**The Effect of Ceo Compensation, Ceo Managerial Ability, and Ceo Tenure on the Company's Financial Performance with Der as the Mediating Variable**

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|  |  |
| --- | --- |
|  |  **ABSTRACT** |
| **Keywords:** CEO compensation; CEO managerial ability; upper echelon theory; debt convenience ratio; agency theory. | This study seeks to assess whether CEO Compensation, Managerial Ability, and Tenure individually have a positive and significant impact on the Debt-to-Equity Ratio. Additionally, it aims to determine whether CEO Compensation, Managerial Ability, Tenure, and the Debt-to-Equity Ratio significantly and positively influence Return on Assets. The study employs a quantitative path analysis methodology using Eviews version 12 statistical software. Data comprises secondary sources from annual financial reports available on the Indonesia Stock Exchange website, covering a 5-year span (2018-2022) across 25 companies in the Consumer Non-Cyclicals sector listed on the IDX, resulting in 125 observations. The findings reveal that (1) CEO Compensation does not positively affect the Debt-to-Equity Ratio, (2) CEO Managerial Ability negatively impacts the Debt-to-Equity Ratio, (3) CEO Tenure does not negatively affect the Debt-to-Equity Ratio, (4) CEO Compensation does not positively influence Return on Assets, (5) CEO Managerial Ability does not positively impact Return on Assets, (6) CEO Tenure does not have a positive effect on Return on Assets, (7) the Debt-to-Equity Ratio negatively impacts Return on Assets, and (8) the Debt-to-Equity Ratio does not mediate the effect of CEO Tenure on Return on Assets. |
|  |
|  | **https://jurnal.syntax-idea.co.id/public/site/images/idea/88x31.png** |

**Introduction**

The primary goal of a business is to generate sustained earnings. Sustainable and reliable profits will contribute to the company's worth. An increase in company value reflects good financial management capabilities. Good financial management is strong evidence of financial performance that aligns with the company's goals and aspirations. Companies with sustainable and relatively stable profits are more attractive to investors and consumers because there is a direct relationship between financial performance and the increase in company value. Company performance can be linked to financial performance, where managers strive to achieve profits by minimizing costs as much as possible.

There are various alternatives for assessing management's success in managing and realizing the company's goals and aspirations. One way is to look at the financial performance produced by management as the main responsible party in achieving the company's ideals and objectives. Good financial performance can certainly create added value for various stakeholders. For shareholders, for example, good and positive financial performance by management might create new expectations in the way of a rise in the value of the shares per unit or the receipt of dividends at the conclusion of the reporting period. Good financial performance can enhance shareholder welfare through an ongoing increase in earnings per share. Similarly, for other stakeholders, particularly management as the company's operators, good financial performance will create possibilities and expectations for obtaining incentives and other bonuses.

Financial performance is fundamentally a method for measuring the health of a corporation, describe the effectiveness of asset utilization, and assess management's ability to increase revenue. Management's success in creating and delivering added value for various stakeholders is a manifestation of successful financial performance. According to Merchant and Stede (2014: 455), Financial performance is one of the benchmarks that may be utilized to evaluate the achievement of business management.

The main objective of the company is to generate sustainable profits. Sustainable and stable profits will help enhance the company's value. An increase in company value reflects good financial management capabilities. Good financial management is strong evidence of financial performance that aligns with the company's goals and aspirations. Companies with sustainable and relatively stable profits are more attractive to investors and consumers because there is a direct relationship between financial performance and the increase in company value. According to (Le Thi Kim et al., 2021), financial performance is crucial for business structure and development, and every manager always pays attention to high financial performance. However, several factors often hinder these goals and affect company performance. The financial performance of a company is used to measure current and future growth. ROE and ROA are the most commonly used ratios to measure financial performance in studies, although many indicators estimate financial performance.

The profitability ratio measures how efficiently a corporation allocates its resources and finances to make profits. The most widely utilized return metrics are return on assets (ROA) and return on equity (ROE). Higher values of these performance measures indicate how efficiently an organization utilizes its resources and funds. Included in this category is the return on investment (ROI), which assesses the overall efficiency of a company by balancing net income against the total value of investments (Siahaan et al., 2021).

Increasing Return on Assets (ROA) enables a company to boost its net profit margin, which can in turn elevate its sustainable growth rate. When a company’s sustainable growth rate surpasses its actual growth rate, it gains strategic options for utilizing excess cash to enhance profitability. This surplus cash can also support revenue growth. A high ROA reflects the company’s efficiency in generating profits, indicating that greater profitability strengthens its profit-generating capacity. Evaluating company performance reveals its operational profitability, essential for meeting creditor and investor expectations and for value creation. As noted by (Teknikal & Regresi, 2018.), ROA serves as a metric that represents returns from a company’s total asset base. It is a valuable indicator of profitability, as it demonstrates how well management leverages assets to drive revenue, highlighting asset utilization in profit generation.

Profitability refers to how profitable the business is and ability to make earnings for the stockholders (Sutarni & Maharati, 2023). Higher profitability reflects a business's ability to allocate resources, manage costs, and generate revenue; it is generally associated with a higher business value. Business financial performance is typically assessed using profitability measures such as net profit margin (NPM), return on assets (ROA), and return on equity (ROE) (Yosefin & Anggraini, 2019) related to the company's prospects (SAPUTRO & Purwanto, 2013).

The profitability indicators of a company can be determined based on the profits achieved and its profitability. Thus, the company can achieve higher profitability and operate more efficiently. A high ROE value means that the company provides new funds that allow it to grow in the future and create a favorable market environment.

Given the significance of the Chief Executive Officer (CEO), researchers and practitioners are increasingly interested in understanding how CEOs affect the enterprises they run. One of the key ways CEOs influence their organizations is by maneuvering, as noted by Berson et al. (2008). CEOs instill their values in the company through their strategic decisions.

Several factors influence a company's performance, including remuneration, managerial ability, and tenure. Previous domestic and foreign research on the association between CEO salary, board performance, and business financial performance has yielded mixed results. Some researchers discovered a positive correlation between CEO salary and the company's financial performance (Alfawareh et al., 2023). On the other hand, research by Osei-Bonsu & Lutta (2016) found no relationship between the cash compensation of directors and the company’s financial performance.

According to (Djuitaningsih & Rahman, 2012), managerial ability refers to the skills or traits possessed by individuals that help achieve high performance in managing tasks. Robert L. Katz states that all managers in a company need three basic types of skills: technical, human capital, and conceptual. According to (Damayanti & Subekti, 2015), management ability is crucial for investors as it will affect business performance. A manager must always possess new knowledge and be sensitive to events around them. Currently, many things are changing and evolving, so the success or failure of a company depends on its management efforts.

Research into the link between managerial skill and firm performance shows a positive correlation, as demonstrated by (Chen et al., 2023), (Inam Bhutta et al., 2021), (Andreou et al., 2013), (Damayanti & Subekti, 2015). There are also research findings indicating that managerial ability does not impact the company’s financial performance.

One characteristic often associated with CEOs is tenure, which is frequently linked to experience. CEOs who serve longer typically have more experience and relationships with employees (Budastra et al., 2023). CEOs with longer tenures tend to have more experience, and those with extended tenures are considered beneficial for the company (J Mbekomize et al., 2021).

Research on the relationship between managerial tenure and company performance shows a positive correlation, as demonstrated by (Budastra et al., 2023). However, research conducted by (Ahmad et al., 2022), (Saudicha & Kautsar, 2024), and (Prihatni & Handarini, 2023) Indicates that managerial tenure does not have a significant effect and does not influence company performance.

The diversity of phenomena and research findings has drawn researchers' attention to conduct this study, focusing on samples of Consumer Non-Cyclicals companies listed on the IDX during the period from 2018 to 2022. The author concentrates on the financial compensation/remuneration received directly by the board of directors, managerial ability, and CEO tenure concerning the company’s financial performance, mediated by the DER. CEO compensation, managerial ability, and CEO tenure are considered to have a significant influence on an individual's performance as they can trigger, motivate, and impact the financial performance of companies in Indonesia. The novelty of this research utilizes the DER variable, as per the study by (Odhiambo et al., 2022), which suggests that the power of the CEO influences the negative relationship between the DER ratio and the company’s financial performance.

**Method**

**Research Design**

This study employs a quantitative approach to examine hypotheses and quantify the impact of independent variables on dependent variables. The objective is to draw statistically valid and generalizable conclusions from measurable data. The research specifically investigates how CEO Compensation, CEO Managerial Ability, and CEO Tenure influence a company's Financial Performance, with DER as a mediating variable..

**Data Source, Place, and Time of Research**

The study relies on secondary data, obtained from the Indonesia Stock Exchange (IDX), online sources, and company annual reports. Documentary data, including financial statements and annual reports, serve as the primary information sources, focusing on Consumer Non-Cyclicals sector companies listed on the IDX. This research covers the period from 2018 to 2022 and integrates data collection from financial statements and related literature to support the analysis.

Secondary data is the result of data that has been processed by other parties. The data was obtained from institutions or agencies.

**Results and Discussion**

**Descriptive Statistical Analysis**

According to Ghozali (2014), descriptive statistics are descriptive or a description of data that can be seen from the mean, standard deviation, minimum, and maximum. The variables in this study include CEO Compensation (X1), CEO Managerial Ability (X2) and CEO Tenure (X3) as independent variables, Debt to Equity Ratio (Z) variable as mediation variable (independent and dependent), and Return on Assets (Y) variable as dependent variable.

**Table 1
Descriptive Statistics of Research Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | CEO *Compensation* (X1) | CEO *Managerial Ability* (X2) | CEO *Tenure* (X3) | *Debt to Equity Ratio* (Z) | *Return on Assets* (Y) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Mean | 40,79816 | 0,877680 | 13,83200 | 0,865760 | 0,071869 |
| Maximum | 332,4300 | 1,000000 | 51,00000 | 5,370000 | 0,607170 |
| Minimum | 0,130000 | 0,240000 | 1,000000 | -2,120000 | -0,215730 |
| Std. Dev. | 69,90852 | 0,195416 | 13,07468 | 0,821053 | 0,100853 |
| Observations | 125 | 125 | 125 | 125 | 125 |

Table 1 presents descriptive statistics for the independent and dependent variables. The CEO Compensation variable (X1) shows an average of 40.79816 and a standard deviation of 69.90852, with values ranging from a minimum of 0.130000 to a maximum of 332.4300. For CEO Managerial Ability (X2), the mean is 0.877680, with a standard deviation of 0.195416, and values spanning from 0.240000 to 1.000000. The CEO Tenure variable (X3) has an average of 13.83200, a standard deviation of 13.07468, and a range from 1.000000 to 51.00000.

The mediating variable, Debt-to-Equity Ratio (Z), has an average of 0.865760% with a standard deviation of 0.821053%, with values between -2.120000% and 5.370000%. Lastly, the dependent variable, Return on Assets (Y), has a mean of 0.071869 and a standard deviation of 0.100853, with values from -0.215730 to 0.607170.

**Regression Estimation Model**

Panel data combines both time series and cross-sectional data, allowing for a more robust regression analysis that addresses potential intercorrelation among independent variables, which can otherwise lead to inaccurate model estimations. Choosing the optimal model in panel data regression is essential to identify the most suitable estimation approach for the study. This involves three key tests: (1) the Chow Test, which compares Common Effect and Fixed Effect models, (2) the Hausman Test, which helps decide between Fixed Effect and Random Effect models, and (3) the Lagrange Multiplier (LM) Test, which evaluates the best fit between Random Effect and Common Effect models.

As previously described, this study uses the path analysis method. Thus, this study has 2 multiple structural regression models, namely Model I (Multiple Linear Regression Analysis with X1, X2, and X3 as independent variables and Z as dependent variables) and Model II (X1, X2, X3, and Z as independent variables and Y as dependent variables**).**

**Chow Test**

The Chow test is applied to determine whether the Common Effect Model or the Fixed Effect Model best fits the data. The hypotheses for the Chow test are as follows:

**H0**: The appropriate model is the Common Effect Model.

**H1**: The appropriate model is the Fixed Effect Model.

In this study, a 5% significance level (alpha) is used. The decision rule is as follows: if the cross-section Chi-square probability (Prob.) ≤ 0.05, we reject H0 and accept H1, indicating that the Fixed Effect Model is more suitable. Conversely, if the Chi-square probability (Prob.) > 0.05, we accept H0 and select the Common Effect Model. The results of the Chow Test are shown below:

**Table 2Chow Model I Test Results**

|  |  |  |
| --- | --- | --- |
| Redundant Fixed Effects Tests |  |  |
| Equation: FEM1 |  |  |  |
| Test cross-section fixed effects |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Effects Test | Statistic | d.f. | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section F | 4,449698 | (24,97) | 0,0000 |
| Cross-section Chi-square | 92,799070 | 24 | 0,0000 |
|  |  |  |  |  |
|  |  |  |  |  |

As shown in Table 2, the cross-section Chi-square probability for Model I is 0.0000 (≤ 0.05), leading to the rejection of H0 and acceptance of H1. Therefore, the Fixed Effect Model is selected for Model I. Following this, the Hausman test is performed to evaluate the best model between the Fixed Effect and Random Effect Models.

**Table 3**

**Chow Model II Test Results**

|  |  |  |
| --- | --- | --- |
| Redundant Fixed Effects Tests |  |  |
| Equation: FEM2 |  |  |  |
| Test cross-section fixed effects |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Effects Test | Statistic | d.f. | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section F | 2,741112 | (24,96) | 0,0003 |
| Cross-section Chi-square | 65,241316 | 24 | 0,0000 |
|  |  |  |  |  |
|  |  |  |  |  |

Similarly, for Model II, the cross-section Chi-square probability is 0.0000 (≤ 0.05), leading to the rejection of H0 in favor of H1, meaning that the Fixed Effect Model is the preferred choice. Consequently, model selection continues with the Hausman test to determine the best fit between the Fixed Effect Model and the Random Effect Model for this study.

**Uji Hausman**

The Hausman test is utilized to determine the most suitable model between the Random Effect Model and the Fixed Effect Model. The hypotheses in the Hausman test are as follows:

**H0**: The Random Effect Model is appropriate.

**H1**: The Fixed Effect Model is appropriate.

This study applies a 5% significance level. The decision criteria are as follows: if the probability (Prob.) of the cross-section random effect is ≤ 0.05, H0 is rejected in favor of H1, indicating that the Fixed Effect Model should be chosen. Conversely, if the probability (Prob.) of the cross-section random effect is > 0.05, H0 is accepted, selecting the Random Effect Model as more suitable. The Hausman test results are as follows:

**Table 4**

**Hausman Model I Test Results**

|  |  |
| --- | --- |
| Correlated Random Effects - Hausman Test |  |
| Equation: REMM1 |  |  |
| Test cross-section random effects |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 1,920814 | 3 | 0,5890 |
|  |  |  |  |  |
|  |  |  |  |  |

According to Table 4, the cross-section random effect probability is 0.5890 (> 0.05), supporting H0 and indicating that the Random Effect Model is preferred for Model I. Subsequently, the Lagrange Multiplier test is conducted to further assess the best choice between the Common Effect Model and the Random Effect Model.

**Table 5**

**Hausman Model II Test Results**

|  |  |
| --- | --- |
| Correlated Random Effects - Hausman Test |  |
| Equation: REM2 |  |  |  |
| Test cross-section random effects |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 6,973034 | 4 | 0,1373 |
|  |  |  |  |  |
|  |  |  |  |  |

Similarly, Table 5 shows a cross-section random effect probability of 0.1373 (> 0.05), supporting H0 for Model II. Therefore, the Random Effect Model is selected for Model II. Following this, the Lagrange Multiplier test is used to further confirm the optimal model choice between the Common Effect Model and the Random Effect Model.

**Lagrange Multiplier Test (LM)**

The Lagrange Multiplier (LM) test is applied to determine the most appropriate model between the Common Effect Model and the Random Effect Model. The hypotheses for the LM test are as follows:

**H0**: Common Effect Model is suitable.

**H1**: Random Effect Model is suitable.

This study uses a significance level (alpha) of 5%. For decision-making, if the probability (Prob.) value for the cross-section random effect is ≤ 0.05, H0 is rejected in favor of H1, indicating that the Random Effect Model is selected. If the probability (Prob.) value is > 0.05, H0 is accepted, indicating that the Common Effect Model is preferred.

The LM test results are as follows:

|  |
| --- |
| Lagrange Multiplier Tests for Random Effects |
| Null hypotheses: No effects |  |
| Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided |
|         (all others) alternatives |  |
|  |  |  |  |
|  |  |  |  |
|  | Test Hypothesis |
|  | Cross-section | Time | Both |
|  |  |  |  |
|  |  |  |  |
| Breusch-Pagan |  37,67580 |  1,512764 |  39,18856 |
|  | (0,0000) | (0,2187) | (0,0000) |

**Table 6**

 **Hasil Uji Lagrange Multiplicateur Modèle I**

In Table 6, the probability for the Breusch-Pagan test across both dimensions is 0.0000 (≤ 0.05), leading to the rejection of H0. Thus, the Random Effect Model is preferred for Model I based on the LM test results.

**Table 7**

**Model II Lagrange Multiplier Test Results**

|  |
| --- |
| Lagrange Multiplier Tests for Random Effects |
| Null hypotheses: No effects |  |
| Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided |
|         (all others) alternatives |  |
|  |  |  |  |
|  |  |  |  |
|  | Test Hypothesis |
|  | Cross-section | Time | Both |
|  |  |  |  |
|  |  |  |  |
| Breusch-Pagan |  10,22207 |  0,118806 |  10,34087 |
|  | (0,0014) | (0,7303) | (0,0013) |

Similarly, Table 7 shows a probability of 0.0013 (≤ 0.05) for Model II, prompting the rejection of H0. Hence, according to the LM test, Model II also selects the Random Effect Model as the most suitable.

**Model Selection Results**

The results of the three model tests indicate that both Model I (Multiple Linear Regression Analysis) and Model II (Moderated Regression Analysis or MRA) align as follows:

1. Chow Test: This test, which compares the Common Effect Model and the Fixed Effect Model, suggests that the Fixed Effect Model is more suitable for estimating the regression equation.
2. Hausman Test: This comparison between the Fixed Effect Model and the Random Effect Model points to the Random Effect Model as a more appropriate choice for the regression estimation.
3. Lagrange Multiplier Test: In evaluating the Common Effect Model against the Random Effect Model, the test indicates that the Random Effect Model is the preferable option for this regression analysis.

Based on these findings, where both the Hausman and Lagrange Multiplier tests favor the Random Effect Model, it can be concluded that the most suitable approach for this research, in both Model I and Model II, is the Random Effect Model.

According to Gujarati and Porter (2009), in EViews, the estimation model using the GLS method is specifically the Random Effect Model, which produces normally distributed residuals and satisfies the normality test. The Random Effect Model also meets the assumptions for multicollinearity and autocorrelation, as it avoids linear relationships and autocorrelation among independent variables. Furthermore, this model shows variations in residuals that pass the heteroscedasticity test. Given the selection of the Random Effect Model for this study, no further classical assumption tests are conducted (Gujarati, D., & Porter, D. Basic Econometrics (Translation). Salemba Empat, Jakarta, 2009).

**Results of Panel Data Regression Analysis**

The selection process between Model I and Model II, evaluated through the Chow test, Hausman test, and Lagrange Multiplier test, concludes that the Random Effect Model is the most suitable parameter estimation method for the panel data in this study. Consequently, hypothesis testing in this research is based on the Random Effect Model, with the following outcomes:

1. Structural Equation Model

The results of the panel data regression analysis for Model I using the Random Effect Model are presented below:

**Table 8**

**Panel Data Regression Analysis Random Effect Model Model I**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: Z |  |  |
| Method: Panel EGLS (Cross-section random effects) |
| Date: 08/04/24 Time: 19:17 |  |  |
| Sample: 2018 2022 |  |  |
| Periods included: 5 |  |  |
| Cross-sections included: 25 |  |  |
| Total panel (balanced) observations: 125 |  |
| Swamy and Arora estimator of component variances |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 1,947386 | 0,423164 | 4,601966 | 0,0000 |
| X1 | 0,000507 | 0,001163 | 0,435703 | 0,6638 |
| X2 | -1,372753 | 0,461139 | -2,976879 | 0,0035 |
| X3 | 0,007414 | 0,006565 | 1,129232 | 0,2610 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Effects Specification |  |  |
|  |  |  | S.D.   | Rho   |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 0,514017 | 0,4395 |
| Idiosyncratic random | 0,580429 | 0,5605 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Weighted Statistics |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Root MSE | 0,568514 |     R-squared | 0,074773 |
| Mean dependent var | 0,390265 |     *Adjusted R-Square*d | 0,051834 |
| S.D. dependent var | 0,593419 |     S.E. of regression | 0,577835 |
| Sum squared resid | 40,40108 |     F-statistic | 3,259579 |
| Durbin-Watson stat | 1,523988 |     Prob(F-statistic) | 0,023955 |
|  |  |  |  |  |
|  |  |  |  |  |

Z=1.947386+0.000507X

X1: CEO Compensation

X2: CEO Managerial

X3: CEO Tenure

Z: Debt to Equity Ratio

The regression analysis results provide important insights into the relationship between various factors and the DER Ratio (Z). The constant coefficient of 1.947386 suggests that when CEO Compensation (X1), CEO Managerial Ability (X2), and CEO Tenure (X3) are all set to zero, the DER will be 1.947386 units.

Furthermore, the positive coefficient for CEO Compensation (X1), which stands at 0.000507, indicates that an increase in CEO Compensation by one unit, while keeping the other variables constant, will lead to a slight rise of 0.000507 units in the DER. Conversely, the coefficient for CEO Managerial Ability (X2) is -1.372753, revealing that a one-unit increase in this variable will result in a significant decrease of 1.372753 units in the DER, highlighting the potential negative impact of managerial ability on financial leverage.

Finally, the coefficient for CEO Tenure (X3) is 0.007414, suggesting that as CEO Tenure increases by one unit, the DER will rise by 0.007414 units, indicating a positive relationship between the length of CEO service and the company's financial leverage.

This analysis sheds light on how these managerial factors influence the company's capital structure, particularly regarding debt levels in relation to equity:

**Table 9**

 **Panel Data Regression Analysis Random Effect Model Model II**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: Y |  |  |
| Method: Panel EGLS (Cross-section random effects) |
| Date: 08/04/24 Time: 19:18 |  |  |
| Sample: 2018 2022 |  |  |
| Periods included: 5 |  |  |
| Cross-sections included: 25 |  |  |
| Total panel (balanced) observations: 125 |  |
| Swamy and Arora estimator of component variances |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0,058243 | 0,054005 | 1,078472 | 0,2830 |
| X1 | -5,71E-05 | 0,000140 | -0,407748 | 0,6842 |
| X2 | 0,057326 | 0,056181 | 1,020384 | 0,3096 |
| X3 | -0,000319 | 0,000783 | -0,407703 | 0,6842 |
| Z | -0,034582 | 0,011651 | -2,968200 | 0,0036 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Effects Specification |  |  |
|  |  |  | S.D.   | Rho   |
|  |  |  |  |  |
|  |  |  |  |  |
| Cross-section random | 0,047034 | 0,2611 |
| Idiosyncratic random | 0,079120 | 0,7389 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Weighted Statistics |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Root MSE | 0,078476 |     R-squared | 0,099139 |
| Mean dependent var | 0,043206 |     *Adjusted R-Square*d | 0,069111 |
| S.D. dependent var | 0,083014 |     S.E. of regression | 0,080094 |
| Sum squared resid | 0,769812 |     F-statistic | 3,301493 |
| Durbin-Watson stat | 1,595825 |     Prob(F-statistic) | 0,013223 |
|  |  |  |  |  |
|  |  |  |  |  |

Based on Table 9 the regression equation of the Model II panel data in this study is as follows:

Y = 0,058243 - 0,0000571 X1 + 0,057326 X2 - 0,000319 X3 - 0,034582 Z

Information:

X1: CEO Compensation

X2: CEO Managerial

X3: CEO Tenure

Z: Debt to Equity Ratio

Y: Return of Assets

The regression analysis reveals that the constant coefficient is 0.058243, indicating that when the independent variables, namely CEO Compensation (X1), CEO Managerial Ability (X2), CEO Tenure (X3), and DER (Z) are all zero, the dependent variable, Return on Assets (Y), will be 0.058243 units. The coefficient for CEO Compensation (X1) is -0.0000571, suggesting that an increase in CEO Compensation by one unit, while keeping other variables constant, will lead to a slight decrease of -0.0000571 in ROA. In contrast, the coefficient for CEO Managerial Ability (X2) is 0.057326, indicating that a one-unit increase in managerial ability will result in an increase of 0.057326 in ROA, highlighting the positive impact of effective leadership. However, the coefficient for CEO Tenure (X3) is -0.000319, which means that as CEO Tenure increases by one unit, the ROA will decline by 0.000319 units, suggesting potential diminishing returns over time. Lastly, the DER (Z) has a coefficient of -0.034582, signifying that an increase in the DER by one unit will decrease the ROA by 0.034582, indicating that higher debt levels may adversely affect asset returns. This analysis underscores the complex interplay between CEO characteristics and financial performance indicators.

**Determination Coefficient Test (Adjusted R-Square)**

The Adjusted R-Square, or determination coefficient, serves as a valuable metric for evaluating the extent to which the independent variables account for the total variation in the dependent variable within a regression model. This coefficient not only indicates the percentage of variance in the dependent variable that can be attributed to the independent variables but also provides insight into the model's effectiveness in explaining this variability. The following is the result of the calculation of the determination coefficient of the Model I and Model II regression models based on the selected model, namely the Random Effect Model.

|  |  |  |
| --- | --- | --- |
|  | R-squared (R2) | *Adjusted R-Square*d |
| Model I  | 0,074773 | 0,051834 |
| Model II  | 0,099139 | 0,069111 |

**Table 6
 Determination Coefficient Test (*Adjusted R-Square*)**

Based on the results in Table 10, the value of Adjusted R-Squared Model I was obtained as 0.051834, which shows that 5.1834% of the variable Debt to debt-to-equity ratio can be explained by the variables CEO Compensation, CEO Managerial, and CEO Tenure, while the remaining 94.8166% explained by other factors outside the variables used in this study. The value of Model II was obtained as 0.069111, which shows that 6.9111% of the variable's Return on Assets can be explained by the variables CEO Compensation, CEO Managerial, CEO Tenure, and Debt to Equity Ratio, while the remaining 93.0889% explained by other factors outside the variables used in this study.

**Simultaneous Test (Test F)**

The F test aims to evaluate whether the regression model built as a whole has a significant ability to explain dependent variables. This test helps determine whether independent variables collectively contribute to dependent variables in the regression model. This F test is very important in regression analysis because it provides initial insight into whether the regression model created is feasible to be used in further analysis or not, the hypothesis of this test is:

H0: The independent variable simultaneously does not affect the dependent variable.

H1: Independent variables simultaneously affect dependent variables.

In the F test, a significance level of 5% is used for decision-making. If the probability value (Prob) is less than 0.05 (Prob < 0.05), we reject the null hypothesis (H0) and accept the alternative hypothesis (Ha), indicating that the independent variables have a simultaneous effect on the dependent variable. Conversely, if the probability value is greater than 0.05, we fail to reject H0. Below is a table presenting the results of the F test calculations for both Model I and Model II, based on the chosen Random Effect Model.

|  |  |  |
| --- | --- | --- |
|  | F-statistic | Prob(F-statistic) |
| Model I | 3,259579 | 0,023955 |
| Model II | 3,301493 | 0,013223 |

**Table 7** **Simultaneous Test (Test F)**

As indicated in Table 11, the probability value (Prob (F-statistic)) for Model I is 0.023955, which is less than the 0.05 threshold. This result leads us to reject the null hypothesis (H0) in favor of the alternative hypothesis (H1), confirming that at a 5% significance level, CEO Compensation, CEO Managerial Ability, and CEO Tenure collectively exert a significant influence on the DER. Similarly, for Model II, the probability value (Prob (F-statistic)) is 0.013223, also below the 0.05 mark. Thus, we reject H0 and accept H1, indicating that at the same significance level, CEO Compensation, CEO Managerial Ability, CEO Tenure, and Debt to Equity Ratio together have a significant impact on Return on Assets.

**Direct Effect Hypothesis Testing (t-Test)**

The t-test is designed to assess the impact of independent variables on dependent variables in a partial manner. In this study, we conducted hypothesis testing using a one-tailed approach, with the following statements of the hypotheses:

**H0:** The independent variable has no positive effect on the dependent variable.

**H1:** The independent variable has a positive effect on the dependent variable.

In the one-tailed t-test, the decision-making criterion is that if the probability value (Prob) for one tail is less than 0.05 and the coefficient is positive, we reject H0 and accept H1. This indicates that the independent variable exerts a positive and significant influence on the dependent variable. Conversely, if these conditions are not met, we would not reject H0. The results of the hypothesis testing in this study are as follows:

**Table 8
Results of Direct Effect Hypothesis Testing (t-Test)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Hipotesis | Koefisien | t-Statistic | Prob. Two-tailed | Prob. One-tailed |
| Model I | H1: X1 🡪 Z | 0,000507 | 0,435703 | 0,6638 | 0,3319 |
| H2: X2 🡪 Z | -1,372753 | -2,976879 | 0,0035 | 0,0018 |
| H3: X3 🡪 Z | 0,007414 | 1,129232 | 0,2610 | 0,1305 |
| Model II | H4: X1 🡪 Y | -0,0000571 | -0,407748 | 0,6842 | 0,3421 |
| H5: X2 🡪 Y | 0,057326 | 1,020384 | 0,3096 | 0,1548 |
| H6: X3 🡪 Y | -0,000319 | -0,407703 | 0,6842 | 0,3421 |
| H7: Z 🡪 Y | -0,034582 | -2,968200 | 0,0036 | 0,0018 |

Based on Table 12 above, it can be explained as follows:

**1st Hypothesis Test (H1)**

The partial test (t-test) results for the X1 → Z variable indicate a positive coefficient of 0.000507 with a one-tailed probability value (Prob) of 0.3319 (≥0.05). This suggests that CEO Compensation has a positive, yet statistically insignificant, relationship with the DER. Consequently, the hypothesis (H1) stating that "CEO Compensation positively affects the DER" is not supported by the data and is thus rejected.

**2nd Hypothesis Test (H2)**

The partial test (t-test) results for the X2 → Z variable reveal a negative coefficient of -1.372753 with a one-tailed probability value (Prob) of 0.0018 (<0.05). This indicates that CEO Managerial Ability has a negative and statistically significant impact on the DER, suggesting that higher managerial ability of the CEO reduces the DER. Thus, the hypothesis (H2) proposing that "CEO Managerial Ability has a positive effect on the DER" is rejected, as the data supports an opposite effect.

**3rd Hypothesis Test (H3)**

The partial test (t-test) results for the X3 → Z variable show a positive coefficient of 0.007414 with a one-tailed probability value (Prob) of 0.1305 (≥0.05). This indicates that CEO Tenure has a positive but statistically insignificant relationship with the DER. Therefore, the hypothesis (H3) proposing that "CEO Tenure has a positive effect on the DER" is rejected, as the data does not support this hypothesis.

**4th Hypothesis Test (H4)**

The partial test (t-test) results for the X1 → Y variable show a negative coefficient of 0.0000571 with a one-tailed probability value (Prob) of 0.3421 (≥0.05). This suggests that CEO Compensation does not have a positive effect on ROA. Thus, the hypothesis (H4), which proposes that "CEO Compensation has a positive effect on ROA," is rejected, as the data does not support this assumption.

**5th Hypothesis Test (H5)**

The partial test (t-test) results for the X2 → Y variable reveal a positive coefficient of 0.057326 with a one-tailed probability value (Prob) of 0.1548 (≥0.05). This outcome indicates that CEO Managerial Ability has a positive relationship with ROA, although it is not statistically significant. Therefore, the hypothesis (H5) suggesting that "CEO Managerial Ability has a positive effect on ROA" is rejected, as the data does not support this hypothesis.

**6th Hypothesis Test (H6)**

The partial test (t-test) results for the X2 → Y variable reveal a positive coefficient of 0.057326 with a one-tailed probability value (Prob) of 0.1548 (≥0.05). This outcome indicates that CEO Managerial Ability has a positive relationship with ROA, although it is not statistically significant. Therefore, the hypothesis (H5) suggesting that "CEO Managerial Ability has a positive effect on ROA" is rejected, as the data does not support this hypothesis.

**7th Hypothesis Test (H7)**

The partial test (t-test) results for the Z → Y variable show a negative coefficient of -0.034582 with a one-tailed probability value (Prob) of 0.0018 (<0.05). This indicates that the DER has a significant negative effect on ROA. Therefore, the hypothesis (H7) that "DER has a positive effect on ROA" is rejected, as the data does not support this hypothesis.

**Uji Sobel Test**

According to Baron & Kenny (1986), "A mediating variable influences the relationship between independent and dependent variables." In this study, the mediation hypothesis test was conducted using the Sobel test, calculated via the Sobel test calculator on http://quantpsy.org/sobel/sobel.htm, developed by Sobel. With a 95% confidence interval, the hypothesis is supported if the absolute Sobel-test value exceeds 1.96 and the p-value is below 0.05. The mediation test results are as follows:

**Table 9
Output Results of Sobel Test Variable X1, Z, Y**

Referring to Table 13, the Sobel test results indicate a Sobel-test value of |-0.431|, which is ≤ 1.96, and a p-value of 0.666, which is ≥ 0.05. Based on these criteria, it can be concluded that the DER does not mediate the effect of CEO Compensation on Return on Assets. Therefore, the eighth hypothesis (H8) in this study is not supported.

**Table 10** **Output Results of Sobel Test Variable X2, Z, Y**

As shown in Table 14, the Sobel test yielded a test value of 2.102, exceeding the threshold of 1.96, and a p-value of 0.035, which is greater than 0.05. Based on these results, it can be concluded that the DER serves as a mediating factor in the relationship between CEO Managerial Ability and ROA. Therefore, the ninth hypothesis (H9) in this study is supported. The mediating effect of the DER Ratio is considered partial, as CEO Managerial Ability continues to have a direct impact on Return on Assets even in the absence of this mediating variable.

**Table 11
Output Results of Sobel Test Variable X3, Z, Y**

Referring to Table 15, the Sobel test results indicate a test value of |-1.055|, which is within the threshold of 1.96, and a p-value of 0.291, exceeding 0.05. Based on these criteria, it can be concluded that the DER does not mediate the effect of CEO Tenure on Return on Assets. Therefore, the tenth hypothesis (H10) in this study is not supported.

**Conclusion**

The study found that CEO Compensation has no positive effect on DER and ROA, which means that the compensation received by CEOs does not directly increase the DER or the effectiveness of using assets to generate profits. CEO Managerial Ability shows a negative effect on DER, but no positive effect on ROA, indicating that CEO Managerial Ability can reduce a company's dependence on debt but does not directly improve the company's performance in generating profits from assets. CEO Tenure, or the length of the CEO's tenure, also does not have a positive influence on DER or ROA.

Moreover, the findings reveal that the DER negatively impacts ROA, indicating that an increase in the DER leads to a decline in the company's profitability. While DER does not act as a mediator in the relationship between CEO Compensation and CEO Tenure on ROA, it fully mediates the effect of CEO Managerial Ability on ROA. This suggests that a CEO's managerial skills exert a direct influence on ROA, regardless of DER's presence, whereas the effects of CEO Compensation and Tenure do not demonstrate the same significance.

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