes the importance of considering the company's internal factors in explaining the dynamics of market value.

## DISCUSSION

The results of the regression analysis show that Enterprise Risk Management (ERM) has a positive and significant effect on company value. This finding is in line with agency theory, which states that effective risk disclosure and management can reduce information asymmetry between management and shareholders, and increase investor confidence in the company's prospects and stability (Boyson et al., 2017; Kashif Shad & Lai, 2019). Good ERM implementation also reflects healthy corporate governance, so that the market responds positively through increased valuation. Furthermore, the results of the interaction analysis show that profitability (ROA) significantly strengthens the effect of ERM on company value. Companies

that have high levels of profitability tend to have greater financial flexibility to implement a comprehensive and sustainable risk management system. In addition, high profitability is an indicator of management efficiency and operational resilience, which in turn increases investor confidence in the success of implementing ERM strategies in creating long-term value.

On the other hand, capital structure has also been shown to act as a significant moderating variable. Companies with a healthy capital structure, characterized by a balanced DER, tend to have stronger financial resilience in the face of uncertainty and external risks. This strengthens the positive influence of ERM on firm value. Conversely, an overly aggressive capital structure with a high debt portion can reduce the effectiveness of ERM because high financial pressure can hinder strategic decision-making in risk mitigation (Labu et al., 2024).

Overall, the results of this study confirm that ERM implementation not only contributes directly to increasing firm value but is also influenced by the company's internal conditions such as profitability and capital structure. This finding is consistent with previous studies by Anggreni et al. (2021), Maharani & Yonnedi (2023), and Iswajuni et al. (2018), which state that the effectiveness of risk management depends on internal capabilities and corporate governance.

In the context of global uncertainty and market dynamics during the 2020–2023 period, including the impact of the COVID-19 pandemic and commodity price fluctuations, these results become increasingly relevant. Companies that successfully maintain solid financial performance and implement ERM comprehensively are proven to be more capable of maintaining the stability of the company's value amid market pressures. Therefore, company management is advised to continue to integrate ERM into the overall corporate strategy, with the support of an efficient and well-structured internal financial system.

## CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that the application of Enterprise Risk Management (ERM) has a positive influence on the company's value in companies that are members of the LQ45 index period 2020-2023. EFH implementation is effective in managing various risks faced by the company, which in turn increases investor confidence and has a positive impact on the company's value. However, the relationship between ERM and company value is not direct, but is influenced by moderation factors in the form of profitability and capital structure. Company profitability is proven to strengthen the effect of ERM on company value, because more profitable companies tend to be more capable of managing risk and dealing with market uncertainty. Likewise, a healthy capital structure provides greater financial flexibility in managing risk, which contributes to increasing company value.

Based on these findings, it is recommended that companies registered in the LQ45 index, as well as other companies, increasingly pay attention to the implementation of ERM in their managerial strategy. The application of comprehensive ERM can increase company resilience to various risks and improve long-term performance. The company is also advised to pay attention to profitability and capital structure as an important factor that can strengthen the relationship between ERM and company value. Therefore, the company should focus on efforts to increase profitability through operational efficiency and good cost management, as well as maintaining optimal capital structure by considering a healthy debt ratio. In addition, transparent and accountable risk management policies can also improve the company's image in the eyes of

investors, which in turn can encourage an increase in company value in the capital market. Further research can be conducted to deepen understanding of other factors that can affect the relationship between ERM and company value, as well as to explore the dynamics of certain sectors in the context of the Indonesian capital market.

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