

THE MEDIATING EFFECT OF THE CAPITAL STRUCTURE ON THE RELATIONSHIP BETWEEN THE BOARD OF DIRECTORS AND THE FIRM PERFORMANCE: EVIDENCE FROM JORDAN

MOHAMMAD MUSTAFA HAZA¹ & AHMAD HUSNI HAMZAH¹

¹ Faculty of Economics and Management, Universiti Sultan Zainal Abidin, 21300, Kuala Nerus, Terengganu, Malaysia.

Correspondent Email: ahmadhusni@unisza.edu.my

Received: 10 January 2024

Accepted: 26 February 2024

Published: 19 March 2024

Abstract: This study examines the mediating effect of capital structure on the relationship between the board of directors and the firm performance of listed companies on the Amman Stock Exchange. In this study, we examined the capital structure by total debt to total asset ratio, whereas board size and board independence it was to investigate the influence of the board of directors, while Tobin's Q was used to measure firm performance. Using sample of 72 firms from the industrial and service companies from 2017 to 2021, the findings showed that board size and board independence have a positive and significant effect on firm performance. Meanwhile, the board size has a negative and significant effect on capital structure, while board independence has a positive and significant effect. This study also found the capital structure has a partial mediation effect on the relationship between Board Size and firm performance. The results indicate that the capital structure has no mediation relationship between Board Independence and firm performance. This study shows the empirical evidence to assist executed times, and stakeholders in their decision. Consequently, these findings provide evidence for executives, and regulators in Jordan.

Keywords: board Size, board independence, board of director, capital structure, firm performance.

Cite This Article:

Mohammad Mustafa Haza & Ahmad Husni Hamzah. (2024). The Mediating Effect of The Capital Structure on The Relationship Between The Board of Directors and The Firm Performance: Evidence from Jordan. *International Journal of Advanced Research in Islamic Studies and Education (ARISE)*, 4(1), 35-51.

INTRODUCTION

Corporate governance plays a significant role in determining the financial performance of firms, as does the capital structure (Khatib et al., 2022). In spite of this, there is a lack of research regarding how and through which channels corporate governance impacts a firm's performance (Nasrallah & El Khoury, 2022). Governance mechanisms are primarily examined in terms of their effect on financial performance and capital structure (Ngatno et al., 2021). Firm performance is influenced by corporate governance mechanisms (Enache & Hussainey, 2020). There are corporate governance practices including board size, independence of the board, board gender diversity, CEO duality, ownership concentration, frequency of board meetings, and CEO compensation (Boshnak, 2021).

Leverage policies were the major cause of firm's financial crises (Roychowdhury et al., 2019). However, it is a fact that characteristics of the board of directors can predict the performance of the firm as where the results indicated that board size affect the firm performance positively whereas board independence affects it negatively due to less informed outside directors (Martín-Ugedo et al., 2019). The financial market in Jordan has a significant role in the development of Jordan's economy (Al-Smadi, 2018). Jordan is a small nation in the Arab world situated in southwest Asia (Alfoul, 2022). Extensive measures are taken regarding the legal and organizational structure for rebuilding and changing economy transparency (Daoud et al., 2022). However, the focus is on Amman Financial Market and the importance of fairness and productivity is recognized (Bataineh et al., 2021).

A study based on agency theory found that corporate governance affects a firm's capital structure (Javeed & Lefen, 2019). In addition, if capital structure is a mediating variable, then the effect will be indirect (Dakhli, 2021). As well, the choice of a firm's capital structure has a substantial impact on its performance (Chadha & Seth, 2021). The firm's capital structure is a mix of debt and equity. The method by which a firm finances its operations is called capital structure (Lisa, 2021). The importance of capital structure is twofold because at one end it could affect the risk of the firm or the cost of the firm and at the other end, it could influence the value of the firm (Ngatno et al., 2021). The most crucial decision taken by the firms' management is about capital structure (Mills & Mwasambili, 2022). The importance of capital structure could also be judged by the fact that if a firm fails to opt for an optimal leverage level and debt gets higher, the bankruptcy probability automatically gets increased which is effected to the firm's survival (Hoang, 2021). Jordanian firms usually have a high level of debt because bankruptcy costs are lower in these firms (Elhaj, 2021). Also, it is expected that positive characteristics of the board of directors would affect firm performance.

THEORETICAL BACKGROUND

Agency Theory:

Agency theory is based on a relationship that exists between the principal (owner) and agent (manager), in which the principal delegated his work to his agent . (Jensen & Meckling, 1976) The theory suggests that the manager will be motivated by self-interest rather than to promote the owner's interests. Conflict of interests among the two parties is the cause of the agency problem. In a situation where conflict of interest arises between managers and shareholders, decisions are commonly taken by managers. Solomon (2004) argues that these decisions are generally in managers' best interests and not shareholders. Agency theory suggests that board size can influence firm performance, but the relationship is complex and context-dependent. When it comes to the relationship between board size and firm performance, agency theory offers some insights. With regard to the Board independence and Agency theory conflicts of interest may arise between the shareholders and the management of a firm. These conflicts occur because the agents may prioritize their own interests over those of the shareholders. Board independence is one mechanism that can potentially mitigate these conflicts and align the interests of the agents with those of the principals.

LITERATURE REVIEW

Board directors and Firm's Performance

Corporate governance involves the board of directors monitoring the company's performance. Thus, a reasonable size of the board is preferred (Ghayad, 2008). It has been concluded by a number of researchers that large boards enhance company performance (Hussain & Mallin, 2003). As an alternative, some researchers have found that a smaller board of directors enhances the performance of the company (Al-Matari, 2020). In addition, Abdulsamad, Fauziah, and Lasyoud (2018) investigated the impact of board characteristics on the performance of firms they found the result were mixed when testing the influence of board characteristics on firm performance. For instance, independent directors were positively correlated with firm performance, while the size of a firm's board was not significant. By including the board of directors' structure, new avenues will be opened for researchers and regulators to explore the importance of the board of directors' structure for the performance of the firm (Shukeri et al., 2012). The results of this study indicate that there is a significant and positive association between board size and financial performance. However, it is not only the size of the board that is important. Moreover, their independence affects their performance positively (Jouirou & Bechir, 2014; Malik & Makhdoom, 2016). As a result, the following hypotheses are developed:

H_{1a}-H_{1b}: The size and independence of the board have a significant impact on the performance of the firm.

Board directors and Capital Structure

The board of directors is the highest body that is accountable to manage the company's operations where, in strategic decisions, they are significantly accountable to maintain the optimum level of capital structure mix, and accessing external financing becomes easier with a larger board size (Chancharat et al., 2012). Accordingly, a positive relationship has been found between board size and capital structure (Nadarajah et al., 2018). The impact of board characteristics on capital structure dynamics and the speed of adjustment has been examined by Ezeani et al. (2022) to discover that corporate board characteristics such as board diversity, board independence, board size, and board meetings negatively impact firms' capital structure and ability to adjust to target leverage levels. A study conducted by Mulwa and Ndede (2021) examined board characteristics and capital structure decisions of Kenyan commercial banks over a period of five years. The study concluded that all the characteristics of the board of directors studied were significant influences on the capital structure decisions made by commercial banks in Kenya. Consequently, independent directors and capital structure have been found to be positively correlated. As a result, the following hypotheses are formulated:

H_{2a}-H_{2b}: Capital structure is significantly influenced by board characteristics (board size and board independence).

Capital Structure and Firm Performance

The companies with more profitable operations tend to debt is preferred over equity (Hadlock & James 2002). In general, companies that have obligations attached to their debt perform better since they are required to pay interest on their debt. Thus, a positive correlation has been established between performance and capital structure (Narang, 2018; Abdullah & Tursoy, 2021). Consequently, firms strive to optimize the combination of available different types of debt and equity in order to ensure shareholders' wealth or minimize their weighted average cost of capital. Accordingly, it may be possible for capital structure to affect the firm performance (Ganiyu, Adelopo, Rodionova, & Olawale, 2019). Additionally, Ullah et al. (2010) have demonstrated that companies with a greater level of leverage always experience higher levels of profitability. The impact of capital structure and firm growth on firm performance was noted by Abughniem et al. (2020) in the Jordanian context. Based on these empirical results, it appears that capital structure has a positive effect on the performance of a firm. This leads to the following hypothesis:

H₃: Capital structure and firm performance have a significant relationship.

Mediating Effect of the Capital Structure

The firm needs finance to operate and leverage and in return, the financial performance will increase (Ahmed et al., 2018; Dao & Ta, 2020). In recent years, numerous scholars and stock exchange markets have examined the positive impact of capital structure on financial performance (Alabdullah et al., 2018; Chang et al., 2019; Pham, 2020). Additionally, a company should have effective corporate governance, including an appropriate board structure, in order to ensure a higher level of firm's performance and increased capital structure (Sewpersadh, 2019; PeiZhi & Ramzan, 2020). Numerous studies have examined the relationship between board characteristics and capital structure. Different studies have examined the relationship between board characteristics and capital structure, such as (Alabdullah et al., 2018; Meah, 2019; Ullah et al., 2019; Zaid et al., 2020).

One of the most commonly tested relationships among listed companies is the impact of corporate governance on financial performance. A number of studies have examined the impact of different variables, such as characteristics of the board of directors (Saidat et al., 2019; Ullah et al., 2019; Kyere & Ausloos, 2021). As a result, the proper use of capital structure is closely related to the effective management and governance of the company and contributes to its success (Ahmed et al., 2018). There have been only a few studies that have examined capital structure as a mediator; therefore, it is reasonable to assume that capital structure can mediate between board characteristics and financial performance. A previous study examined the mediation between capital structure and other constructs, but this study provides a more comprehensive examination of the relationship between capital structure and financial performance. As a result, the following hypotheses are developed:

H_{4a}-H_{4b}: The capital structure mediates the relationship between Board characteristics (board size and board independence) and the firm's performance.

METHODOLOGY

This study focuses on all companies' services, and industrial listed on the Amman stock exchange between 2017 and 2021. These companies have appropriate data and measures regarding all the proposed variables and their projected scales. It is estimated that there are about 72 companies listed on the Amman stock exchange According to (2021 Amman stock exchange reports).

This study deals with a sample consisting of a non-financial sector for listed Jordanian firms across-sectional study through collecting the primary data from the annual reports for the year between 2017 and 2021. Data collected from total of 72 non-financial listed companies on ASE (40 service companies and 32 industrial companies) were included in the final sample.

Measurement of Variables

Board Size

Board size is referring to the total number of members serving on a firm's board. These definitions are therefore regarded to reflect the precedent of previous literature in the corporate governance field (Muchemwa et al., 2016). There are various ways to measure the size of a board, one of which is to look at the number of directors on a company's board in a given financial year (Gandía, 2008; Abubakar et al., 2014; Alabdullah et al., 2018).

Board Independence

One of the most important attributes of an effective board is that it consists of a majority of independent outsiders. As a measure of board independence, the number of independent directors is compared to the total number of directors on the board of the company (Barroso et al., 2018). In general, the larger the number of outside board members, the better. As a result, the board becomes more independent and able to provide higher levels of corporate governance to shareholders (Tulung & Ramdani, 2018).

Capital Structure

This research theoretically questions whether the firm's capital structure mediates the relationship between corporate governance and firm performance. To measure capital structure, following Sheikh and Wang (2012); Ahmad et al. (2015) this study uses the total debt to total asset ratio to measure capital structure. These ratios are considered significant because they provide "an indication of a company's overall liabilities in relation to its total assets". If the ratio is high, it means that the firm adopts more leverage and assumes more risk. An important metric in corporate finance is the debt-to-equity ratio. The ratio reflects the quantification of

the level at which firm operations are financed through “debt versus wholly-owned funds”. Particularly, it shows shareholders' equity's abilities to front overall outstanding debt during businesses' deterioration.

Firm Performance

Performance measurements have been classified into two broad categories in the literature defining corporate governance. The first type of intervention is accounting-based, while the second type is market-based. Corporate governance mechanisms research studies use both market-based and accounting-based measures to assess firm performance. Additionally, studies on performance assessment will potentially contribute to the performance monitoring phase by improving motivation and communication, identifying concerns, and measuring progress (Waggoner et al., 1999). Although much attention has been paid recently to assess corporate governance efficacy by various performance metrics used in companies, this analysis evaluated the firm's efficiency through the Tobin Q model.

Tobin's Q was identified by James Tobin. The theorist describes it as the book value ratio relative to the company's market value of equity and the cost of replacing the company. Tobin's Q describes that the market value of all stock market companies should be near or equal to their replacement costs. There are two possible reasons for the amount of Tobin's Q: a low Tobin's Q (between 0 and 1) or a high Tobin's Q (greater than 1). Lower Tobin's Q means that the cost to replace a firm's assets is much higher than its stock value. This implies that the stock is undervalued. A high Tobin's Q indicates that a firm's stock is more expensive than the replacement cost of its assets, which implies that the stock is overvalued. Tobin's Q (TQ) formula is:

$$Tobins\ Q = \frac{(MVE+BVD)}{BVA}$$

Where (BVA) represents the book value of the total assets, (BVD) represents the book value of the debt, and (MVE) represents the market value of the total equity.

Model Specification

The present study examined the mediating effect of capital structure on the relationship between board characteristics and firm performance. In order to analyze the data, a Multiple Regression technique was used since it was found to be an appropriate statistical method. Additionally, a multiple regression equation is developed to investigate the hypothesized relationship between the dependent variable and the independent variables. (Sekaran & Bougie, 2016) provide the equations for direct, indirect, and direct including mediation. The following equations are considered:

$$FP_{it} = \beta_0 + \beta_1 BZ_{it} + \beta_2 BI_{it} + \beta_3 FZ_{it} + \varepsilon_{it} \quad (1)$$

$$CS_{it} = \beta_0 + \beta_1 BZ_{it} + \beta_2 BI_{it} + \beta_3 FZ_{it} + \varepsilon_{it} \quad (2)$$

$$FP_{it} = \beta_0 + \beta_1 CS_{it} + \beta_2 FZ_{it} + \varepsilon_{it} \quad (3)$$

$$FP_{it} = \beta_0 + \beta_1 CS_{it} + \beta_2 BZ_{it} + \beta_3 BI_{it} + \beta_4 FZ_{it} + \varepsilon_{it} \quad (4)$$

Where, β_0 represents the constant value, $\beta_1, \beta_2, \beta_3, \beta_4$, represents the slopes, and ε is the error term. Time series data are represented by T, while cross-sectional data are represented by I. In addition, FP represents firm performance, CS represents capital structure, BZ represents board size, BI represents board independence, and FZ represents firm size.

RESULT AND DISCUSSION

Descriptive Statistics

A description of the variables under study is presented in Table 1. As can be seen in Table 1, the mean values of the independent variables do not show much dispersion. As a result, the variables are distributed evenly across the sample size of the data. Therefore, board size comprises a minimum of 4 to a maximum of 14 members. The board size mean value is 7.997, which indicates that most listed companies follow the recommendations of the JCGC (2009) that the number of board of directors should be between 5-13 members. Similarly, Lipton & Lorsch (1992) pointed out that the number of board of directors should not be more than 8-9 members. Furthermore, the mean of board independent is 0.631. This shows that listed companies follow the JCGC (2009) recommendations that one-third of the board should be independent.

Table 1: Descriptive Statistics

	TQ	CS	BZ	BI	FZ
Mean	0.967846	0.366776	7.997222	0.631915	26655056
Median	1.029082	0.376678	7.000000	0.666660	15000000
Maximum	1.070094	0.422585	14.000000	1.000000	1.88E+08
Minimum	0.575972	0.018993	4.000000	0.000000	555000.0
Observations	360	360	360	360	360

TQ: Tobin's Q; CS: capital structure; BZ: board size; BI: board independence ; FZ: firm size.

The capital structure is shown in Table 1 to have a mean value of 0.367, a maximum value of 0.422, and a minimum value of 0.018. These values indicate maintaining the proper balance between maximizing the company's wealth and worth and minimizing its cost of capital. However, Tobin's Q rates in Jordanian-listed companies is 1.070. A high Tobin's Q

(greater than 1) implies that a firm's stock is more expensive than the replacement cost of its assets, which implies that the stock is overvalued.

Board Directors and Firm's Performance

According to Table 2, the results were consistent with the hypothesis model and support. The results show that, board size and board independence directly affect the performance of Jordanian companies.

In this study, Jordanian industrial and service companies (ASE) can increase and improve their performance by increasing the board size and independence. In other words, a large board size enables them to provide quality expertise, diverse opinions, and ensure good governance by applying their diversified knowledge and experience, and the independence of the board is also applicable. In general, the findings of this study are consistent with the agency theory. A considerable body of research certify that firm performance is highly influenced by board size (Hussain et al., 2019; Kanakryah 2021). As a result, the effectiveness of the board is increased as the board's size increases, since the larger committee has a greater number of experienced and qualified members. in a study, Paul M. Guest (2009) find that board size has a strong negative impact on Tobin's Q This evidence also is inconsistent with this study . Past studies have also documented a negative relationship between board independence and firm performance in an emerging market, for example in Bangladesh (Rashid et al., 2012) .Moreover, when there is a higher level of independence among the members of the board, the board is able to observe and monitor management practices with greater effectiveness and power. This finding is not surprising, as the previous studies found the same result (Hussain et al., 2019; Kanakryah, 2021).

Table 2: Fixed Effect Regression of Board of Directors on Firm's Performance

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Sig.
BZ	0.021977	0.002459	8.936297	0.0000	*
BI	0.316044	0.034029	9.287592	0.0000	*
FZ	-1.14E-10	1.45E-10	-0.786226	0.4326	---
LAGTQ	1.029192	0.032131	32.03087	0.0000	
C	-0.399339	0.059396	-6.723377	0.0000	
R-squared	0.499793	Mean dependent var		0.967846	
Adjusted R-squared	0.499720	S.D. dependent var		0.140898	
F-statistic	13640.64	Durbin-Watson stat		1.834329	

Prob(F-statistic) 0.000000

* significant at 1%. ** significant at 5%. *** significant at 10%.

TQ: Tobin's Q; BZ: board size; BI: board independence; FZ: firm size.

Board Directors and Capital Structure.

Table 3 shows that board independence has a significant and positive effect on Capital Structure. While board size has a significant and negative effect on Capital Structure. This implies that if these variables increase one unit, it leads to an increase in Capital Structure by 0.10655 (BI effect) and a decrease in Capital Structure by -0.02980 (BZ effect). Furthermore, as for the control variable which is the firm size has a negative but insignificant influence on Capital Structure.

These results were consistent with the hypothesis model and support. Hypothesis (2a-2b) states that "board size and board independence have a significant effect on a capital structure." This outcome indicated that board size and board independence have a significant direct effect on the capital structure in Jordanian companies.

The results of the study indicate that board size has a negative influence on capital structure. Accordingly, the study findings recommend that firm in Jordan hire fewer directors considering the research's findings. Because making decisions would be more challenging in a large board, the findings do not support the necessity for a higher board size in non-financial Jordanian firms (service and industrial sectors). It's important that the results support the alternative theory, which contends that board size and capital structure are strongly correlated but negatively.

A considerable body of research attests that capital structure is highly influenced by board size (Mwambuli, 2018; Ezeani et al., 2022). This evidence also is inconsistent with the negative relationship between board size and capital structure was documented by several researchers (Bajagai et al., 2019; Mulwa and Ndede, 2021). However, these studies found an insignificant relationship between board size on capital structure Thakolwiroj and Sithipolvanichgul (2021).

According to the study's findings, board independence has an impact on capital structure. It is generally accepted that independent outside directors would operate in the best interests of shareholders due to their legal obligation to do so, and board independence is recommended in many international corporate governance best practices recommendations. The results of this empirical study showed that board independence has a positive effect on a capital structure. This finding is expected, confirmed by previous studies that found the same result (Mulwa & Ndede, 2021; García & Herrero, 2021). However, these studies are inconsistent with those (Mwambuli, 2018; Thakolwiroj & Sithipolvanichgul, 2021; Ezeani et al., 2022).

Table 3: Fixed Effect Regression of Board of directors on Capital Structure

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Sig.
BZ	-0.029806	0.003777	-7.890977	0.0000	*
BI	0.106552	0.047129	2.260844	0.0245	**
FZ	-4.81E-11	2.80E-10	-0.172072	0.8635	---
LAGCS	1.036419	0.022083	46.93188	0.0000	
C	0.550383	0.054317	10.13284	0.0000	
R-squared	0.479688	Mean dependent var	Mean dependent	0.366776	
Adjusted squared	R- 0.479578	S.D. dependent var	S.D. dependent	0.061644	
F-statistic	9064.504	Durbin-Watson stat	Durbin-Watson	1.806600	
Prob(F-statistic)	0.000000				

* significant at 1%. ** significant at 5%. *** significant at 10%.
TQ: Tobin's Q; BZ: board size; BI: board independence; FZ: firm size.

Capital Structure on Firm's Performance.

According to the hypothesis model, this result supported hypothesis 3, which states that capital structure has a significant impact on performance. Based on this analysis, capital structure has a significant indirect effect on a firm's performance in Jordan.

It appears that the capital structure of Jordanian industrial and service firms (ASE) has the potential to affect firm performance, indicating that the capital structure is capable of producing good performance for the firm. The correct composition of capital structure is essential for the success and long-term survival of the firm as it increasing the debt in the capital structure may have a negative impact on firm value since more debt means more interest obligations and higher bankruptcy risk. It was found that the current study is consistent with the findings of previous studies (Dao & Tram, 2020; Kharabsheh et al., 2017).

However, this study is not consistent with the work of Farhan et al., (2020) regarding the optimal capital structure depends on factors such as industry dynamics and the cost of capital. As a result of strong capital, a company is less exposed to risks, which reflects its high performance level and its position in terms of finance practices.

Table 4: Fixed Effect Regression of Capital Structure on Firm's Performance

Variable	Coefficient	Std. Error	t-Statistic	Prob	Sig.
CS	0.121886	0.036129	3.373659	0.0009	*
FZ	1.53E-10	1.70E-10	0.900216	0.3690	---
LAGTQ	0.877285	0.032226	27.22294	0.0000	
C	0.166569	0.034397	4.842560	0.0000	
R-squared	0.565712	Mean dependent var		0.967846	
Adjusted R-squared	0.565612	S.D. dependent var		0.140898	
F-statistic	9993.896	Durbin-Watson stat		1.931980	
Prob(F-statistic)	0.000000				

* significant at 1%. ** significant at 5%. *** significant at 10%.
 CS: capital structure; FZ: firm size.

Regression Analysis for the Mediation Variable

Table 5 summarizes the significance (P-value) of the variables in the three models. Table 5 indicate that the mediating variable (capital structure) and independent variables (board size and board independence) still have a significant effect on the dependent variable (firm performance). Therefore, the results indicate that the mediator variable (capital structure) has both partial and no mediation effects on the relationship between the independent variables and the dependent variable (firm performance).

Table 5 Summary of the Regression Analysis for the Mediation Effect of Capital Structure on the Relationship between Board of Directors and Firm Performance

Variable	Direct effect		Indirect effect		Mediating effect		Result
	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.	
CS	---	---	----	---	-0.159739	0.0000	---
BZ	0.021977	0.0000	-0.029806	0.0000	0.017991	0.0000	Partial Med.

BI	0.31604	0.0000	0.106552	0.024	0.342638	0.0000	No Med.
	4			5			

FP: firm performance; CS: capital structure; BZ: board size; BI: board independence.

The results indicate that the mediator variable (capital structure) partially mediates the relationship between board size and firm's performance. The significant indirect effect of the board size on capital structure. The related to the result of the study, when there are more members on the board, the effect on capital structure is negative. Related to the result of the study, when there are more members on the board, the effect on total debt is negative. These findings are also supported by Alves et al., (2015) and Heng et al., (2012) who found that a company with a higher number of directors reduces its debt ratio and adds risky assets to increase its performance. This is because larger boards of managers may influence to lessen the efficiency of monitoring activities. This activities such as coordination, communication, and decision making can make a burdensome for larger boards of executives and thus make their role become less effective.

The results regarding the mediating effect of capital structure on the relationship between board independence with a firm's performance do not meet the conditions of the Causal Steps Method, a capital structure cannot mediate effect on the relationship between board independence and firm performance, this result consistent with RIA, R. (2023), . Therefore Capital structure decisions can affect, such as the level of debt financing, can affect a company's financial health and flexibility. If a company with a high proportion of independent directors chooses a capital structure with excessive debt, it may face financial distress or be forced to make suboptimal investment decisions). Which can ultimately impact firm performance.

CONCLUSION

This study aimed to investigate The Mediating Effect of the Capital Structure on the Relationship between the Board of Directors and the Firm Performance by using the sample of 72 Jordanian companies enlisted in the Amman Stock Exchange (ASE) from 2017 to 2021. Using the ASE website to retrieve the data from the selected companies, this study used the panel data method. A Multiple Regression technique was adopted as the tool of analysis since it was found appropriate for the data analysis.

This study concluded that there is a positive and significant association between board of directors' size and board of directors' independence with firm performance. While a negative and significant association between the board of directors' size and capital structure, and a positive and significant of board of directors' independence with capital structure. In addition, there is a positive effect of capital structure on the firm performance. Regarding the mediating effect, the current study's findings showed that the capital structure has a partial mediating on the relationship between the board of directors' size and firm performance and no mediating on the relationship between the board of director's independence and firm performance.

This study contributes the literature to the literature in its investigation of the relationship between the board of directors and firm performance and the mediation effect of

capital structure. Therefore, this study contributes to the field of corporate governance and firm performance, in addition to, the mediation effect of the capital structure by investigating the link between the board of directors' mechanisms and firm performance in emerging economies such as Jordan, by providing evidence of the mediation effect of the capital structure on the board of directors and firm performance in the Jordanian capital market.

Finally, for future research in both developed and developing countries, consideration must be increased to investigate the relationship between these variables (board of directors, firm performance, and the mediation effect of capital structure) to identify the results from a different perspective and from different levels of development in the countries. In addition, future research should investigate other variables, such as the board of directors' meetings, board of directors' financial experience, board of director's ownership, CEO duality, and others that may influence the performance of the firm.

References

- Abubakar, B. A., Garba, T., Sokoto, A. A., & Maishanu, M. M. 2014. Corporate board gender diversity and performance: Evidence from Nigerian stock exchange. *The Economic Journal of Nepal* 34(4): 239–260.
- Abughniem, M. S., Al Aishat, M. A. H., Hamdan, A., & Weshah, S. R. 2020. Capital structure, firm growth and firm performance: Evidence from Jordan. *International Journal of Innovation, Creativity and Change* 10(12): 655–667.
- Ahmad, N., Salman, A., & Shamsi, A. F. 2015. Impact of Financial Leverage on Firms' Profitability: An Investigation from Cement Sector of Pakistan. *Research Journal Of Finance And Accounting* 6(7): 75–81.
- Ahmed, F., Awais, I., & Kashif, M. 2018. Financial leverage and firms' performance: Empirical evidence from KSE-100 Index. *Etikonomi: Jurnal Ekonomi* 17(1): 45–56.
- Ajmera, B. 2019. An Empirical Study on Effect of Capital Structure on Financial Performance of Paper Manufacturing Companies in India: Penal Data Analysis. *International Journal of Financial Management* 9(3): 18–25.
- Alabdullah, T. T. Y., Laadjal, A., Ahmed, E. R., & Al-Asadi, Y. A. A. 2018. Board Features and Capital Structure in Emerging Markets. *Journal of Advanced Management Science* 6(2): 74–80.
- Alfoul, M. N. A. 2022. Effects of ICT Investment and Usage on Economic Growth in MENA Countries: Does Governance Matter? Swinburne University of Technology.
- Al-Matari, E. M. 2020. Do characteristics of the board of directors and top executives have an effect on corporate performance among the financial sector? Evidence using stock. Corporate Governance: *The International Journal of Business in Society* 20(1): 16–43.
- Alves, P., Couto, E. B., & Francisco, P. M. 2015. Board of directors' composition and capital structure. *Research in International Business and Finance* 35: 1-32.
- Bajagai, R. K., Keshari, R. K., Bhetwal, P., Sah, R. S., & Jha, R. N. 2019. Impact of ownership structure and corporate governance on capital structure of Nepalese listed companies. *Business Governance and Society: Analyzing Shifts, Conflicts, and Challenges* 9(Chapter22): 399–419.

- Barroso, R., Ben Ali, C. & Lesage, C. 2018. Blockholders' Ownership and Audit Fees: The Impact of the Corporate Governance Model. *European Accounting Review* 27(1): 149–172.
- Bataineh, H. A., Al Harthy, S. S. & Al Balushi, R. A. 2021. The Relationship Between Corporate Governance Practices and Financial Performance: Evidence from Amman Stock Exchange. *Journal of Finance and Investment Analysis* 10(1).
- Butt, S. A. & Hasan, A. 2009. Impact of ownership structure and corporate governance on capital structure of Pakistani listed companies. *International Journal of Business & Management* 4(2): 50–57.
- Chadha, S. & Seth, H. 2021. Ownership structure and capital structure: a panel data study. *International Journal of Business Innovation and Research* 24(3): 385–396.
- Chancharat, N., Krishnamurti, C. & Tian, G. 2012. Board structure and survival of new economy IPO firms. *Corporate Governance: An International Review* 20(2): 144–163.
- Chang, C.-C., Batmunkh, M.-U., Wong, W.-K. & Jargalsaikhan, M. 2019. Relationship between capital structure and profitability: Evidence from Four Asian Tigers. *Journal of Management Information and Decision Sciences*.
- Dakhli, A. 2021. The impact of ownership structure on corporate tax avoidance with corporate social responsibility as mediating variable. *Journal of Financial Crime*.
- Dao, B. T. T. & Ta, T. D. N. 2020. A meta-analysis: capital structure and firm performance. *Journal of Economics and Development* 22(1): 111–129.
- Daoud, I. Y. H., Dehnavi, S. & Ribbe, L. 2022. Towards Good Water Governance: An Analysis of Jordan's National Water Strategy. *Environmental Management* 1–14.
- Durana, P., Michalkova, L., Privara, A., Marousek, J. & Tumpach, M. 2021. Does the life cycle affect earnings management and bankruptcy? *Oeconomia Copernicana* 12(2): 425–461.
- Elhaj, M. R. 2021. Understanding distress and default in Jordanian companies using multiple discriminant analysis. *Global Business and Economics Review* 25(1): 40–50.
- Enache, L. & Hussainey, K. 2020. The substitutive relation between voluntary disclosure and corporate governance in their effects on firm performance. *Review of Quantitative Finance and Accounting* 54(2): 413–445.
- Ezeani, E., Kwabi, F., Salem, R., Usman, M., Alqatamin, R. M. H. & Kostov, P. 2022. Corporate board and dynamics of capital structure: Evidence from UK, France and Germany. *International Journal of Finance and Economics* 3(1): 1–18.
- Gandía, J. L. 2008. Determinants of internet-based corporate governance disclosure by Spanish listed companies. *Online Information Review* 32(6): 791–817.
- Ganiyu, Y. O., Adelopo, I., Rodionova, Y., & Olawale, L. 2019. Capital Structure and Firm Performance in Nigeria. *African Journal of Economic Review* VII(I): 31–56.
- García, C. J. & Herrero, B. 2021. Female directors, capital structure, and financial distress. *Journal of Business Research* 136(1): 592–601.
- Ghayad, R. 2008. Corporate governance and the global performance of Islamic banks. *Humanomics* 24(3): 207–216.
- Heng, T. B., Azrbajani, S. & San, O. T. 2012. Board of directors and capital structure: Evidence from leading Malaysian companies. *Asian Social Science* 8(3): 123–136.

- Hoang, H. 2021. Capital Structure and Firm Growth: The Case of Vietnamese Listed Firms. University of the West of England.
- Hussain, S. H. & Mallin, C. 2003. The dynamics of corporate governance in Bahrain: structure, responsibilities and operation of corporate boards. *Corporate Governance: An International Review* 11(3): 249–261.
- Hussain, Shahzad, Ahmad, T. & Hassan, S. 2019. Corporate Governance and Firm Performance Using GMM. *International Journal of Information, Business and Management*, 11(2): 300–316.
- Javeed, S. A. & Lefen, L. 2019. An analysis of corporate social responsibility and firm performance with moderating effects of CEO power and ownership structure: A case study of the manufacturing sector of Pakistan. *Sustainability* 11(1): 248.
- Jensen, M. C., W. H. M. 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3(4): 305–360.
- Jouirou, M., & Bechir, M. 2014. The determinants of voluntary disclosure in Tunisia : A study of the firms listed in the Tunisian stock exchange. *Journal of Business and Management Research* 4(March): 84–95.
- Kanakryah, R. 2021. The impact of board of directors' characteristics on firm performance: a case study in Jordan. *The Journal of Asian Finance, Economics and Business* 8(3): 341–350.
- Kharabsheh, Buthiena, Mohammad AL-Gharaibeh & Ziad Zurigat. 2017. Capital Structure and Firm Performance: Framework. *International Journal of Economic Research* 14:473-87.
- Khatib, S. F. A., Abdullah, D. F., Elamer, A. & Hazaea, S. A. 2022. The development of corporate governance literature in Malaysia: a systematic literature review and research agenda. *Corporate Governance: The International Journal of Business in Society*.
- Kim, J., & Lee, A. S. 2021. Liability Dollarization and Exchange Rate Pass-Through. Available at SSRN 3941940.
- Kyere, M. & Ausloos, M. 2021. Corporate governance and firms financial performance in the United Kingdom. *International Journal of Finance & Economics* 26(2): 1871–1885.
- Lisa, O. 2021. Analysis of Effect of Capital Structure, Company Size and Distribution of Funds against Third Party Financing and Its Implication on Profitability (Studies in Islamic Cooperative Baitul Maal Tamwil in Indonesia). *E-Repository Dosen Universitas Gajayana Malang*.
- Malik, M. S., & Makhdoom, D. D. 2016. Does corporate governance beget firm performance in Fortune Global 500 companies? *Corporate Governance (Bingley)*, 16(4): 747–764.
- Martín-Ugedo, J. F., Mínguez-Vera, A. & Rossi, F. 2019. Female directors and firm performance in Italian and Spanish listed firms: does masculinity matter? *Academia Revista Latinoamericana de Administración*.
- Meah, M. R. 2019. The efficiency of corporate governance on capital structure: An empirical study from listed manufacturing firms in Bangladesh. *Asian Journal of Accounting and Governance* 11(1): 13–23.
- Mills, E. F. E. A. & Mwasambili, J. J. 2022. Capital structure and firm value nexus: the Ghanaian experience. *International Journal of Applied Decision Sciences* 15(1): 46–67.

- Muchemwa, Munyradadzi Raymond, Padia, Nirupa & Callaghan, Chris William. 2016. Board Composition, Board Size and Financial Performance of Johannesburg Stock Exchange Companies. *South African Journal of Economic and Management Sciences* 19(4): 497-513.
- Mulwa, H. M. & Ndede, F. W. S. 2021. Board Characteristics and Capital Structure Decisions of Commercial Banks in Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting* 3(2): 129–143.
- Mulwa, H. M. & Ndede, F. W. S. 2021. Board Characteristics and Capital Structure Decisions of Commercial Banks in Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting* 3(2): 129–143.
- Mwambuli, E. L. 2018. How Does Board Structure Characteristics Affect Capital Structure Decisions? Evidence from East African Stock Markets. *Journal of Corporate Governance Research* 2(1): 1–25. \
- Nadarajah, S., Ali, S., Liu, B. & Huang, A. 2018. Stock liquidity, corporate governance and leverage: New panel evidence. *Pacific-Basin Finance Journal* 50(4): 216–234.
- Nasrallah, N. & El Khoury, R. 2022. Is corporate governance a good predictor of SMEs financial performance? Evidence from developing countries (the case of Lebanon). *Journal of Sustainable Finance & Investment* 12(1): 13–43.
- Ngatno, Apriatni, E. P. & Youlianto, A. 2021. Moderating effects of corporate governance mechanism on the relation between capital structure and firm performance. *Cogent Business and Management* 8(1): 1866822.
- Osakwe, A. C., Ezeabasili, V. N. & Chukwunulu, J. I. 2019. Effect of dividend policy on stock prices: Evidence from Nigeria. *International Journal of Economics and Financial Management* 4(3): 31–45.
- Oshnak, H. A. 2021. Corporate governance mechanisms and firm performance in Saudi Arabia. *International Journal of Financial Research* 12(3): 446.
- Oudat, M. S., Ali, B. J. A. & Qeshta, M. H. 2021. Financial Performance and Audit Committee Characteristics: An Empirical Study on Bahrain Services Sector. *Journal of Contemporary Issues in Business and Government* 27(02): 1–11.
- Paul M. Guest 2009 The impact of board size on firm performance: evidence from the UK, *The European Journal of Finance* 15:4, 385404.
- Pei Zhi, W., & Ramzan, M. 2020. Do corporate governance structure and capital structure matter for the performance of the firms? An empirical testing with the contemplation of outliers. *PLoS ONE* 15(2): 1–13.
- Pham, C. D. 2020. The effect of capital structure on financial performance of Vietnamese listing pharmaceutical enterprises. *The Journal of Asian Finance, Economics and Business* 7(9): 329–340.
- Rashid, A. De Zoysa, S. Lodh, K. Rudkin Reply to “response: Board composition and firm performance: Evidence from Bangladesh a sceptical view “*Australasian Accounting Business and Finance Journal* 6(3): 121-131.
- Roychowdhury, S., Shroff, N. & Verdi, R. S. 2019. The effects of financial reporting and disclosure on corporate investment: A review. *Journal of Accounting and Economics* 68(2–3): 101246.

- Ria, R. 2023. Determinant Factors of Corporate Governance on Company Performance: Mediating Role of Capital Structure. *Sustainability* 15: 2309.
- Saidat, Z., Silva, M., & Seaman, C. 2019. The relationship between corporate governance and financial performance: Evidence from Jordanian family and nonfamily firms. *Journal of Family Business Management* 9(1): 54–78.
- Santoso, B., Sidharta, E. A. & Wardini, A. K. 2020. The impact of fundamental factors on stock return of the engineering and construction services company. *Jurnal Organisasi Dan Manajemen* 16(2): 158–170.
- Sekaran, U. & Bougie, R. 2016. *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sewpersadh, N. S. 2019. A theoretical and econometric evaluation of corporate governance and capital structure in JSE-listed companies. *Corporate Governance (Bingley)*, 19(5): 1063–1081.
- Sheikh, N. A. & Wang, Z. 2012. Effects of corporate governance on capital structure: Empirical evidence from Pakistan. *Corporate Governance (Bingley)*: 12(5), 629–641.
- Shukeri, S. N., Shin, O. W. & Shaari, M. S. 2012. Does Board of Director's Characteristics Affect Firm Performance? Evidence from Malaysian Public Listed Companies. *International Business Research* 5(9): 120–127.
- Solomon, J. & Solomon, A. 2004. The role of transparency in corporate governance. *Corporate Governance and Accountability* 119-143.
- Thakolwiroj, C. & Sithipolvanichgul, J. 2021. Board Characteristics and Capital Structure: Evidence from Thailand Listed Companies. *The Journal of Asian Finance, Economics, and Business* 8(2): 861–872.
- Tulung, J. E. & Ramdani, D. 2018. Independence, size and performance of the board: An emerging market research. *Corporate Ownership and Control* 15(2): 201–208.
- Ullah, A., Pinglu, C., Ullah, S., Zaman, M. & Hashmi, S. H. 2020. The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. *Heliyon* 6(8): 1–10.
- Waggoner, D. B., Neely, A. D. & Kennerley, M. P. 1999. Forces that shape organisational performance measurement systems: an interdisciplinary review. *International Journal of Production Economics* 60: 53–60.
- Yoshikawa, T. & Phan, P. H. 2003. The performance implications of ownership-driven governance reform. *European Management Journal* 21(6): 698–706.