THE IMPACT OF ADMINISTRATIVE FORTIFICATION ON THE LIQUIDITY OF STOCKS IN COMPANIES LISTED IN THE IRAQI MARKET FOR SECURITIES

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ABSTRACT

This research aims to investigate the impact of administrative fortification mechanisms on the financial performance of companies listed on the Iraq Stock Exchange. The study involves a random sample of companies, and a cross-sectional time series data model will be used to analyze the data.

The study involved analyzing cross-sectional time series data using two models - a fixed effect model and a random effect model.

The study found that the independence of the Board of Directors x1, Administrative Ownership x2, the dual role of the Director x3, and the Term of CEO x4 are independent variables that have a significant impact on financial performance variables with a confidence factor of 95%. This was concluded by applying both the fixed effect model and the random effect model. The research aims to prove the validity of three hypotheses. The first hypothesis is that there is a fundamental relationship between administrative fortification mechanisms and the rate of return on assets, with a confidence factor of 95%. The second hypothesis is that there is an essential relationship between administrative immunization mechanisms and the rate of return on shareholders' equity, also with a confidence factor of 95%. The third hypothesis is that there is a fundamental relationship between administrative fortification mechanisms and earnings per share, which was proven correct with a confidence factor of 95%.

Keywords: Administrative Fortification Mechanisms, Stock Liquidity.

INTRODUCTION

Agency theory indicates that the facility is the link between owners and managers; Because it focuses on the potential. Conflict of interest resulting from asymmetry of information between the two parties to the contract leads to this relationship.

There are two types of agency problems. The first type is a conflict of interest between owners and managers, which requires the availability of a mechanism to reconcile the interests of the two parties, while the second type focuses on the conflict of interests between them owners and minority shareholders, which occur when ownership and control are placed at the disposal of a few large owners.

Managers may seek to protect their interests and maintain control over the company by owning a large number of shares, according to the hypothesis of managerial entrenchment. Additionally, they may want to increase their control to ensure security and maintain their positions. However, this can lead to avoiding accountability from internal and external stakeholders, which can increase the risk of a stock price collapse.

The concept of stock liquidity refers to the ability to trade securities at a low cost with little impact on prices. Liquidity is an indicator of the quality of the financial market and adds

greater value to short-term trading activities compared to long-term trading. It also gives investors the flexibility necessary to sell investments when needed.

Studies related to certain administrative fortification mechanisms and their impact on inventory liquidity have produced conflicting results. Therefore, it is important to understand the factors that may affect inventory liquidity, particularly when administrative fortification mechanisms are taken into account. It is also crucial to evaluate the significance of these factors concerning the enterprise's value.

The Problem of the Research :

The collapse of stock prices is a sudden drop in a company's share price, which can lead to the destruction of shareholders' wealth. This can threaten the stability of the financial market and affect the financial sector's ability to serve the real economy, hindering sustainable and stable economic growth for the country. In light of this, we can propose the following research question: Do administrative immunization mechanisms affect stock liquidity, and to what extent does this effect differ in relation to the risks of a collapse in stock prices?

The Importance of the Research:

At both scientific and practical levels, it is of interest to test the effect of managerial immunization mechanisms on stock liquidity risk.

1-Although administrative fortification is a crucial component of corporate governance, it has not been given adequate attention in previous studies.

2-The current study highlights the necessity of gaining a deeper understanding of the nature of administrative measures that strengthen a company's financial resources and their implications for inventory liquidity, both in theory and practice.

The significance of this study lies in the conflicting and inconsistent outcomes of prior researches pertaining to the analysis and interpretation of the possible consequences of certain mechanisms on enterprise value and related factors.

3- The expected outcome of this study is to aid stakeholders in making better investment decisions by understanding and focusing on the positive or negative influence of administrative immunization mechanisms on stock liquidity.

The Aims of the Research:

This research aims to test the impact of managerial immunization mechanisms on stock liquidity:

1-Researching the impact of administrative immunization mechanisms on stock liquidity in the Iraqi Stock Exchange.

2-The study will evaluate the financial performance of companies by examining three dependent variables - the rate of return on assets, rate of return on shareholders' equity, and earnings per share. The study will also consider control variables such as company size, profitability, and financial leverage. The research assumes that these factors impact a company's overall financial performance.

The Hypotheses of The Research:

1- There is a fundamental correlation between administrative fortification mechanisms and the rate of return on assets.

2-There is a clear relationship between immunization mechanisms and the return on shareholders' equity.

3- The earnings per share are fundamentally linked to the mechanisms of administrative fortification.

The Terms of the Research:

1 - **Administrative fortification** refers to a set of strategies that some managers may adopt in order to increase their control over a company and maximize their personal gain, rather than acting in the best interests of the shareholders. This involves gaining powers that exceed their actual role, and using their position for personal benefit. As stated by Abdul Al-Moneim in 2021, this practice can potentially harm the company's success and the interests of its stakeholders.

2- **Stock liquidity** refers to the ability of financial market participants to execute large volume transactions without significantly affecting the price of the security. This term is also used to describe the process of converting non-cash generating property or assets into a vital internal source of money generation. Such conversion supports higher trading volume and further development. Trading Strategies (Daly, 2017) can be used to achieve this.

The Theoretical Framework :

The first topic: Managerial Entrenchment:

which is a significant manifestation of agency problems. Administrative entrenchment mechanisms provide managers with more freedom of choice, but they also limit the effectiveness of control mechanisms. As a result, managers gain control over decision-making and can choose the facility's accounting policies to ensure their own benefits, which leads to administrative fortification. This occurs when managers gain power and authority that allows them to exploit the organization's resources for their interests at the expense of stakeholders (Abdel Moneim, 2021).

Administrative fortification is a concept that has gained significant attention in recent decades due to its importance in financial theories and psychology. It refers to a situation where a manager becomes entrenched in their position and overestimates their knowledge and experience. This can lead to them promoting their own interests over the interests of shareholders. (Abu Salem and Alwan, 2018).

Managerial entrenchment occurs when a manager gains more power by leveraging the interests of the company to obtain benefits for themselves. They use a set of strategies and exploit weaknesses in the company's control environment to increase their role in managing the company, establish themselves within the organization, and make it difficult to remove them. This lack of accountability can lead to a lack of confidence among investors and creditors towards the directors.

Putri, Y. K. W., and Sujana, I. K. (2018) have studied this phenomenon and its impact on the organization.

Managerial entrenchment refers to the perception that managers possess more power and influence compared to other stakeholders in the organization. Administrative entrenchment, on the other hand, pertains to the inability of managers to adhere to work rules and procedures, control mechanisms, and fortify themselves against pressures that may come from internal or external corporate governance mechanisms. The quiet life hypothesis suggests that managerial entrenchment makes managers less ambitious and risk-averse, leading them to avoid making difficult decisions or investments that entail significant risks (Mohamed, 2023). Although administrative entrenchment can be a manifestation of agency problems and conflicts of interest, some believe that it can help align the interests of management and shareholders. Administrative entrenchment is not always a sign of management inefficiency as it can help avoid losses and add value to the facility by investing in profitable projects that involve greater risk. It can also help maintain the facility's relationships with others to ensure its survival and growth. Managers may also benefit from administrative fortification as it helps them protect their decisions from effective interference by various oversight mechanisms. (Kokeno. S. O. and Muturi W. 2016)

However, managers may use administrative fortification to achieve personal interests that harm the interests of other stakeholders, particularly shareholders. Therefore, administrative entrenchment is an opportunistic strategy that should be addressed by activating the oversight role of internal and external control mechanisms to reduce its negative effects.

Administrative fortification may have positive effects on the company and its value, based on the hypothesis of convergence of interests. The administrative fortification strategy goes through three stages during which managers try to neutralize the restrictions imposed on them by other parties:

1 - The First Stage: Evaluation of Managers:

This stage involves managers striving to improve project performance and making profitable investment decisions to increase shareholder wealth. During this stage, managers are under high supervision, and they aim to form a good reputation, which helps to neutralize various control mechanisms.

2 - The Second Stage: Reducing Supervision

This stage, after managers have gained appreciation from shareholders and are sure of their value and importance to them, they begin to reduce the effectiveness of various control mechanisms by changing oversight structures, such as the structure of the Board of Directors. This can be achieved by nominating internal members or accrediting their presence in the company's senior management levels (Abu Salem and Alwan, 2018).

3-The Third Stage: Use of the Force

Managers are aware that replacing them would be too costly for the owners and result in reorganization expenses. This gives them the ability to make decisions that can benefit themselves rather than maximizing the wealth of the owners. This was highlighted by Muhammad in 2023.

Moving on to the second topic - stock liquidity. The stock market is a fundamental aspect of economic development. It enables reinvestment of funds into new service and production projects, leading to more efficient allocation of capital to these projects. This, in turn, creates more job opportunities and contributes to higher economic growth rates. Furthermore, the stock market can provide a means for individuals with limited time and experience to save their money and effectively manage investments and direct them towards areas that support the economy and improve well-being, the stock market should have a variety of features (Farag,2019). One of the most important of these features is liquidity, which allows for quick and easy buying and selling of securities at a known price. However, during times of market uncertainty, liquidity can be reduced, leading to exaggerated price fluctuations (Kokeno. S. O. and Muturi W. 2016). To mitigate this, regulators seek to ensure a degree of liquidity and high levels of securities, which can make them more attractive to investors. The term liquidity has multiple uses in various financial and economic fields. Corporate liquidity specifically refers to a company's ability to meet short-term obligations while maintaining a reserve to counteract unforeseen events, such as increased payments or decreased cash inflows(Putri, Y. K. W., & Sujana, I. K. 2018).

Banks and financial institutions' liquidity refers to their ability to provide cash in the financial system. In the stock market, liquidity means how easily shares can be converted into cash. High liquidity means shares can be converted quickly, at the best prices, and at the lowest possible cost, which includes the commission and the difference in the purchase price from the selling price at any time (Daly, 2017). Liquidity in the stock markets is crucial for investors as they prefer to trade in markets with high liquidity to minimize the risks associated with trading. For instance, they may face a decline in the value of their shares, incur significant costs to exchange their shares, or miss alternative investment opportunities (Faraj, 2019).

- The Third Section: Applied Study and Testing of Hypotheses:

First: The research community and research variables:

The research relied on annual data for 30 random companies listed on the Iraq Stock Exchange Finance, excluding banks and insurance companies, during the period from 2015 to 2019.

The data is analyzed using some statistical methods and tests to explain the relationship between mechanisms

Administrative fortification and stock liquidity in companies listed on the Iraq Stock Exchange.

The following table displays the search variables and the symbol accompanying each variable.

Table (1): Research variables and the symbol accompanying each variable.

Variable Symbol	Variable Type	Variables
	Independent Variables	Administrative fortification mechanisms Independent
X1	independent	Independence of the Board of Directors
X2	independent	Administrative ownership

X3	independent	Dual role of manager
X4	independent	The term of office of the CEO
	Dependent Variables	Control variables
X5	independent	Company size
X6	independent	Company profitability
X7	independent	Leverage Financial performance
	Dependent Variables	
Y1	Dependent	Rate of return on assets
Y2	Dependent	Rate of return on equity
Y3	Dependent	Earnings per share

Second: Research methodology and method:

The study relies on the deductive approach to measure the extent of the impact of administrative fortification mechanisms on the liquidity of shares in companies listed on the Iraqi Stock Exchange, by applying the cross-sectional time series data model.

1 - Panel Data Regression Model:

Cross-sectional time series data is formed by collecting observations across time series for a group of cross-sectional units, such as countries, companies, and individuals. This type of data combines the characteristics of both cross-sectional data and time series data, allowing the study of the behavior of multiple items or cross-sectional units over a single period, as well as the behavior of a single individual over a certain period of time.

2-Panel Data regression models for cross-sectional time series data and estimation methods:

The research involved studying and applying two models to analyze cross-sectional time series data: the fixed effect model and the random effect model.

-The Fixed Effect Model:

the fixed effect model can be formulated as:

$$Y_{it} = a_o + \sum_{d=2}^{n} \cdot = a_d \, D_d + \sum_{j=1}^{k} \beta 0 \, x \, j(it) + V_i + e_{it} \qquad i=1,2,3,\ldots\ldots n$$

-The Random Effect Model:

The random effect model can be formulated as:

$$Y_{it} = M + \Sigma \sum_{j=1}^{k} \beta 0 \, X_{J(it)} + + V_i + e_{it} \qquad i=1,2,3,\ldots\ldots n \qquad t=1,2,3\ldots t$$

Steps to apply the fixed effect model and the random effect model:

1. Apply both models to study the relationship between the independent variables and each of the dependent variables. Proceed separately by using the first control variable, which is the size of the company, to assess its individual effect on each dependent variable.

2. Apply both models to study the relationship between the independent variables and each of the dependent variables. Follow this by using the first control variable, which is financial leverage, to assess its individual effect on each dependent variable.

3. Apply both models to study the relationship between the independent variables and each of the dependent variables. Proceed individually by using the three control variables to assess their combined effect on each variable.

Third: Results of the statistical analysis:

1 – The Fixed Effect Model:

The table below presents the results of applying the fixed effect model to the first dependent variable, which is the rate of return on assets. The first part of the table shows the effect of company size, the second part displays company profitability, the third part presents the effect of financial leverage, and the last part presents the effect of the control variables.

Table 2: Fixed Effect of the First Dependent Variable

The effect of company size only X6			Y1 Financial performance
Probability value	Calculated T value	Regression coefficients	The variable
0.764	0.301	0.053	Constant
0.006	2.781	0.254	Independence of the Board of Directors X1
0.422	-0.805	0.040-	Administrative ownership X2
0.183	1.338	0.074	Manager role duality X3
0.470	-0.724	0.007-	The term of SEO X4
0.127	-1.536	-0.022	Company size x5
			Company profitability x6
			Leverage x7
	Change in coefficient of determination	The coefficient of determination	
	1.75%	1.75%	
	6.61%	8.36%	
Impact of company profitability only x7			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.491	0.691-	0.090	Constant
0.097	1.670	0.084	Independence of the Board of Directors X1
0.079	1.771-	0.044	Administrative ownership X2
0.525	0.638	0.049	Dual role of manager X3
0.509	0.662-	0.009	The term of office of the CEO X4
			Company size X5
0.000	6.490	0.074	Company profitability X6
			Financial leverage X7
	Change in coefficient of determination	The coefficient of determination	
	24.89%	24.89%	
	3.21%	28.09%	

Leverage effect only X8			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.089	-1.714	-0.173	Constant
0.005	2.855	0.265	Independence of the Board of Directors X1
0.341	-0.956	-0.047	Administrative ownership X2
0.130	1.523	0.085	Manager role duality X3
0.443	-0.769	0.008-	The term of SEO X4
			Company size x5
			Company profitability x6
0.662	-0.438	-0.002	Leverage x7
	Change in coefficient of determination	The coefficient of determination	
	0.010%	0.010%	
	6.960%	6.970%	
The influence of all controlling variables X5,X6,X7			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.646	0.461	0.073	Constant
0.104	1.634	0.139	Independence of the Board of Directors X1
0.116	-1.582	-0.070	Administrative ownership X2
0.589	0.542	0.027	Manager role duality X3
0.511	-0.659	-0.006	The term of SEO X4
0.293	-1.056	-0.014	Company size x5
0.000	6.315	0.474	Company profitability x6
0.993	-0.009	0.000	Leverage x7
	Change in coefficient of determination	The coefficient of determination	
	25.67%	25.668%	
	3.00%	28.665%	

It is evident from the table that the independent variables, specifically the independence of the board of directors, have a statistically significant impact on the rate of return on assets. The probability values for all variables are greater than the 5% alpha significance level commonly used in social research, providing statistical evidence of the importance of these independent variables on the dependent variable.

The independent variable, independence of the board of directors (X1), does not have a significant effect when used with company size (X5) and leverage (X7), but it does have a

significant effect when used with all three variables. When applying these models to each dependent variable, the research yields the following summary of results:

Table (3): Results of applying the fixed effect model

Rate of return on assets Y1				
X5, X6, X7	The financial leverage X7	Company profitability X6	Company size X5	
28.67%	6.97%	28.09%	8.36%	The coefficient of determination
Rate of Return on Equity Y2				
15.84%	8.93%	15.80%	9.12%	The coefficient of determination
Earnings per share Y3				
9.28%	7.41%	8.98%	7.47%	The coefficient of determination

It is evident from the preceding table that the coefficient of determination for each model was highest when all three control variables were included simultaneously.

2 - The Random Effect Model:

The table below presents the results of applying the random effect model to the first dependent variable (1), which is the rate of return on assets. The first part of the table shows the effect of company size, the second part shows the effect of company profitability, the third part shows the effect of financial leverage, and the last part shows the effect of the three control variables. The random effect model was applied to each dependent variable.

Table (4): Random effect of the first dependent variable, rate of return on assets

The effect of company size only X6			Y1 Financial performance
Probability value	Calculated T value	Regression coefficients	The variable
0.016	2.41	0.103	Constant
0.482	-0.7	0.238	Independence of the Board of Directors X1
0.265	1.11	-0.038	Administrative ownership X2
0.638	-0.47	0.068	Manager role duality X3
0.200	-1.28	-0.005	The term of SEO X4
0.591	0.54	-0.026	Company size x5
			Company profitability x6
			Leverage x7

	Change in coefficient of determination	The coefficient of determination	
	8.25%	8.25%	
	12.28%	20.53%	
Impact of company profitability only x7			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.671	-0.420	0.044	Constant
0.262	1.120	0.105	Independence of the Board of Directors X1
0.143	-1.470	-0.076	Administrative ownership X2
0.774	0.290	0.017	Dual role of manager X3
0.946	-0.070	-0.001	The term of office of the CEO X4
			Company size X5
0.000	7.500	0.565	Company profitability X6
			Financial leverage X7
	Change in coefficient of determination	The coefficient of determination	
	16.03%	16.03%	
	11.68%	27.71%	
Leverage effect only X8			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.130	-1.51	-0.163	Constant
0.011	2.55	0.251	Independence of the Board of Directors X1
0.369	-0.9	-0.048	Administrative ownership X2
0.181	1.34	0.081	Manager role duality X3
0.575	-0.56	-0.006	The term of SEO X4
			Company size x5
			Company profitability x6
0.673	-0.42	-0.002	Leverage x7
	Change in coefficient of determination	The coefficient of determination	
	6.94%	6.94%	
	17.18%	24.12%	
The influence of all controlling variables X5,X6,X7			Financial performance Y1
The probability value	Calculated T value	Regression coefficients	Variables
0.314	1.010	0.186	Constant

0.288	1.060	0.102	Independence of the Board of Directors X1
0.237	-1.180	-0.064	Administrative ownership X2
0.882	0.150	0.009	Manager role duality X3
0.995	-0.010	0.000	The term of SEO X4
0.133	-1.500	-0.024	Company size x5
0.000	7.500	0.568	Company profitability x6
0.868	-0.170	-0.001	Leverage x7
	Change in coefficient of determination	The coefficient of determination	
	15.34%	15.34%	
	25.56%	40.90%	

The independent variables (independence of the board of directors) all have probability values greater than the 5% alpha significance level used in social research. This is considered statistical evidence of the significant effect of these independent variables on the first dependent variable, which is the rate of return on assets (40.90%).

It is important to note that the control variable, company profitability X6, does not have a significant effect

Table (5): Results of applying the random effect model.

Rate of return on assets Y1				
X5, X6, X7	The financial leverage X7	Company profitability X6	Company size X5	
40.90%	24.12%	27.71%	20.53%	The coefficient of determination
Rate of Return on Equity Y2				
20.63%	9.95%	20.02%	9.10%	The coefficient of determination
Earnings per share Y3				
12.82%	19.49%	14.50%	16.52%	The coefficient of determination

To compare the fixed effect model and the random effect model, the researcher used the Akaike information criterion (AIC). This criterion is used to measure the relative quality of statistical models, and the model with the lowest AIC value is preferred. The table below shows the AIC values for each dependent variable, calculated using three control variables, and Can be calculated AIC by:

AIC = 2k −2ln(L)

k represents the number of estimated parameters, and the largest value of the model is denoted by L maximum value of the likelihood function for the model

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Table 6: AIC Values for Model Comparison

X5, X6, X7	Akaike's Information Criterion (AIC)
-22.717	Fixed effect model y1
63.599	Fixed effect model y2
870.497	Fixed effect model y3
-99.926	Random effect model y1
-38.771	Random effect model y2
777.098	Random effect model y3
-99.926	The Smallest value

It is evident from the previous table that the smallest value for the AIC criterion was 99.926 for the random effect model. The dependent variable has a rate of return on assets of y1, which is considered as statistical evidence of the suitability of this model to the data, taking into account that this model includes three control variables. By comparing the coefficient of determination of each model (fixed effect model and random effect model) with each variable, if the control variables are present, the researcher arrived at the following graph:
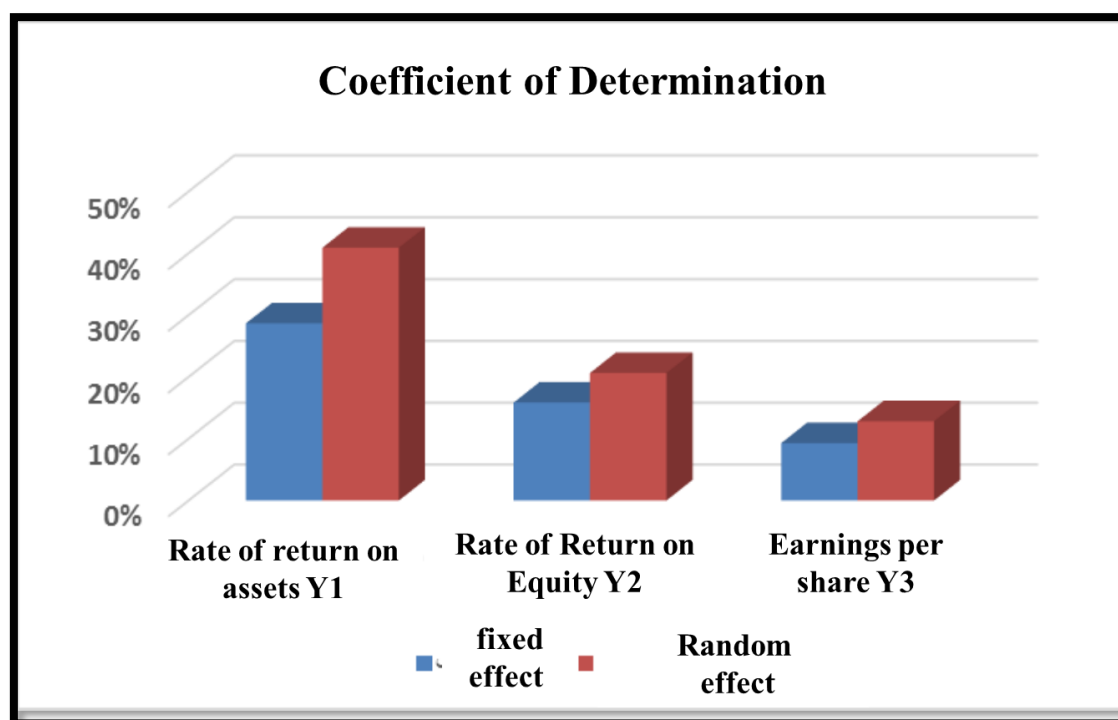

Figure (1): Comparison between the coefficient of determination for each model and each dependent variable

The analysis of the graph shows that the coefficient of determination for the random effect model is higher than that of the fixed effect model across all three dependent variables. This indicates statistical evidence supporting the greater explanatory power of the random effect model in explaining changes in the dependent variables compared to the fixed effect model. The study outlined the methods used to test the following hypotheses:

A. Validating the first hypothesis: "There is a fundamental relationship between the debt of administrative fortification mechanisms and the rate of return on assets" with a confidence level of 95%.

B. Validating the second hypothesis: "There is a fundamental relationship between administrative fortification mechanisms and the rate of return on shareholders' equity" with a confidence level of 95%.

C. Validating the third hypothesis: "There is a fundamental relationship between administrative fortification mechanisms and earnings per share" with a confidence level of 95%.

The Results and the Recommendations:

Results:

1. The research concluded that the independent variables (the independence of the Board of Directors x1, Administrative Ownership x2, the dual role of the Director x3, and the Term of CEO x4) have a 95% impact on the financial performance variables when both the fixed effect model and the random effect model are applied.

2. The first hypothesis, "There is a fundamental relationship between administrative fortification mechanisms and the rate of return on assets," was proven with a confidence factor of 95%.

3. The second hypothesis, "There is a fundamental relationship between administrative fortification mechanisms and the rate of return on shareholders' equity," was also proven with a confidence factor of 95%.

4. The third hypothesis, "There is a fundamental relationship between administrative fortification mechanisms and earnings per share," was proven with a confidence factor of 95%.

The Recommendations:

1. The researcher recommends studying the impact of administrative fortification mechanisms on banks and insurance companies, while considering other control variables.

2. The researcher recommends studying the impact of administrative fortification mechanisms on the quality of profits in companies.

3. The researcher recommends studying the impact of administrative fortification mechanisms and companies' adherence to social responsibility.

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