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Research Article

Factors Impacting on Corporate Financial Performance: Evidence from Engineering Corporations

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ABSTRACT

This research aimed to investigate the influence of the board of directors on the financial performance of Jordanian engineering businesses listed on the Amman Stock Exchange (ASE) by assessing several variables, including board size, board independence, and CEO duality. Financial success is assessed by return on assets and Tobin's Q. Between 2013 and 2023, 143 engineering businesses were analysed. The research revealed that the indexed organisations at ASE from 2013 to 2023 had substantial financial success aligned with Jordan's enhanced comprehension and implementation of board of directors' characteristics. This research showed that board size and independence exerted an impact on CEO dualism about financial success. The report advises frequent evaluation of the codes and mandates that firms assess corporate governance principles via laws and regulations to promote adherence to these standards. Additionally, the expertise, commitment, and independence of board members are continuously evaluated. Stock exchanges need to provide seminars and workshops for business managers and decision-makers to improve comprehension of good corporate governance, particularly its significance.

Keywords: Board of director, Board Size, Board Independce, CEO Duality, Corporate Financial Performance.

INTRODUCTION

According to Richard et al. (2009), academics from various management areas are primarily interested in corporate performance. It is an essential metric for evaluating a corporation's ability to achieve its objectives, ensure its survival, and effectively compete in the market (Shatnawi et al. 2020). This indicator indicates the efficiency and effectiveness of an organisation in achieving its financial goals and operational objectives. The advancement and evolution of an organisation are reflected in its performance throughout time, demonstrating the degree to which it achieves its aims and objectives (Richard et al., 2009).

Corporate performance in the Jordanian engineering sector is influenced by a variety of factors, such as the Audit committee, Board of Directors, and Risk Committee. The efficacy of a corporation is significantly enhanced by the board of directors. The board of directors is a critical element of a company's governance structure, as it is responsible for overseeing and monitoring management practices to prevent managers from utilising resources in a manner that is detrimental to shareholder value (Shatnawi et al. 2020). In the engineering sector, where firms are confronted with a multifaceted array of ethical considerations and financial reporting requirements, the board of directors can have a substantial influence on the way these entities approach their reporting obligations.

Among the most prominent themes in corporate governance literature is the ongoing discussion on the effectiveness of boards of directors (Uribe-Bohorqueza et al., 2018). The efficiency is contingent, among other factors, on the composition and operation of the board, which influences corporate aims and performance. Consequently, it is essential to focus on this factor to enhance our comprehension of corporate governance.

In recent decades, several proposals about the composition and operations of the board of directors have been proposed and included into soft regulations (codes of corporate governance) (Cuomo et al., 2016). Common prescriptions recommend medium-sized boards, emphasising the need for increased independence and activity, along with a clear separation between the roles of the CEO and the Chairperson of the board (García-Ramos and García Olalla, 2011). Financial crises and failures of companies have shown the inadequacy of value and understanding in most of the published literature on corporate governance (McNulty et al., 2013). The academic literature has examined the link between the board of directors and corporate performance via many theoretical frameworks, including Agency Theory and Resource Dependence Theory, among others. Nonetheless, despite extensive study on corporate governance spanning decades, empirical data on the impact of board structure on business performance remains inconclusive (Paniagua et al., 2018), leaving several problems unresolved. What is the impact of board size, the participation of external directors, executive structure, and board engagement on company performance? Many corporations are departing from established governance frameworks, resulting in significant variability in board structures. Conversely, numerous companies are implementing governance recommendations due to institutional pressure rather than efficiency standards (García-Ramos et al., 2017), disregarding the fact that “externally imposed regulation on board activity can be costly and can have unintended consequences, as Hermalin and Weisbach (2006) argue” (Brick and Chidambaran, 2010: 534). The facts prompt to consider if governance suggestions should be uniform across all corporations; in other words, is there a singular best board structure applicable to all publicly listed organisations?

LITERATUREREVIEW

Prior work suggests that board size is a crucial element for attaining an ideal corporate governance structure (Paniagua et al., 2018; Tulung and Ramdani, 2018). The outcome is contingent upon the degree of objective alignment between owners and managers (Jaskiewicz and Klein, 2007: 1080). There are conflicting perspectives about the impact of board size on corporate success. From a theoretical perspective, as posited by Agency Theory, when shareholders are unable to properly oversee management, boards should be relatively big to mainly fulfil a monitoring function. The correlation between board size and business performance is anticipated to be favourable. Resource Dependence Theory posits that the link is anticipated to be favourable. By integrating the board's function as a resource provider, an additional director enhances the company's human and social capital (Pfeffer, 1972) and augments board information and specialised knowledge regarding the business, thereby elevating the quality of strategic decisions that ultimately affect firm performance (Hillman and Dalziel, 2003). Dalton et al. (1999) did a meta-analysis of 27 research and found that bigger boards correlated with enhanced company performance. Recent investigations further corroborate this notion (Beiner et al., 2006). While an increased number of directors enhances oversight, excessively large boards may incur additional costs due to free-rider issues and complications in control, coordination, and decision-making flexibility (Lipton and Lorsch, 1992; Jensen, 1993; García-Ramos et al. 2017), ultimately undermining the efficacy of board monitoring and leading to diminished firm performance. The dimensions of the board are explicitly specified only in the regulations of Spain and the United States, which stipulate a medium-sized board comprising between 5 and 15 members (Andrés and Santamaría, 2018). In contrast, other nations advocate for a board size that is suitable for fulfilling business needs, while avoiding excessive largeness that could lead to inefficiency.

Despite growing attention from scholars, practitioners, and regulatory entities, empirical studies have not provided definitive evidence about the impact of independent directors on corporate performance (Masulis and Zhang, 2019). In the literature, conflicting findings are evident (Busenbark et al., 2016; Dalton et al., 1999; Krause et al., 2017; Uribe-Bohorquez et al., 2018). While certain authors identify a positive correlation (Alshaboul, & Zraiq,2020), others assert a non-significant correlation (Hermalin and Weisbach, 1991; Volonté, 2015) and even a negative correlation (Shan and McIver, 2011) between these two variables. A favourable correlation between corporate success and board independence is anticipated based on the monitoring board's function. According to Agency Theory, independent outside directors encounter fewer potential conflicts of interest (Fama, 1980), thus “they are more inclined to advocate for shareholder interests, exercise control, oversee the fulfilment of corporate obligations (Huang, 2010)” (García-Ramos and García-Olalla, 2011: 223) and offer essential evaluations of management's performance (Daily and Dalton, 2015). Executive directors are distinguished by their dependency on the Chief Executive Officer (CEO) and possess their own motives (Dalton et al., 1999). The Resource Dependence Theory posits that the inclusion of independent outside directors is significant for the board's function as a resource provider, since they provide crucial connections to essential external resources (Daily and Dalton, 2015). Extensive and supplementary expertise offered by external directors, acquired via academic education and previous external employment, may be used by managers to develop and execute corporate objectives. McVey et al. (2005) and Ford (1992) assert that executive directors are essential for the board to fulfil its functions effectively, as independent directors may lack the requisite experience and knowledge regarding the firm and its stakeholders. Furthermore, acquiring this crucial information about the firm might be challenging for them. Executive directors, having dedicated their careers to the company they oversee, possess specialised knowledge that enables them to allocate resources effectively and facilitate communication between directors and managers (Carpenter and Westphal, 2001). Consequently, according to this resource provision function, either a positive or negative correlation between firm performance and board independence may be anticipated, depending upon the ratio of independent directors on the board. Notwithstanding the debate around the merits and drawbacks of independent directors, and the inconclusive findings in empirical studies, the inclusion of independent directors on boards remains a pivotal concern in governance rules. It is often advised that independent directors constitute a substantial percentage to enhance the quality of the board of directors.

CEO duality is a scenario when the same individual holds the positions of both Chief Executive Officer (CEO) and Chair of the Board of Directors inside a corporation. This relationship may significantly impact a corporation's financial success. Research has examined the relationship between CEO duality and financial success, offering insights into the implications of this governance structure. Insufficient Accountability and Oversight: CEO duality may result in a deficiency of objective supervision and responsibility. When the CEO also serves as Chair, it may diminish the board's efficacy in overseeing and scrutinising executive decisions. An observation using Fama and Jensen (1983) underscores the detrimental effects of CEO duality on company performance resulting from less control. CEO duality refers to the situation in which the Chief Executive Officer (CEO) concurrently acts as both the president of the organisation and the Chairman of the Board of Directors. It essentially denotes the CEO assuming a dual role as both the "CEO" and the "Chairman of the Board." This phenomenon undoubtedly has a complex impact on the organisation, with various outcomes that may be either detrimental or beneficial (Wang et al., 2019). There are strong reasons for separating these two jobs to improve the company's overall stability. The CEO's involvement in both jobs creates a conflict of interest, since they are effectively influencing choices about their own remuneration. Furthermore, this dual job enables the CEO to have considerable influence over the board's decisions, hence increasing the risk of abuse of their leadership authority. The influence of CEO duality on financial performance, assessed through ROA, Tobin's Q, and sales growth of firms listed on the Ghana Stock Exchange. Their findings indicate that designating different individuals as chairman and CEO reduces anticipated conflicts between management and board members, thereby positively impacting the performance of non-financial enterprises in Ghana (Qadorah & Fadzi, 2018). Kalsie and Shrivastav (2016) assert that the governance of a company's board is significantly influenced when the incumbent CEO concurrently holds the position of board chairperson. This suggests that the same individual often sets the schedule for board meetings while also controlling the issues discussed during these sessions. Furthermore, when the CEO also holds the position of chairman of the board, there is potential for influence over the nomination and appointment of candidates for board seats. This situation may lead to newly appointed board members being reliant on the administration, despite being classified as "outsiders," thereby compromising the board's independence. The primary responsibility of the board is to determine the appointment of the CEO. Consequently, the dual role of CEO and chairman may hinder the board's ability to make effective decisions regarding the replacement of underperforming managers. The poor performance of these managers is associated with their collusion with the CEO. The previous discussions are supported by agency theory, as they question the ability of an individual in conflicting roles within an organisation to make impartial decisions and whether personal interests may influence the decision-making process, thus impacting organisational oversight. CEO duality can enhance the CEO's authority; however, if mismanaged, it may reduce the effectiveness of board oversight (Ali, 2020). Stewardship theory offers a differing perspective, arguing that a CEO holding dual roles is likely to enhance decision-making efficiency and minimise delays in the decision-making process. Previous studies have demonstrated a significant negative effect of CEO duality on firm performance (Mubeen et al., 2020; Wang et al., 2019). Wang et al. (2019) conducted a study that revealed CEO duality, or its absence, did not significantly impact organisational performance.

Based on the justifications provided, the following hypotheses will focus on identifying the impact of the board of directors on the economic performance of Jordanian engineering listed companies:

H1: Board size has significant effect on engineering financial performance of Jordanian listed corporation.

H2: Board Independence has significant effect on engineering financial performance of Jordanian listed corporation.

H3: CEO duality has significant effect on engineering financial performance of Jordanian listed corporation.

METHODS

This study will focus on corporations listed on the ASE from 2013 to 2023. These corporations can be categorised into three sectors: industrial, service, and financial. However, this research is specifically confined to engineering corporations listed on the ASE during the period. At the conclusion of 2023, 20 firms in the engineering sector were listed on the ASE. This final sample comprises 13 companies, including the years 2013 to 2023, with a total of 143 observations.

To fulfil the aims of the present study and hypothesis, the following multiple regression model is introduced, enabling the evaluation of the influence of the Board of Directors on the performance of Jordanian engineering firms. The research model was as follows.

"$ROA = \beta_0 + \beta_1 BISZ_{it} + \beta_2 BIND_{it} + \beta_3 CEOD_{it} + \varepsilon_{it}$"

"$ROA = \beta_0 + \beta_1 BISZ_{it} + \beta_2 BIND_{it} + \beta_3 CEOD_{it} + \varepsilon_{it}$"

ROA: calculated by the proportion of total earnings to total assets.

TQ: Measured by adding the equity market value of the corporation and debt book value divided by the book value of a total asset.

BISZ: The number of directors on the board.

BIND: the number of independent directors on the board.

CEOD: Coded "1" if Chairman also holds the position of CEO and "0" otherwise.

RESULTS

Table 1 Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BISZ	143	4	15	8.45	2.780
BIND	143	0	5	2.87	1.257
CEOD	143	0	1	.48	.501
ROA	143	-12.5300	19.0600	4.744650	6.2118091
Tobin Q	143	.1300	5.4500	1.854615	1.2398829

Table 1 indicates that the minimum board size is 4, the highest is 15, the mean is 8.45, and the standard deviation is 2.78. Therefore, this discovery is similar to the finding of Alshaboul, & Zraiq, 2020. The Descriptive Statistics indicated a minimum Board Independence value of 0 and a maximum of 5. The mean value for Board Independence is 2.87, with a standard deviation of 1.25. Furthermore, this result aligns with the findings of. Furthermore, this outcome aligns closely with the discovery of Qadorah & Fadzi, 2018. The descriptive statistics indicate that most engineering corporations registered in ASE adhere to the Jordanian corporate governance code regarding the separation of the CEO and Chairman roles. The results indicate that the minimum statistic is 0, while the maximum statistic is 1. Consequently, the findings indicate that the standard deviation is 0.501, while the mean statistic is 0.48. The descriptive statistics reported results that were consistent with those obtained previously Ali, 2020. The maximum value for ROA of engineering corporations listed in ASE is 19.06, while the minimum value stands at -12.53. The average value is 4.74, while the standard deviation is 6.21. In addition, this finding is relative to the result of Alshaboul, & Zraiq,2020. The descriptive statistics indicate that the minimum value of Tobin Q is 0.13, while the maximum value is 5.45. The descriptive statistics indicate that the mean value of Tobin Q is 1.85, with a standard deviation of 1.23. This finding is similar to the finding of Alshaboul, 2024.

Table 2 Correlation coefficients

t	BISZ	BIND	CEOD	ROA	Tobin Q
BISZ	1				
BIND	.561**	1			
CEOD	.266**	.203*	1		
ROA	.507**	.470**	.477**	1	
Tobin Q	.495**	.221**	.163	.238**	1

Table 3 Model 1-2

Variable / Indicator	Model 1 (ROA)		Model 2 (TQ)	
	t	Sig.	t	Sig.
(Constant)	-4.607	.000	.146	.884
BISZ	3.491	.001	5.898	.000
BIND	3.113	.002	-.973	.332
CEOD	5.294	.000	.516	.607
R Square	.424		.251	

it may be inferred that there is no statistically significant association among between BISZ and return on asset (t = 3.491, p = .001). The conclusion was derived from the findings of the regression analyses conducted on the variables of BSIZ and ROA. The findings of the research suggest that there is no significant correlation among between the number of board members and the level of financial performance shown by corporations in Jordan. In other terms, it might be argued that the mere existence of a substantial board membership does not adequately guarantee a favourable return on assets. The findings of Tobin's Q model indicate a statistically significant link between the quantity number of board members and Tobin's Q (t=5.898, p=0.000). As shown in Table 6, the Tobin's Q of the Jordanian corporations rises when there are more directors on the board. This indicates that corporations with a higher proportion of board members have a greater propensity to substantially enhance their corporation's financial performance. The fact that there was a substantial correlation among between BISZ and Tobin's Q provides support for the notion that boards with smaller surface areas tend to have lower effectiveness (Jensen, 1993). In addition, several studies have provided empirical evidence confirming the presumption of agency theory that there is a link among between a large BISZ and the financial performance of corporations (Kalsie and Shrivastav 2016, and Alaryan 2017). The significant link between BIND and return on asset (i.e., t = 3.113, p =.002), as shown by the findings of the regression analysis done BIND and financial performance of a corporation as measured by the ROA model. According to the findings of the investigation, there is a significant correlation between the number of independent board members and the level of corporation financial performance that occurs in Jordan. Hence, the existence of a sizable number of Independence members is sufficient to guarantee a strong return on assets. This result is consistent with (Orazalin et al., 2015). However, the regression results of this research utilising the Tobin Q model demonstrate that there is an insignificant correlation between BIND and Tobin Q (t = -.973, P= .332). Due to the ineffective monitoring functions of independent directors, the outcome demonstrated that board independence did not ensure improved business performance (Garg, 2007).

As a result, there is a statistically significant connection between CEOD and ROA (t = 5.294, P =.000). This discovery aligns with the principles of agency theory as it confirms the distinct roles and duties of the board chairman and the CEO. Consequently, they are expected to mitigate any conflicts of interest and maintain efficient managerial oversight. This discovery illustrates the distinct requirements of the chairman of the board and the CEO, so confirming that these two positions entail divergent responsibilities. Furthermore, these results are close to the findings of (Fauver et al., 2017 and Withers and Fitza 2017). Conversely, Tobin's Q model produced statistically insignificant findings (t =.516, p =.607). The results are close to those of other research, such as the one conducted by (Wan and Ong, 2005), which found that there is no significant association between having a dual role as CEO and corporate financial performance. The results of the current research are close to those of earlier researchers Such as (Schmid & Zimmermann, 2008). This conclusion may be supported based on several different causes including variations in corporate legislation, capital markets, the internal capital structure of the corporation, and the structure of corporate ownership.

DISCUSSION

This study sought to examine the variables influencing the financial performance of engineering businesses in Jordan that are listed on the Amman Stock Exchange (ASE), addressing a research gap particularly relevant to small, open economies. We used Return on Assets (ROA) and Tobin's Q as measurements for business financial performance, while BISZ, BIND, and CEO duality served as indicators of the board of directors. The influence of board of directors' characteristics on indicators was evaluated, adjusting for a standard set of financial factors, using a sample of 143 engineering firms throughout the study period (2013–2023). The study indicated that the board of directors greatly influences financial success. The report advocates for regular assessment of governance rules and directs corporations to evaluate corporate governance principles via laws and regulations to enhance compliance with these standards. Our findings highlight the significance of governance indicators for company performance and provide suggestions for enhancing board and audit efficiency and effectiveness. The constraints of the study are as follows: The study only targets engineering businesses listed on the Amman Stock Exchange, facilitating scalability for future enquiries. The study inadequately measured the impact of macroeconomic conditions on firm financial performance, necessitating more examination.

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