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CEO Duality, Managerial Ownership, Large Shareholders, and Firm Performance: An Analysis Using Panel Data Approaches

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Abstract

This paper aims to examine the impact of corporate governance mechanisms on the performance of the firm. The study's sample comprises 42 companies from industrial sectors listed on the Amman Stock Exchange (ASE). Data was collected from the yearly financial reports spanning from 2011 to 2021, resulting in 462 observations over the years. The study hypotheses were tested using Stata statistical software. The study utilizes multiple regression panel data analysis as the primary analytical method. The impacts were tested using Generalised Least Square (GLS) Random Effects models, a statistical technique. The research revealed that having a CEO duality and having large shareholders have a negative impact on a company's performance, whereas managerial ownership has a positive effect.

Keywords*: corporate governance, CEO duality, institutional ownership, ownership concentration, return on assets.*

Introduction

The concept of corporate governance has been a prominent issue on the policy agenda in developed market economies for over a decade, particularly for major companies. Corporate governance has gained significant attention in developing nations due to its potential to improve firm performance by attracting more capital investment from investors, particularly in cases where governance frameworks are weak (Lund & Pollman, 2021). Companies have long acknowledged that effective governance yields favorable financial outcomes for a company and enhances confidence. The corporate governance arrangements of a corporation have a significant impact on the firm's ability to respond to external circumstances that affect its performance. The management and control of a company are subjects of significant interest in specialized literature. There have been numerous studies and debates on the contribution of corporate governance to the performance of the entity (Al-Ahdal, W., 2020; Naciti, V., 2019; Pillai, R., 2018).

In developing countries, empirical research in this field is still in its early stages. This is likely due to a lack of data availability or a lack of emphasis on corporate governance practices within organizations. Researchers have conducted several studies to examine the correlation between corporate governance instruments and firm performance in emerging economies. For example, (Alodat, Salleh, Hashim, & Sulong 2022; Arora and Sharma (2016); Bhagat and Bolton 2019; Bhatt and Bhatt, 2017) have all contributed to this research. The primary objective of the corporate governance function is to establish ownership structures and corporate governance

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frameworks for companies, with the intention of ensuring that managers follow ethical standards and make decisions that are beneficial to shareholders. In their 1976 publication, Jensen and Meckling introduce agency theory, which argues that in many modern organizations, there is a separation between ownership and management. This division can lead to agency difficulties, such as the occurrence of excessive consumption and under-investment decisions.

Bhat et al. (2018) conducted an analysis to determine whether governance theory can be utilized to clarify the potential correlation between the existence of a corporate board and a company's performance. Corporate governance is a concept that encompasses a range of intricate indicators. These indicators are subject to significant measurement error due to the intricate relationship between corporate governance and firm performance indicators. This article aims to analyze the impact of several corporate governance factors, including CEO duality, large shareholders, and managerial ownership, on the performance variable of return on assets. Taking into account important control variables such as firm size and leverage. The variables are intentionally chosen based on the availability of data and the accuracy of measurement. This study enhances the existing body of knowledge by presenting empirical data from emerging economies regarding the influence of corporate governance measures and practices on company performance.

Literature Review and Hypothesis Development

Multiple studies have analyzed the influence of corporate governance on the performance of companies, yet researchers have not reached a consensus on this matter. They have employed diverse indicators of corporate governance mechanisms in an effort to gain a thorough comprehension of the advantages linked to implementing corporate governance regulations and mechanisms in recent decades. According to the recommendations made by Gaur and Kumar (2018), this is a methodical examination of existing literature that investigates the relationship between corporate governance and firm performance. Within a firm, ownership and management control are distinct entities. Several studies have analyzed the influence of corporate governance systems on the performance of firms in various countries with distinct characteristics, as evidenced by Udeh, Abiahu, and Tambou (2017). These studies have concluded that corporate governance can have both positive and negative effects on firm performance. This suggests that there is a lack of consistency in empirical research on the relationship between corporate governance and firm performance, which calls for additional investigation.

The Return on Assets (ROA) ratio is a valuable measure for assessing a company's operational efficiency as it quantifies the profits generated from invested capital assets (Epps & Cereola, 2008). Managers have direct responsibility for supervising business operations and ensuring the effective use of the company's resources. The return on assets metric allows users to assess how well a company's corporate governance structure promotes and motivates efficient management of the organization. The primary objective of operating a corporation is to generate income for the collective benefit of the common stockholders (Epps & Cereola, 2008).

CEO Duality

CEO duality facilitates a concentrated focus on the organization's long-term goals, reducing the impact of board members' interference and improving firm performance. This can be attributed to prompt decision-making by management, which is facilitated by the presence of explicit and transparent corporate leadership (Haniffa and Hudaib, 2006). CEO duality is an additional variable among the board of directors that can either exacerbate or alleviate the agency problem. Brickley et al. (1997) demonstrate that the presence of a CEO duality does not correlate with subpar performance; the CEO and chairman of the board perform distinct and crucial roles within companies (Doan, 2020). CEO duality may reduce the board's ability to effectively monitor the company's activities. This can result in additional conflicts of interest and ultimately lead to poor firm performance (Shao, 2019). Various studies have found that CEO duality has a negative effect on business performance, as indicated by different variables such as firms' return on equity, return on investment, stockholder return, and return on assets (Naseem, 2019; Wijethilake and Ekanayake, 2019). Bergh et al. (2016) and Mutlu et al. (2018) discovered that there is no relationship between CEO duality and performance in entrepreneurial companies. Also, Mubeen, Han, Abbas, & Hussain (2020) researchers conducted a study that revealed that companies with CEO duality demonstrate decreased financial performance. Several studies (e.g., Hsu et al., 2021; Khlif et al., 2021; Wang et al., 2019) have examined CEO duality using a dummy variable.

Two opposing viewpoints, agency theory and stewardship theory, influence the relationship between CEO duality and firm performance (Singh et al., 2018; Javeed et al., 2020). According to agency theory, having a CEO with dual powers leads to a stronger decision-making structure, which in turn leads to better firm performance (Youn et al., 2015). While some researchers argue that the presence of a CEO duality can have a detrimental effect on the performance of a company, other studies indicate that there is not a significant impact (Abbas et al., 2019b). Function segregation can improve managerial effectiveness and reduce agency costs (Naciti, V., 2019). The presence of a CEO duality may reduce the board's ability to effectively monitor the company's activities. This can result in additional issues related to the separation of ownership and control, ultimately leading to subpar performance by the firm (Shao, 2019). The findings indicate that the dual role of CEOs can result in a decline in the business monitoring system and contribute to variations in firm performance (Krause, 2017).

Hypothesis (1): *CEO duality will significantly impact the performance of Jordanian listed companies.*

Managerial Ownership

Ownership in developing nations is characterized by excessive concentration, resulting in limited shareholder rights due to inadequate or nonexistent controls under relevant regulations (La Porta et al., 1999; Shleifer and Vishny, 1997). Jensen and Meckling (2019) propose in the agency model that when managers have a bigger ownership stake in a company, their interests align more closely with those of the shareholders. As a result, agency costs decrease, and firm performance improves. The percentage of the company's shares held by the management, who actively participate in decision-making, is known as managerial ownership (Saleh, Zahirdin, & Octaviani, 2017).

Kao et al. (2018) conducted a study that utilized a dataset of publicly traded companies in Taiwan to examine the impact of ownership structure and board of directors on firm performance. The study utilized panel estimation and 2SLS techniques and discovered that the ownership structure has a strong association with firm value. Alabdullah (2018) and Mardnly et al. (2018) have conducted further research. Alabdullah (2018) conducted a study in Jordan to examine the relationship between ownership structure and firm performance. The researcher used the multiple regression method to analyze data from non-financial firms listed on the Amman Stock Exchange. The study revealed that managerial ownership has a positive impact on performance. Ciftci et al. (2019) conducted a study on 234 listed firms on Bursa Istanbul to investigate the relationship between the corporation's governance and its performance. ROA assessed the firm's performance. Managerial ownership directly influences firm performance. The researchers observed a positive correlation, and their results provide evidence that an increase in managerial ownership leads to a more pronounced alignment of interests between shareholders and managers. Therefore, handling the issue of agency trouble could potentially lead to favorable impacts on firm performance. Nuzula et al. (2017) examined how ownership structure impacts corporate governance and firm value in Indonesian companies. The study also explored how ownership structures could enhance trust and transparency. The ownership structure was assessed based on the proportions of institutional and management ownership. The results indicated that the ownership structure has a significant influence on both the firm's performance and its corporate governance measures.

Hypothesis (2): *managerial ownership will significantly impact the performance of Jordanian listed companies.*

Large Shareholders (Ownership Concentration)

The ownership concentration of a firm is a crucial aspect of corporate governance that has a direct impact on the firm's performance. The percentage of ownership represents the rights associated with it, for example, the entitlement to participate in voting and selecting individuals for the company's Board of Directors. These rights play a significant role in enhancing the corporate governance system and ultimately improving the firm's performance (Yasser & Al Mamun, 2017). Ownership concentration refers to the proportion of shares held by a select group of significant investors. According to agency theory, ownership concentration is seen as an important aspect of an effective governance structure (Guluma, 2021). Shleifer and Vishny (1986) argue that concentrated ownership enables significant shareholders to effectively influence and control management. The problem with ownership concentration in Jordanian companies is the authority of large shareholders, who exercise control rights and may try to expropriate the company’s assets, resulting in beating minority shareholders.

Because of their huge economic interests, significant shareholders possess stronger incentives and motivation to oversee and influence the manager's conduct. Nganga (2017) investigates the relationship between ownership structure and company profitability using a cross-sectional survey design. Thirty-nine firms were selected using stratified random sampling. The results of the multivariate analysis and multiple regression analysis models indicate that each type of rights acquisition significantly impacts the firm's performance. Horobet et al. (2019) and Yasser & Al Mamun (2017) observed a positive effect of ownership concentrations on firm performance. According to Saleh, Zahirdin, & Octaviani (2017) and Shleifer & Vishny (1986), shareholders who own a large portion of shares have the ability and incentive to exert control and influence management decisions. This, in turn, reduces conflicts and maximizes the value of the owners, ultimately enhancing company performance.

Concentrating ownership in the hands of insiders was found to have a negative impact on performance (Paramanantham et al., 2018; Wang and Shailer 2015) discovered that ownership concentration has a statistically significant negative impact on firm performance, as indicated by the measures of return on assets. Concentrated ownership can lead to negative results, as major investors often control the allocation of resources to maximize their personal gains (La Porta et al., 1999). This can result in an increase in knowledge asymmetry among shareholders. Empirical studies examining the relationship between ownership concentration and firm performance have yielded varying results. Conflicts of interest can occur as a result of a concentrated ownership structure, as indicated by Vu, TuPhan, and TuyenLe's (2018) research. A widely distributed ownership structure limits shareholders' authority to oversee managerial activities, potentially resulting in a decline in the firm's performance. Investors are currently becoming more concerned about their investment choices. They are interested in investing in firms that have a strong governance structure. Shleifer and Vishny (1997) and La Porta et al. (1999) proposed that ownership concentration could serve as an alternative mechanism for corporate governance in emerging markets with inadequate investor protections.

Hypothesis (3): *large shareholders (ownership concentration) have a significant impact on Jordanian listed companies' performance.*

Study Methodology and Sample

The study sample consists of all manufacturing companies that were listed on the ASE (Amman Stock Exchange) from 2011 to 2021, specifically for the purpose of conducting panel data regression. The study sample consisted of 42 enterprises selected from the population. The data for the variables being studied in this research was obtained through content analysis of the financial reports that are published annually on the ASE website during the study period.

The Breusch and Pagan LM Test is used to distinguish between the pooled model and the random effect model. The test result indicates that the p-value for the Breusch and Pagan LM test is 0.000. Hence, it can be inferred that the random effect model is better suited for subsequent analysis (Breusch and Pagan, 1980). The regression analysis was conducted using a panel approach. To determine the most suitable GLS regression method, a Hausman test was performed, which yielded a chi2 value of 0.5465. Based on this result, it was determined that the random-effect GLS regression is the most appropriate. Therefore, a random-effect regression was carried out to test the study hypothesis.

breusch and pagan lagrangian multiplier test for random effects		
ROA (id, t = Xb + u (id)+ e (id, t))		
Estimated results:		
	Var	Sd = sqrt (Var)
ROA	98.61847	9.930683
e	57.20587	7.563456
u	33.03927	5.74798
Test: Var (u) = 0		
	$chibar2\ (01) = 239.15$	
	$prob\ > chibar2 =\ 0.000$	

The correlation coefficient analysis shown in Table 1 shows that there is no problem with the correlation between the IVs. This is due to the belief that a correlation coefficient exceeding 0.70 indicates the presence of a multicollinearity issue (Gujarati and Porter, 2008). The table shows that the correlation coefficients range significantly, ranging from 0 to below 0.70. Therefore, they do not present a risk to the estimation variables.

Table 1: Correlation Coefficient Analysis.

	ROA	CEO duality	Managerial ownership	Large shareholder	F size	leverage
ROA	1.000					
CEO duality	-0.0197	1.000				
Managerial ownership	-0.1039	-0.0745	1.000			
Large shareholder	0.1229*	-0.0128	0.2566*	1.000		
F size	0.2322*	-0.1071	-0.1550*	0.3189*	1.000	
leverage	-0.1839*	0.1923*	0.2808*	0.3241*	0.0052	1.000

It is crucial to address the issue of multicollinearity in order to conduct a multiple regression analysis. The variance inflation factor (VIF) test indicates the absence of multicollinearity (Gujarati and Porter, 2008), as the highest VIF is 2.53 in Table 2.

Table 2: VIF Test.

Variable	VIF	1/VIF
Large shareholder	1.35	0.743449
leverage	1.24	0.808186
Managerial ownership	1.22	0.819623
F size	1.21	0.823162
CEO duality	1.08	0.927748
Mean VIF	1.22	

Variables Definition

Previous research has primarily utilized established metrics, such as return on assets (ROA) and Tobin's Q, to assess the performance of business firms (Javeed et al., 2020). Corporate governance and accounting-based measurement studies are the most effective in assessing firm performance, as they accurately capture the executives' ability to enhance efficiency and generate profits (Javeed et al., 2020). Therefore, the study specifically evaluates firm performance through return on assets (Briones & Chang, 2017). The return on assets is calculated by dividing the net income before interest expenditure for a specific fiscal period by the total assets for the same period. The independent variables consist of corporate governance metrics: CEO duality, managerial ownership, and large shareholders. Including control variables like leverage and firm size helps to consider the potential impact of industry-specific factors on the relationship between board structures, ownership structure, and firm performance, thereby preventing any misleading associations.

CEO duality is the first independent variable. The question pertains to whether the CEO and the chairman of the board are the same individual. This variable is a dummy that has a value of 1 when the CEO serves as the board chairman and a value of 0 when there are separate individuals holding the positions of CEO and board chairman. The second independent variable. Managerial ownership, also known as ownership structure, encompasses the degree of ownership concentration. Managerial ownership is quantified by calculating the proportion of managers who hold equity shares in a company (Saleh, Zahirdin, & Octaviani, 2017). The third independent factor is large stakeholders, also known as ownership concentration. A proportion of major stakeholders own more than 5% of the shares as stated by Company law and ASE regulations. Ownership concentration refers to the highest number of block holders in a company (Murtaza & Azam, 2019; Paramanantham et al., 2018; Xinyuan, Nan, & Yufei, 2017). This action allows them to perform a re-audit of both the company's internal and external reports to detect any instances of non-compliance. Equation (1) summarizes the empirical model:

$ROA_{i,t} = \alpha 0 + \beta 1$ (CEO duality $_{i,t}$)+ $\beta 2$ (managerial ownership $_{i,t}$)+ $\beta 3$ (large shareholders $_{i,t}$) $+\beta 4$ (Fsize $_{i,t}$)$+\beta 5$ (leverage $_{i,t}$) $+ \varepsilon_{i,t}$

Results and Discussion

According to the sample, the findings suggest that, on average, 66% of the companies in the sample have CEO duality. This implies that the CEO has a more significant impact on the board. It is common practice in Jordan for the heads of companies to hold the positions of both chairman and CEO, particularly if they are the ones who established the business. The existence of CEO duality in the Jordanian listed firm indicates non-compliance with the stipulations and suggestions outlined in the Cadbury Report (1992) and the Jordanian corporate governance code (2006), both of which advocate for the separation of these two positions. As shown in Table 3, the coefficient value of CEO duality is -.0002541, while the P value is 0.769. Regarding the impact of CEO duality on ROA, the findings presented in the table demonstrate negative but statistically not significant effects. Therefore, when an individual holds two significant positions simultaneously, they are more likely to make decisions that prioritize their own interests over the performance of the company. This phenomenon, known as CEO duality, undermines the independence of the board and affects their ability to effectively supervise the management. CEO duality diminishes the efficacy of the board of directors. The results are consistent with prior research conducted by Chang et al. (2019).

As shown in Table 3, the coefficient value of managerial ownership is .3132013, while the P value is 0.015 which demonstrates a significant and positive correlation with firm performance. This implies that as managerial ownership increases, firm performance also increases. The result supports the agency model theory, which suggests that higher managerial ownership should reduce agency costs and consequently improve firm performance. Moreover, multiple research studies (e.g., Alabdullah, 2018; Ciftci et al., 2019; Kao et al., 2018) have discovered that when managers have ownership in a company, it has a positive impact on the company's performance.

Ownership concentration is a useful method for directing and managing the opportunistic behaviors of managers (Shleifer & Vishny, 1997). As shown in Table 3, the coefficient value of large shareholders is -7.194151, while the P value is 0.026, which indicates a statistically significant negative effect on the ROA throughout the study period. Higher levels of ownership increase the likelihood of encountering agency problems, and an excessive concentration of ownership in a business environment can detrimentally affect firm performance. Blockholders offer comparable advantages to ownership concentration. Hence, the modest percentage of blockholder ownership in Jordanian listed companies proves advantageous for the firm, as it effectively addresses the issue of agency conflict and enhances overall firm performance. The findings are in line with previous research conducted by Khan & Nouman (2017), Paniagua *et al.* (2018), and Wang & Oliver (2019). These studies have demonstrated a negative and statistically significant correlation between ownership concentration and firm performance.

Table 3: Regression Analysis.

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Random-effects GLS regression                   Number of obs     =        460
Group variable: id                              Number of groups  =         42

R-sq:                                           Obs per group:
     within  = 0.0194                                         min =          9
     between = 0.1683                                         avg =       11.0
     overall = 0.0921                                         max =         11

                                                Wald chi2(5)      =      16.37
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0059
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ROA	Coef.	Std. Err	Z	P>|t|	[95% conf. interval]	
CEO duality	-.0002541	.0008666	-0.29	0.769	-.0019526	.0014443
Managerial ownership	.3132013	.1291068	2.43	0.015	.0601567	.5662458
Large shareholders	-7.194151	3.241011	2.22	0.026	.8418863	13.54642
F size	8.60e-09	4.17e-09	2.06	0.039	4.26e-10	1.68e-08
Leverage	-.0576741	.0340141	-1.70	0.090	-.1243404	.0089923
_cons	-5.78002	2.15299	-2.68	0.007	-9.999803	-1.560237
sigma_u			5.5980747			
sigma_e			7.5613746			
rho		.35405536	(fraction of variance due to u_i)			

Conclusion

A corporate governance system, in general, is a mechanism that controls a company's operations and activities, particularly in management. The purpose of the current paper was to investigate how corporate governance practices affected the performance of the firm between 2011 and 2021. The study's findings demonstrate that CEO duality has negative impacts on firm performance. Stated differently, research indicates that the presence of CEO duality reduces the board of directors' efficacy. The initial hypotheses were disproved due to non-significant coefficients. The study's second and third hypotheses are accepted because the empirical data generally demonstrate a significant positive relationship between managerial ownership, large shareholders, and firms' performance for Jordanian-listed companies. The results of this study assist oversight bodies and regulators in evaluating and enhancing corporate governance systems.

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